

U.S. DEPARTMENT OF COMMERCE
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# NOAA FINAL REPORT TO BLM Environmental Studies of the South Texas Outer Continental Shelf 1976

A report to the Bureau of Land Management, Department of Interior, on work conducted under provisions of the Interagency Agreement, #AA550-IA7-3, during calendar year 1976.

Ichthyoplankton/ Mackerel Eggs and Larvae

GOTA

DECEMBER 1977

SOUTHEAST FISHERIES CENTER GALVESTON LABORATORY



GALVESTON, TEXAS

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#### Ichthyoplankton/Mackerel Eggs and Larvae

Element Leader: Dr. Joseph W. Angelovic NMFS, SEFC Galveston Laboratory, Galveston, Texas

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#### Contributors

John H. Finucane L. Alan Collins NMFS, SEFC Panama City, Florida, Laboratory

John D. McEachran, Ph.D.
Texas A&M University, College Station, Texas

#### Editor

William B. Jackson
Branch Chief, Reports/Publications
Environmental Research Division
NMFS, SEFC Galveston Laboratory
Galveston, Texas

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#### EXECUTIVE SUMMARY

During this survey, 75,082 fish larvae and 40,033 eggs were collected. Pelagic larvae representing 71 families, 108 genera and 71 species were identified. All collections were made with paired 61 cm bongo net plankton samplers using nets of 333  $\mu$  and 505  $\mu$  mesh. MARMAP I sampling techniques and procedures were used throughout the survey. Family dominance varied by season. Larval species diversity was greatest during May and June and lowest during January and February. The dominant larvae were gobies, anchovies, codlets and bothids. Based on the numbers of eggs per cruise, the late winter (January-February) appeared to be the major spawning time for fishes in the study area during 1976, although spawning occurred throughout the year. King mackerel larvae were found in all cruise samples which were taken from May through September, but the greatest numbers occurred in September. The larvae of Spanish mackerels were collected from June through September; the greatest numbers were caught in September. The exact end of the mackerel spawning was not documented since sampling was not done in October. No mackerel larvae were caught in November. Larvae of the king mackerel generally occurred at the stations of intermediate depth (40-100 m); the lowest abundance was found in shallow waters (18-34 m). In contrast, Spanish mackerel larvae were most abundant in water depths of 18-34 m. No positive identification of mackerel eggs was obtained during this study because of the inability to obtain ripe females for either natural or artificial spawning experiments from known parentage. The high numbers of fish eggs and larvae indicate that these waters are important spawning and nursery areas for many forage, sport and commercial species. The presence and abundance of larvae of bluefin tuna, Spanish

and king mackerels, and other scombrids indicates that the waters off the Texas coast are a major spawning ground for these species.

A direct comparison of fish eggs and larvae between 1975 and 1976 was not possible, because gear types and mesh sizes of the nets were different each year. In general, the major larval taxa for both years were similar, although more genera and species were collected in 1976 due to the greater sampling effort and better coverage of the area. Copepod abundance was often high at the same time that larval fish abundance was high when both were collected simultaneously. No direct statistical correlation of salinity and temperature with ichthyoplankton was attempted, since some of these data were not taken concurrently with the bongo tows. For the same reason neuston data were not directly comparable to other ichthyoplankton data because neuston samples were collected on separate benthic cruises. Neuston catches did indicate that larger numbers of eggs were collected on or near the surface and that larval sizes were often greater than larvae captured by bongo tows.

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#### INTRODUCTION

During the 1976 ichthyoplankton survey additional ichthyoplankton data were collected to provide an expanded data base from our previous South Texas OCS 1975 study. This research was part of a broad interdisciplinary survey of the neritic and oceanic waters off the Texas coast and covered an area extending from the Mexican border to about 28°12'N (Figure 1). During both years the primary purpose of these studies was to determine the species composition, relative abundance and seasonal and areal distribution of ichthyoplankton. In addition, spawning times and locations of major species were documented to provide data on the ecology of the area; selected fish families were classified during the study according to egg developmental stages.

One of the major changes in our program during 1976 was an increase in sampling frequency from three cruises a year to nine cruises a year. The seasonal coverage in 1976 was continued at all the 12 stations originally sampled in 1975 during Jan./Feb., May/June and September (Cruises 1, 4 and 7). In addition, monthly sampling was conducted in March, April, July, August, November and December (Cruises 2, 3, 5, 6, 8 and 9) at only the Transect II stations offshore from Port Aransas, Texas. The station coverage in Transect II was also increased from 3 to 7 stations by the addition of 4 stations which extended our maximum depth coverage to about 180 m (Figure 1). The exact station locations and depths are listed in Table 1. This additional coverage permitted almost monthly sampling in at least part of the study area. It also provided additional knowledge of spawning duration for many of the fishes in this survey.

<sup>1/</sup>All tables and figures except figures 1 and 2 discussed in the ichthyoplankton section of this report are found in Appendix A.

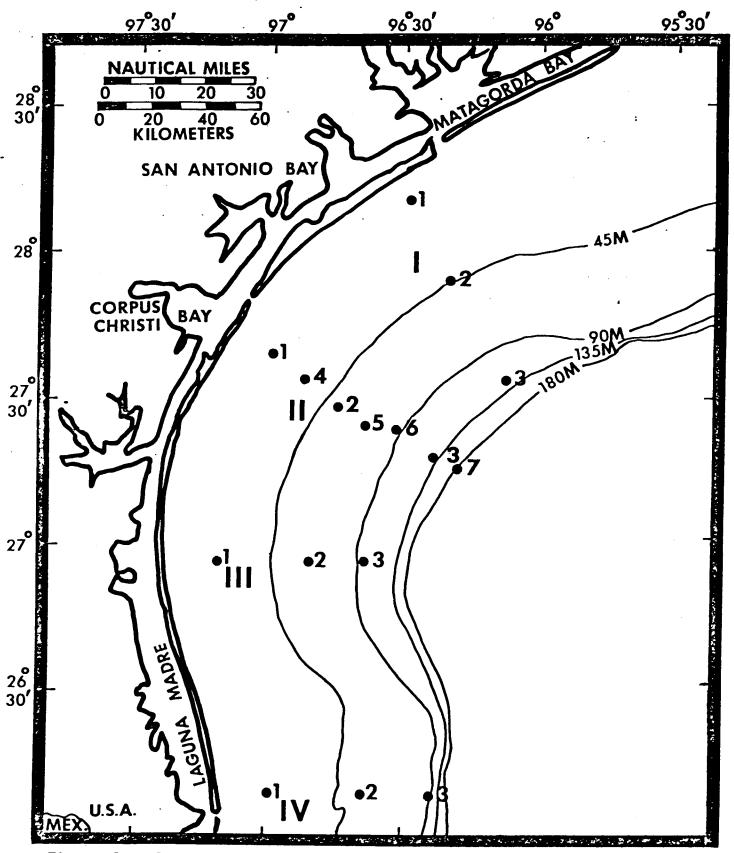


Figure 1. Location of ichthyoplankton sampling stations for 1976 by transects.

In 1976 we changed the sampling gear from a 1-meter 250  $\mu$  mesh net to the paired bongo samplers of 333  $\mu$  and 505  $\mu$  mesh. This was done in an attempt to standardize sampling to conform with MARMAP specifications. It also enabled us to compare our sampling effort with other ichthyoplankton investigators that have used similar gear and procedures in plankton studies throughout the world.

In this report, when possible, our ichthyoplankton data were compared between the South Texas OCS and two adjacent study areas (Figure 2).

Three additional transects and 22 stations were added for this purpose and were sampled during quarterly cruises from May 1976 to February 1977.

These studies were funded by MARMAP and EPA and extended our sampling coverage of the Texas coast from Port Isabel to Galveston. In addition, a comparison was made to show any trends noted between the South Texas OCS zooplankton monitoring study and the ichthyoplankton study. Plankton samples for both studies were collected during the same cruise.

We also compared our ichthyoplankton data from bongo (oblique) net tows and from neuston (surface) net tows, so that some of the differences between surface and subsurface ichthyoplankton could be documented, even though these tows were taken during different cruises.

The northwestern Gulf of Mexico provides a variety of environments for fishes. The limiting factors determining the distribution and relative abundance of many fish species are water temperature and salinity (Hoese and Moore, 1977). Temperature change is less extreme at the bottom than the surface. Generally, the deeper continental shelf waters have less variable salinity and temperature than the shallower coastal waters. For example, the Flower Garden reefs that lie along the 100 fathom curve offshore from Galveston, Texas, usually have

<sup>2/</sup>Marine Resources Monitoring, Assessment, and Prediction (MARMAP) 3/Environmental Protection Agency (EPA)

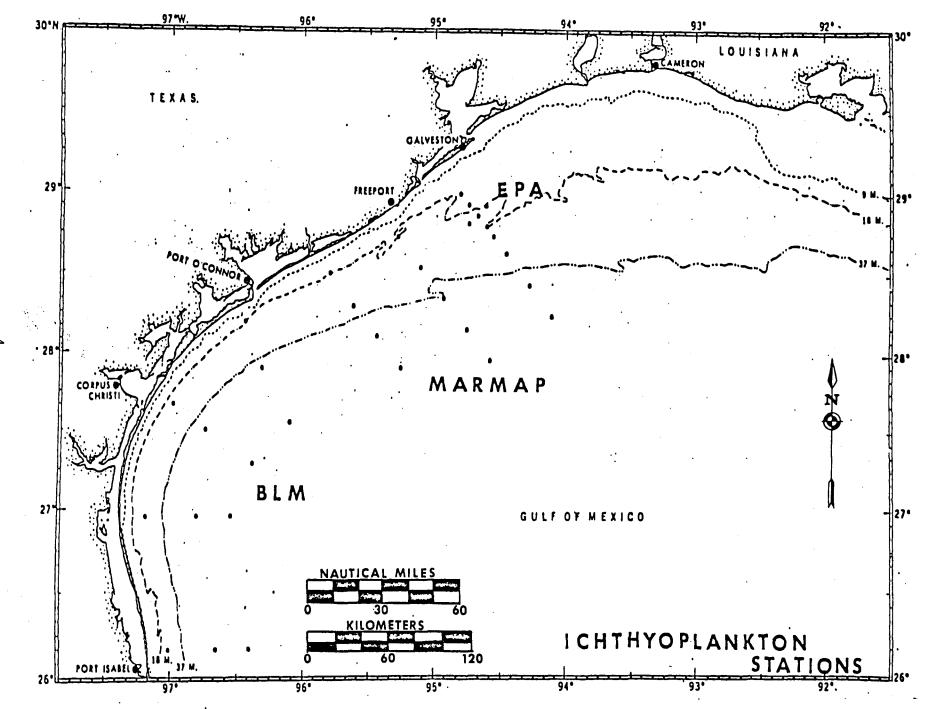


Figure 2. Ichthyoplankton sampling areas covered during BLM, MARMAP and EPA surveys in 1976.

bottom temperatures above 20°C and salinities above 35°/oo which allow corals and coral reef fishes to live there. A comparison of salinity and temperature changes on the distribution and abundance of selected larval fish taxa is given in Appendix table 1.

Little published information is available on the fish eggs and larvae of the northwest Gulf of Mexico. The baseline ichthyoplankton survey that we completed in 1975 for the Bureau of Land Management provides the only comprehensive coverage of the continental shelf waters in this part of the northern Gulf (Finucane, 1976). Even though the literature on ichthyoplankton from the Gulf of Mexico is sparse, extensive publications on juvenile and adult marine fishes of Texas helped us to determine the resident fishes in the study area. Early studies by Gunter (1945, 1950 and 1959) established the great species diversity and richness of the known fish fauna off the South Texas coast. Hoese (1958) and Parker (1965) compiled check lists of estuarine and marine fishes caught in Texas waters. More recently, Galloway et al. (1972), Walls (1975) and Hoese and Moore (1977) added additional reference material on the fishes of Texas and the northern Gulf. The papers by Briggs (1958), Power et al. (1972) and Pequegnat et al. (1977) were useful in determining the known ranges and occurrences of various species in the Gulf of Mexico. Hoese (1965) gives some spawning times of marine fishes in the Port Aransas, Texas, area.

Identification of fish larvae from the study area was made whenever possible from our own reference collections compiled from various plankton studies in the Gulf of Mexico extending from the Florida Everglades to Texas. Because knowledge of the early life history of many marine fishes is still unknown, some identification was based on

available references of similar genera or species from other areas of the country. Particularly useful was the paper on meristic characteristics of some marine fishes of the western North Atlantic by Miller and Jorgenson (1973). Other papers covering the early life histories of certain species were helpful. They included: Aprieto (1973) who described the early development of some carangid fishes in the Atlantic and Gulf of Mexico; Jannke (1971) on sciaenid fish larvae of the Florida Everglades and Houde and Fore (1973) on the eggs and larvae of clupeid fishes in the Gulf of Mexico. Additional references used to identify larvae were Wollam (1970) for Spanish and king mackerels; Mansueti and Hardy (1967) on the development of fishes of the Chesapeake Bay region; Jutare (1962) on the biology of Bothus ocellatus and Scotton et al. (1973) on a guide to fish larvae of Delaware Bay. Specimens representing various groups such as the bothids, bregmacerotids, myctophids, serranids, scombrids and eel leptocephali were sent to specialists to verify our identifications. Some larvae and most eggs were not identified to family level due to the lack of reference material. Many of the larvae were too small or mutilated to identify and were recorded as unknowns.

The family classifications of most fishes were those of Berg (1940) but some reflect changes given by Bailey et al. (1970). For archiving of larval data the bionumeric code developed by Bullis et al. (1972) was used. A complete tabulation of all larval taxa and egg abundance from bongo tows during this study is shown by date, transect, station, mesh size, numbers per 1,000 m<sup>3</sup> and size range (SL) in Appendix table 2.

#### METHODS AND MATERIALS

All ichthyoplankton collections during this survey were made with bongo samplers using standard MARMAP techniques (Jossi et al. 1975). The paired bongo net samplers have a mouth opening of 61-cm and are fitted with nets of 333  $\mu$  and 505  $\mu$  mesh throughout the nets (Posgay et al. 1968). A digital, direct reading General Oceanics flowmeter was mounted inside the frame of each net to determine the amount of strained water. Timed double oblique tows from the surface to near the bottom were made on all cruises. The tow consisted of a wire release at 50 m/min. until the desired depth was reached followed by a 20 m/min. wire retrieval. The wire was kept as close to a  $\mu$ 5° angle as possible at a ship's speed of about 2-3 knots. The angle of stray of the towing wire was recorded for each 10 m of wire retrieved. Net tows were made during both day and night depending on the time that the ship occupied a particular station. All nets were towed from the stern of the vessel.

Plankton nets were rinsed down with seawater using a deck hose to collect the entire plankton sample in the cod-end buckets. After draining through a 100  $\mu$  screen the samples were transferred to jars containing 7% tuffered formalin in seawater. The displacement volume (Table 2) of each sample was taken in the laboratory with a plankton volume gauge (Yentsch and Hebard, 1957) after removal of large ctenophores, sargassum and detrital material.

The mesh size, date and time of collection, water filtered and total numbers and calculated numbers of eggs and larvae per 1,000 m<sup>3</sup> for each cruise are shown in Tables 3-11.

Fish eggs and larvae were removed from the entire plankton sample, not from aliquots. All larvae were counted and identified to the lowest possible taxon. Fish larvae were measured to the nearest 0.1 mm (standard length). Only a few eggs were identified to family, although all eggs were counted. The developmental egg stages of selected taxa helped us to determine more precisely the time and place of spawning.

The salinity and temperature data were collected by STD casts on the hydro cruise. In this report only the salinity and temperature means were used to compare with the distribution and abundance of selected families.

#### Abundance and species composition

During this baseline survey, a total of 75,082 fish larvae and 40,033 eggs was collected during the sampling year in the waters off the South Texas OCS. The actual numbers of eggs and larvae for each cruise are given in Tables 3 to 11. The greatest egg abundance occurred during late January/early February (Cruise 1), and the least occurred during November (Cruise 8). The greatest larval abundance occurred during December (Cruise 9), and the least during March (Cruise 2). Pelagic larvae representing 71 families, 108 genera and 71 species were identified during this study. The ten most abundant families by cruise and for all cruises are given in numbers per 1,000 m<sup>3</sup> for all plankton samples (Table 12). All taxa are given alphabetically for each of the nine cruises in Tables 13 to 21 by family, genera and species, and a complete listing of all taxa by transect and station is given in Table 22.

The distribution and abundance of the six dominant families (Bothidae, Carangidae, Clupeidae, Sciaenidae, Scombridae and Serranidae) and of representative genera and species are shown in Figures 3 to 86, where they are shown in numbers per 1,000 m<sup>3</sup>. These representative larvae were chosen because of their importance as commercial, sport or forage fishes. The data indicate that the abundance of larvae varied among families, genera, species, cruises, transects and stations. For example, the lefteye flounders (Bothidae) were most abundant during Cruise 7 while the jacks (Carangidae) were least abundant during Cruise 8 (Figs. 7 and 19). The jacks reached their peak abundance during Cruise 4 while the herrings (Clupeidae) were abundant during Cruise 3 (Figs. 15 and 20).

The drums (Sciaenidae) followed a pattern similar to the herrings and were most abundant during Cruises 8 and 9 (Figs. 36 and 37). The tunas and mackerels (Scombridae) were about equally abundant during Cruises 4 and 7, while the grouper and snapper (Serranidae) reached their peak of abundance during Cruise 4 (Figs. 41, 44 and 48).

When the abundances of representative species were compared to their respective families, in most cases similar abundance patterns were noted. For example, the eyed flounder, <u>Bothus ocellatus</u>, and the rough scad, <u>Trachurus lathami</u>, and the little tunny, <u>Euthynnus alletteratus</u>, were generally most abundant when their respective families were (Figs. 60, 63 and 74). This indicated that these species accounted for major portions of those families. In contrast, the round herring, <u>Etrumeus teres</u>, was present in greater abundance during Cruise 2, while the family occurred most abundantly during Cruise 7 (Figs. 26 and 68).

#### Seasonal occurrence

Sampling during 1976 covered all months of the year except October. Larval species diversity as shown in Table 12 was greatest during May and June (Cruise 4) and lowest during March and April (Cruises 2 and 3). The highest numbers of larvae occurred during September (Cruise 7) and the lowest during January and February (Cruise 1).

Family dominance varied by season (Table 12). For example, Myctophidae (lanternfishes) was the dominant family during January and February, and Clupeidae (herrings) was the dominant family during March and April. From May through August Engraulidae (anchovies) was the dominant family while from September through December Gobiidae (gobies) was the dominant family.

The seasonal occurrence of fish eggs generally followed a similar pattern. The highest numbers of eggs were collected during March and April, while the fewest eggs were collected in November and December.

#### Distribution

The distribution of all fish larvae is shown in Figures 3-86 by cruise, transect and station for selected families, genera and species and in Figures 87-104 for all larvae collected from the 505  $\mu$  plankton samples and all the eggs from the 333  $\mu$  samples. The percentages and numbers per 1,000 m<sup>3</sup> for larvae and eggs were also plotted (Figs. 105-120). These data indicate that no consistent larval distribution pattern was noted either inshore-offshore or in north-south directions.

Distribution of larvae by family, genera and species did vary throughour the year. For example, the Carangidae generally occurred more frequently and in greater numbers in the offshore waters at depths exceeding 45 m (Figs. 12, 13 and 15), while the Clupeidae occurred more frequently in the inshore waters of intermediate depths less than 45 m (Figs. 20, 23, 26 and 27). The reverse pattern was noted for the clupeid, Etrumeus teres, and the serranid, Diplectrum sp., which were more frequently collected in greater numbers at intermediate depths (Figs. 67-70 and 78-86).

Egg distribution often followed a different pattern than larval distribution. Fish eggs were generally more abundant in water depths less than 45 m and were less abundant as water depths increased (Figs. 96-104). These data indicate that egg abundance decreases (in an inshore-offshore direction) and were usually least abundant at water depths exceeding 135 m.

#### Spawning

Because of the greater sampling coverage during 1976 we were better able to document the spawning pulses throughout the year, especially at the Transect II stations where we had almost monthly coverage (Table 23). We again followed egg development of selected families that could be reliably identified (Fig. 121) and were able to show for the first time their abundance and distribution on a family level (Table 24). Eggs of the dragonet (Callionymidae) and the herring (Clupeidae) were present during all but one cruise which suggests almost continual spawning for these families. The anchovies (Engraulidae) occurred during all but Cruises 8 and 9, while the lightfishes (Gonostomatidae) occurred during all but Cruises 2 and 6. The mullets (Mugilidae) were restricted to Cruises 1, 2, 5, 8 and 9. The tunas and mackerels (Scombridae) were only absent during Cruise 2 and the soles (Soleidae) only during Cruise 6. These data indicate that many fish spawn over extended time periods throughout much of the year.

Egg stages, especially those of early cleavage, indicate that the general spawning areas for these families were often restricted. For example, the dragonets, lightfishes and mullets preferred the deeper offshore waters for spawning while the herrings, anchovies and soles frequently spawned in water of intermediate depths.

The abundance of these selected families in numbers per 1,000 m<sup>3</sup> also follow a similar pattern of distribution (Table 24). General egg abundance and distribution from all Transect II stations are shown in Table 25 by cruise and station in percentage of total catch and in numbers per 1,000 m<sup>3</sup>. These data show the patchy distribution of eggs, but they also indicate that during certain times of the year spawning is concentrated either

inshore or offshore. For example, during Cruise 4 (May/June) most of the eggs occurred shoreward from Station 2 at intermediate depths while during Cruise 2 (March) spawning occurred with great intensity throughout most of Transect II with the exception of Station 7, which was our deepest shelf station (180 m).

The size range of larvae and their relative abundance can give another indication of spawning time, place and intensity (Figs. 3-86). To show some of the early larval developmental stages and sizes we have illustrated selected fish taxa (Figs. 122-129). In some cases these selected genera and species were being recorded for the first time from plankton collections in the northwestern Gulf of Mexico.

The spawning patterns, locations and intensity varied between genera and species. For example, the eyed flounder, <u>B</u>. <u>occllatus</u>, spawned throughout most of the year, although spawning was more intense during the spring and summer. Larvae less than 3.0 mm were more frequently caught in shelf waters of intermediate depths (Figs. 58-60). In contrast, the rough scad, <u>T</u>. <u>lathami</u>, appeared to spawn only during the winter and spring, and spawning was again more concentrated in waters of intermediate depths (Figs. 63-65). The round herring, <u>E</u>. <u>teres</u>, has a shorter spawning cycle which occurred during the winter and spring over the shelf (Figs. 67-70). The croaker, <u>M</u>. <u>undulatus</u>, appears to spawn only during the summer and fall in intermediate water depths less than 45 m (Figs. 71-73). In contrast, the little tunny, <u>E</u>. <u>alletteratus</u>, spawned only during the summer and fall throughout the entire sampling area (Figs. 74-77). The seabass, <u>Diplectrum</u> sp., spawned throughout the year with a spawning peak during the summer (Figs. 78-86).

#### Comparison of ichthyoplankton data between 1975 and 1976

A comparison of fish eggs and larvae collected between 1975 and 1976 was made but because of the difference between gear type, mesh sizes and times of sampling, a direct comparison was not always possible. About the same number of larvae was collected during both years although fewer eggs were recorded in 1976. The major larval taxa for each year were similar, although more genera and species were collected in 1976 due to the greater sampling effort and better coverage of the area with the addition of the four extra Transect II stations. On a seasonal basis during Cruise 1 of each year Bregmacerotidae (codlets) was the dominant family in 1975 as compared to Myctophidae (lanternfishes) in 1976. During the fall cruise in April and May, Engraulidae (anchovies) was the dominant family during both years while during the summer cruises (August and September) Gobiidae (gobies) was the dominant family for both years.

When comparing egg and larval abundance by time, transect and station, a somewhat different pattern was noted (Table 25). For example, during the winter cruises a similar abundance pattern occurred for fish eggs during both years, but lower larval numbers were noted during 1976 as compared to 1975. The reverse pattern was recorded in the spring when more eggs and larvae were collected in 1976. During the fall cruises egg and larval abundances were similar between 1975 and 1976.

# Comparison of 1976 ichthyoplankton data between the South Texas OCS, the Buccaneer oil field and the MARMAP field studies

Only a few stations were directly comparable between the three plankton studies because of the quarterly field sampling and depth differences between the stations. When comparing the May, August and December

sampling for all three areas, some trends were noted (Table 26). For example, when egg abundances under 10 m<sup>2</sup> surface area for May and June were compared, those in the stations in the area of the Buccaneer oil field (EPA) were consistently higher than those from the BLM or adjoining MARMAP stations, although larval numbers were the highest for the BLM stations. During August, egg abundances at the BLM stations were lower than at the EPA or MARMAP stations. Larval abundance was about equal in all three sampling areas. Because only Transect II stations were sampled in December, no direct comparison was possible between BLM and the other areas.

# Comparison between trends noted in the South Texas OCS zooplankton study and the ichthyoplankton study

A comparison between selected zooplankton taxa and ichthyoplankton was made to determine if any relationship existed between the different groups of zooplankters (Table 27). In general, with the exception of Copepoda, no definite relationship was noted. Copepod abundance was often high at the same time that larval fish abundance was high. Any comparison of this type is dependent on similar sampling gear, techniques and net mesh sizes. In the zooplankton study the mesh size was 250  $\mu$ , while during our study the snallest mesh size was 333  $\mu$ . Our nets were 61 cm in diameter as compared to the 1 m zooplankton net, while our tows were double oblique as compared to a single oblique tow for the zooplankton study.

#### Comparison of salinity and temperature relationships with ichthyoplankton

The abundance, occurrence and distribution of ichthyoplankton are dependent on a number of environmental variables which directly or

indirectly influence fish stocks. In this report only the general relationships of salinity and temperature to fish taxa were explored (Table 28). Some comparison was also made with selected fish taxa in Appendix table 1. In general, no abnormal effects or trends were noted by cruise or taxa throughout 1976. The salinity and temperature levels appeared to be what would normally be present in the study area. Their effects, if any, on ichthyoplankton need to be studied under controlled laboratory conditions.

### Comparison of ichthyoplankton collected by bongo and by neuston nets

Even though neuston net tows were not taken during the same cruises as the bongo tows during 1976, an attempt to compare the ichthyoplankton from surface tows with that from the subsurface tows was made (Tables 29 and 30). These comparisons show that greater egg numbers were consistently collected with neuston nets and in some cases greater larval numbers were caught. The species composition of the larvae also was different as well as the larval sizes. For example, greater numbers of mullet (Mugilidae) and flyingfishes (Exocoetidae) were collected in neuston tows. The size ranges of the larvae from the neuston tows were generally larger than those of same taxa collected in the bongo tows (see neuston report).

#### DISCUSSION

The completion of our second year of baseline ichthyoplankton studies shows the importance of the continental shelf waters off the South Texas coast as a spawning area for fishes. Several of the larvae identified in this survey are being reported for the first time from these waters. They include the Florida pompano, Trachinotus carolinus; the bluefish, Pomatomus saltatrix; the white mullet, Mugil curema; and the tilefishes, Caulolatilus spp. Bluefin tuna larvae, Thunnus thynnus, were the first confirmed record of this species from Texas waters (Hoese and Moore, 1977). The presence of this scombrid together with larvae of Spanish mackerel, Scomberomorus maculatus, and the king mackerel, Scomberomorus cavalla, indicate that these waters are important spawning grounds for mackerels and tunas. Hopefully, when the early life histories of these and other sport and commercial fishes are completely documented, we will be able to assess the magnitude of spawning stocks of these fishes. Information of this type is badly needed for management of our fisheries within the 200-mile coastal zone in the Gulf of Mexico.

Egg and larval abundance and distribution appear to fluctuate from year to year. Generally, the main taxa collected were similar between 1975 and 1976 but individual genera and species showed great variation. Because of yearly variations in plankton populations, several years of sampling are needed to fully document significant differences throughout the study area. Patchy distribution is to be expected since eggs and early stage larvae are dependent on current and/or wind action for much of their movement. Abundance of eggs and larvae is also affected by predation from other zooplankters such as copepods and arrow worms. Availability of the right size and quantity of food is also important to larval survival. In this

study some correlation with high copepod abundance was noted. Often high numbers of larval fishes occurred when copepod numbers were also high. It is well documented that the various larval stages of copepods are one of the major sources of food for pelagic fish larvae (Blaxter, 1965).

Comparison of numbers of eggs and larvae per 1000 m<sup>3</sup> and number under 10 m<sup>2</sup> of surface area shows that the waters over the South Texas coast are higher in productivity than some areas of the eastern Gulf of Mexico (Houde and Chitty, 1976). Given sufficient data, it may be possible to obtain annual estimates of egg and larval abundance from the Texas coast. One such technique for obtaining egg abundance is given by Sette and Ahlstrom (1948).

There are other applications of ichthyoplankton surveys such as measurements of spawning stock sizes and relative changes in stocks that should be considered for future work beyond our baseline studies. This requires concentrating sampling in areas of intense spawning to provide more precise estimates of total spawned eggs and subsequent adult biomass. The mean fecundity and sex ratio of the stock must also be known. Most of this information is unavailable for the majority of species in the Gulf of Mexico.

#### CONCLUSIONS

During the two years of ichthyoplankton sampling off the South Texas coast we have partially filled a void in our knowledge of fish egg and larval identification, abundance and distribution in the northwestern Gulf of Mexico. We have also documented spawning times and places for many species of fishes.

Complex statistical analyses were not undertaken to examine the relationship among the zooplankton or the biological variables such as salinity and temperature, because at this stage our data base still needs to be expanded. There were some indications that high zooplankton abundance was associated with high larval fish numbers. There was no obvious relationship among temperature and salinity conditions and the distribution of organisms.

Our 1976 plankton data are directly comparable with the ichthyoplankton coverage of the eastern Gulf of Mexico (EGMEX) that was completed by the University of Miami from 1971-74 and our present 1977 OCS study now in progress, because the collecting gear and procedures were very similar. Our results will be useful when the possible effects of man's activities in the waters off the Texas coast are considered, especially when they are related to oil and gas exploration as well as marine transportation, dumping and commercial and recreational fisheries.

#### ACKNOWLEDGMENTS

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# DISTRIBUTION, SEASONALITY AND ABUNDANCE OF THE LARVAE OF THE KING AND SPANISH MACKERELS 1/

#### INTRODUCTION

In king and Spanish mackerels, Scomberomorus cavalla and S. maculatus, have been important fishery resources in the southeastern United States and eastern Gulf of Mexico since the latter part of the nineteenth century. King mackerel was caught commercially off Key West, Florida, as early as 1880 (E.L. Nakamura in lit.). The Spanish mackerel supported a commercial fishery off Virginia in the late nineteenth century (Powell 1975). The total recreational catch of the king mackerel for the southeastern United States and the eastern Gulf of Mexico was estimated to be 83 million pounds in 1965 (Deuel and Clark 1968) and 63 million pounds in 1970 (Deuel 1973). Commercial landings of the king mackerel were about 7 million pounds in 1970 (Wheeland 1973). Commercial value of the Florida landings of the king mackerel have increased from \$600,000 in 1965 to over \$1,000,000 in 1970 (Beaumariage 1973).

Sport fishermen caught about 23 million pounds of Spanish mackerel in 1970 (Deuel 1973). The average annual commercial landings of the Spanish mackerel since the mid-nineteenth century have been about 8 million pounds (Lyles 1969). From 1968 through 1972 the dockside values of commercial landings have exceeded \$1,000,000 each year (Powell 1975).

At the present time there is no commercial fishery for either the king or the Spanish mackerel in Texas, although Trent (1976) reported that these two species are among the five most frequently captured sport fishes off South Texas.

 $<sup>\</sup>underline{1}/$  All tables and figures discussed in the mackerel section of this report are found in Appendix B.

Most of the studies of the king and Spanish mackerel in U.S. waters have been limited to Florida and the East Coast (Earll 1882, Ryder 1882, Hildebrand and Cable 1938, Klima 1959, Moe 1963, Wollam 1970, Dwinell and Futch 1973, Beaumariage 1969, 1973, Powell 1975). Mackerel larvae have been reported from off the Texas coast (Pew 1958, Hoese 1965, Wollam 1970) but there have been only two accounts of the distribution, seasonality and abundance of the larvae in this area (Finucane 1976, McEachran 1976).

One of the more important aspects of the life history of fishes for management purposes is the recruitment rate of young individuals into the fishery (Sette and Ahlstrom 1948). Recruitment rate is dependent upon the magnitude of spawning and survival rate of the eggs and larvae. It is also possible to estimate the adult biomass from the abundance of the eggs and larvae (Ahlstrom 1968). This method is especially useful for pelagic schooling fishes like the king and Spanish mackerels, because eggs and especially larvae with feeble means of locomotion, over a limited area, tend to be more randomly distributed than the juvenile and adult fishes.

The objective of the present study is to determine the distribution, seasonal occurrence and abundance of larvae of the king and Spanish mackerels in order to estimate the importance of the northwestern Gulf of Mexico as a spawning and nursery ground for these species.

## METHODS AND MATERIAL

Larvae of the king and Spanish mackerels were sorted from plankton samples obtained with bongo nets. The samples were collected on the Baseline Survey of the Ichthyoplankton of the South Texas Outer Continental Shelf, which was sponsored by the Bureau of Land Management. Samples obtained by both the 333 and 505 µ bongo nets were sorted for each of the stations from all 9 cruises of 1976. All specimens were counted and measured to the nearest 0.01 mm of standard length (SL). Numerous scombrid eggs were encountered in the samples but none could be positively identified as Scomberomorus eggs. Identification of Scomberomorus eggs must await spawning by captive king and Spanish mackerels, in order that the origin of the eggs is positively known.

The abundance of larvae of each species at each station was reported as the number of larvae under 10 m<sup>2</sup> of sea surface. These data were compared with those collected during the 1975 OCS Baseline Study of the Ichthyoplankton of South Texas (Finucane 1976) and a special larval mackerel study of a section of the above area in 1975 (McEachran 1976). Quantitative comparisons between the 1975 and 1976 Baseline Studies were not possible, because a meter net was used on the former study while paired bongo nets (61 cm diameter) were used on the latter study, and mesh sizes of the two types of gear were not the same. Paired Student's t test was used to determine if number of larvae caught by the 333 and 505  $\mu$  mesh bongo nets differed significantly and if the number of larvae that were caught during day tows differed significantly from those caught during night tows within each station for the 1975 Baseline Study.

A paired Student's t test revealed that significantly more larvae were captured by the bongo net with the 333  $\mu$  mesh net than with the 505  $\mu$  mesh net (P  $\leq$  0.05). However, there were no significant differences between lengths of larvae captured by the two types of gear (Fig. 138).

Mean size of the larvae did not progressively increase from June through September. Means for the four cruises were 3.3, 3.3, 3.7 and 3.3 mm (Fig. 139). Also there were no significant differences in lengths of larvae among the inshore, intermediate and offshore stations. Small to large larvae (1.8-9.7 mm SL) were found at stations of all depths (Table 31, Figs. 130-137).

During the 1975 Baseline Survey, 170 king mackerel were captured during two of the three seasonal cruises (April to May and August to September) (J. Finucane in lit.). In the 1976 Baseline Survey, the majority of the larvae were captured in August and September; the outer two stations of each transect had a greater abundance of larvae than the shoal stations (Table 33). Higher abundance of larvae was recorded for Transects III and IV than for Transects I and II. In the 1975 Baseline Survey each station was sampled twice per cruise, once during daylight and once during night. A paired Student's t test revealed that significantly more larvae were captured during the night than during the day ( $P \le 0.05$ ). There were no significant differences between mean lengths of larvae captured during the day or night or among larvae captured at stations of different depths (Figs. 140-143).

The data collected on the special larval mackerel study of 1975 also are comparable to those of the Baseline Surveys (Table 34). Greatest abundance of larvae occurred during the September cruise and the stations of intermediate depths (32-65 m) had the highest concentrations of larvae

larvae (McEachran 1976). Likewise there was no modal increase in larval size during the five months of the survey (May-September).

#### RESULTS

King Mackerel

King mackerel, Scomberomorus cavalla, larvae were collected from June through September during four of the nine cruises (Table 31). A total of 358 larvae was captured by the paired bongo nets with over onehalf being captured on the September cruise (Cruise VII). Abundance of larvae (number of larvae under 10 m<sup>2</sup> sea surface) along Transect II, the only transect that was surveyed during all of the four cruises, progressively increased from June (Cruise IV) through September (Cruise VII) except that it was slightly lower in July (Cruise V) than in June (Table 32). The greatest abundance of larvae, on all four cruises, occurred at the stations of intermediate depths (40-100 m), lesser abundance occurred at the stations of greatest depths (106-183 m) and the lowest abundance was found at the shoalest stations (18-34 m) Table 32 (Figs. 130-137). During the June cruise greater abundance of larvae occurred along Transects I and II, lower abundance along Transects III and IV, and the lowest abundance along Transect IV (Figs. 130-131). However, during the September cruise, greater abundance was recorded along Transects II and III than along the other two transects, while the lowest abundance was recorded for Transect I (Figs. 136-137).

Mean temperature and salinity of the water column in which larvae were captured ranged from 22.4 to 29.2°C and 30.4 to 37.4°/oo, respectively (Table 31). However, temperature and salinity data were, on some occasions, collected on cruises that were several weeks from the cruises during which the larvae were collected; thus it was not possible to

directly correlate the distribution of larvae with temperature and/or salinity.

# Spanish Mackerel

Spanish mackerel, <u>Scomberomorus maculatus</u>, larvae were collected from June through September during four of the nine cruises (Table 35). A total of 45 larvae was captured; more were caught on the September cruise than any other. Spanish mackerel larvae were most abundant at the shoalest stations (18-34 m) (Table 36, Figs. 144-151).

Mean temperature and salinity of the water column in which larvae were captured ranged from 23.8 to 29.2°C and 30.4 to 37.4°/oo respectively (Table 35). As previously stated, these data were not necessarily collected on cruises during which larvae were collected.

More of the larvae were captured in the 333  $\mu$  mesh net than in the 505  $\mu$  net, although there were no significant differences between lengths of larvae captured by the two types of gear (Fig. 152). Mean size of the larvae did not significantly increase from June through September (Fig. 153). The means for the four months were 2.9, 2.8, 3.6 and 3.8 mm SL respectively. Small or large larvae were not limited to specific depths (Table 35, Figs. 144-151).

A total of 99 Spanish mackerel larvae was captured during the 1975

Baseline Survey on the April-May and August-September cruises (J. Finucane in lit.). All but one of the larvae were taken on the August-September cruise, and the greatest abundances of these were captured at the shoalest stations (18-27 m) (Table 36). Unlike the king mackerel larvae, more Spanish mackerel larvae were captured during the day than during the night. There were no significant differences between mean lengths of larvae captured during the day or night (Figs. 140-143).

Spanish mackerel were relatively less abundant in the special larval mackerel study of 1975 than in the 1975 Baseline Survey (Tables 37, 38). The greatest abundance was recorded at the shoalest stations (12-14 m).

## DISCUSSION

# King Mackerel

As indicated by the special larval mackerel study (McEachran 1976) and the 1975 Baseline Survey (Finucane 1976), the northwestern Gulf of Mexico is a major spawning site for king mackerel. Spawning extends from at least June through September. Data collected by the above studies indicate that spawning commences in May. The high concentrations of larvae in September suggest that spawning may continue into October. Unfortunately, during 1975 and 1976 no sampling effort was expended during October. The fact that no larvae were captured during the November cruise indicates that spawning ceases prior to this time.

The data also suggest that spawning intensity shifts from the central to the southwestern coast of Texas during the summer. During both years of the Baseline Survey, larvae became increasingly more abundant along the more westward transects as the spawning season progressed.

As suggested by McEachran (1976) the king mackerel has a protracted spawning season. Mean length of larvae did not increase during either year of the survey. Larvae less than 2.8 mm which are considered by Dwinell and Futch (1973) to be not older than three days were found during all monthly cruises during both 1975 and 1976. However, spawning becomes more intense during August and September.

The 1976 Baseline Survey also supports the statement of McEachran (1976) that most spawning occurs over the deeper waters of the continental

shelf. The greatest concentration of larvae occurred at stations 40-100 m in depth. Several larvae 1.8 to 2.1 mm SL were captured at the shoalest stations but only along Transects III and IV which are located over the narrowest part of the continental shelf. Thus, it is possible that these larvae were spawned in deeper water and were brought inshore by water currents.

It is difficult to explain why more larvae were captured by the 333  $\mu$  net than by the 505  $\mu$  net, because there were no significant differences in the mean size of the larvae captured by the two nets. If the smaller larvae were washed through the larger meshed net (505  $\mu$ ) then there should have been a significant difference between the sizes of the larvae captured by the two gear. Also extrusion of larvae would be greater in the smaller meshed net (333  $\mu$ ); thus if extrusion was significant the 333  $\mu$  net should have caught less and not more larvae.

The significantly greater abundance of king mackerel larvae in night tows than in day tows may be explained by escapement. The large-eyed, quick swimming larvae are probably better able to avoid the sampling gear during the day. Larger larvae were collected in the 1975 Baseline Survey and in Dwinell and Futch's (1973) study in which a meter net was employed than in the special larval mackerel study and in the 1976 Survey in which 61 cm bongo nets were used. The larger larvae are probably more adept at avoiding a net of smaller diameter.

# Spanish Mackerel

Spanish mackerel were relatively scarce in the 1976 Baseline Survey as they were in the special larval mackerel study (McEachran 1976).

However, the 1975 Baseline Survey indicated that large concentrations of

Spanish mackerel larvae exist in the northwestern Gulf of Mexico (Finucane 1976). Perhaps the major spawning site of the Spanish mackerel was not surveyed or that Spanish mackerel spawn more sporadically than king mackerel in the northwestern Gulf. The Spanish mackerel spawn very close to shore (Dwinell and Futch 1975), and as indicated by McEachran (1976) this area was under-sampled in both the baseline and special larval mackerel surveys.

Spanish mackerel may cease spawning earlier than the king mackerel. The mean lengths of larvae captured in September on both the special cruise (5.0 mm SL) and the 1976 Baseline Survey (3.8 mm SL) were greater than mean lengths of larvae captured on earlier cruises of these surveys. However, mean lengths of larvae captured on the 1975 Baseline Survey in September were not greater than those measured for larvae on the former two surveys for earlier months.

Unlike the king mackerel, the Spanish mackerel larvae were more abundant in day than in night samples within stations on Baseline Survey of 1975. Possibly the Spanish mackerel have a different diel pattern than the king mackerel and are thus less available to the sampling gear during the night.

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APPENDIX A

(Ichthyoplankton)

Table 1. 1976 BLM station locations and depths for Texas outer continental shelf study.

Transect	Station	Latitude (N)	Longitude (W)	Depth (m)
I	1	28°12'	96°27'	18
	2	27°55'	96°20'	42
	3	27°34'	96°07 <b>'</b>	134
II	1	27°40'	96°59'	22
	4	27°34'	96°50'	34
	2	27°30'	96°45 <b>'</b>	49
	5	27°24'	96°36'	78
	6	27°24'	96°29'	. 98
	3	27°18'	96°23'	131
	7	27°15'	96 <b>°</b> 19 <b>'</b>	182
III	ı	26°58'	97°11'	25
	2	26°58'	96°48'	65
	3 :	26°58'	96°33'	106
IV	1	26°10'	97°01'	27
	2	26°10'	96°39'	47
	3	26°10'	96°24'	91

Table 2. Displacement volumes in milliliters for plankton collected during 1976 OCS ichthyoplankton monitoring study.

Cruise	Transect- station	Mesh size (μ)	Date (1976)	Time (CST)	Displacement vol.
1	I-l	505 333	2/3 2/3	1043	2.8 6.0
	I <b>-</b> 2	505 333	2/2 2/2	2354	6.7 10.8
	I-3	505 333	2/3 2/3	1930	23.6 39.6
	II-1	505 333	2/2 2/2	1850	4.9 5.8
	II-2	505 333	2/2 2/2	1345	34·7 24.8
	II-3	505 333	2/2 2/2	2052	38.7 35.6
	II-4	505 333	2/2 2/2	1553	6.4 11.0
	II-5	505 <b>33</b> 3	2/2 2/2	1035	22.4 20.9
	II-6	505 333	2/2 2/2	0852	45.0 46.3
	II <b>-</b> 7	505 333	2/1 2/1	2218	45.2 46.4
	III-1	505 333	1/31 1/31	1044	4.9 6.5
	III-2	505 333	2/1 2/1	1017	18.8 21.4
	III-3	505 333	2/1 2/1	1357	44.7 59.3
	IV-1	505 333	1/30 1/30	1756	5.3 14.6
	I <b>V-</b> 2	505 333	1/14 1/14	0110	4.7 5.0
	IV-3	505 333	1/30 1/30	1113	40.4 36.7

Table 2. (Continued)

Cruise	Transect- station	Mesh size (µ)	Date (1976)	Time (CST)	Displacement vol.
2	II-l	505 333	3/18 3/18	1618	3.0 6.5
	II-2	505 333	3/19 3/19	0935	17.0 18.2
	II <b>-</b> 3	505 333	3/19 3/19	1758	18.9 17.5
	II <b>-</b> 4	505 333	3/18 3/18	1721	7.9 3.8
	II-5	505 333	3/19 3/19	1100	13.0 14.0
	11-6	505 333	3/19 3/19	1300	13.4 12.0
	II <b>-</b> 7	505 333	3/19 3/19	1710	19.9 22.5
3	II-1	505 333	4/2 4/2	1305	16.9 22.1
	II-2	505 333	4/2 4/2	1958	10.4 22.2
	II-3	505 333	4/3 4/3	1818	12.7 18.4
	11-4	505 333	4/2 4/2	1703	8.4 9.2
	II-5	505 333	4/3 4/3	1053	9.9 6.8
	II <b>-</b> 6	505 333	4/3 4/3	1949	24.9 33.3
-	II-7	505 333	4/3 4/3	1328	21.5 27.2
4	I-1	505 333	6/7 6/7	2030	24.2 28.4
	I <b>-</b> 2	505 333	6/7 6/7	1452	55.9 48.6

Table 2. (Continued)

Cruise	Transect- station	Mesh size (µ)	Date (1976)	Time (CST)	Displacement vol.
14	I <b>-</b> 3	505 333	6/6 6/6	2240	11.0 15.0
	11-1	505 333	6/3 6/3	1211	13.9 19.5
	II <b>-</b> 2	50 <sup>5</sup> 333	6/4 6/4	2342	44.3 60.3
	II-3	505 333	6/5 6/5	2114	30.0 31.7
	II-4	505 333	6/4 6/4	2309	32.6 43.0
	II-5	505 333	6/5 6/5	1334	25.5 33.4
	II <b>-</b> 6	505 333	6/6 6/6	1232	18.5 17.6
	II-7	505 333	6/5 6/5	2020	23.3 30.3
	III-1	505 333	6/3 6/3	1855	47.5 33.4
	III-2	505 333	6/4 6/4	0932	41.0 34.3
	III-3	505 333	6/5 6/5	1612	25 <b>.</b> 9 28 <b>.</b> 8
	IV-1	505 333	5/30 5/30	1027	10.1 16.3
	IV2	505 333	5/30 5/30	0020	17.2 24.6
	IV-3	505 333	5/30 5/30	1958	17.3 23.1
5	II-1	505 333	7/10 7/10	1310	7.5 14.4
	II-2	505 333	7/10 7/10	1830	14.5 28.8

Table 2. (Continued)

Cruise	Transect- station	Mesh size (μ)	Date (1976)	Time (CST)	Displacement vol.	
5	II <b>-</b> 3	505 333	7/11 7/11	1330	11.7 15.5	
	11-4	505 333	7/10 7/10	1545	3.9 7.1	
	II-5	505 333	7/10 7/10	2210	11.9 18.2	
	11-6	505 333	7/11 7/11	1010	10.2 11.3	
<u></u>	II-7	505 333	7/11 7/11	1230	14.8 18.5	
6	II-1	505 333	8/28 8/28	1625	2.3 5.0	
	II <b>-</b> 2	505 333	8/28 8/28	1300	12.6 18.7	
	II <b>-</b> 3	505 333	8/27 8/27	1915	19.9 21.3	
	II-4	505 333	8/28 8/28	1514	9.5 12.7	
	II-5	505 333	8/28 8/28	1155	5.5 7.3	
	11-6	505 333	8/28 8/28	0950	16.1 23.4	
	II <b>-</b> 7	505 333	8/27 8/27	2143	31.8 39.7	
7	I-1	505 333	9/15 9/15	2125	20.0 32.4	
	I <b>-</b> 2	505 333	9/15 9/15	1752	15.8 19.0	
	I <b>-</b> 3	505 333	9/15 9/15	1025	9.8 11.0	

Table 2. (Continued)

Cruise	Transect- station	Mesh size (μ)	Date (1976)	Time (CST)	Displacement vol.
7	II-1	505 333	9/10 9/10	1700	4.0 7.1
	1 <b>1-</b> 2	505 333	9/14 9/14	1743	7.7 8.1
	II-3	505 333	9/13 9/13	2212	25.9 30.7
,	II-4	505 333	9/10 9/10	2020	13.7 23.4
	II-5	505 333	9/14 9/14	1400	19.0 22.5
	II <b>-</b> 6	505 333	9/14 9/14	1043	15.8 22.1
	11-7	505 333	9/13 9/13	2035	31.4 28.6
	III-1	505 333	9/12 9/12	1827	5.5 25.8
	III-2	505 333	9/13 9/13	1019	14.8 16.8
	III-3	505 333	9/13 9/13	1550	10.5 17.5
	ĮV–1	505 333	9/12 9/12	0910	3.6 4.5
,	I <b>V-</b> 2	505 333	9/11 9/11	1715	6.4 7.8
	IV-3	505 333	9/11 9/11	1110	10.0 9.6
8	II-1	505 333	11/10 11/10	0940	11.8 25.2
	II-2	505 333	11/9 11/9	1850	35.5 35.5
	II-3	505 333	11/9 11/9	1235	19.2 26.9

Table 2. (Continued)

Cruise	Transect- station	Mesh size (μ)	Date (1976)	Time (CST)	Displacement vol.
8	II-14	505 333	11/10 11/10	0830	12.4 30.6
	II-5	505 333	11/9 11/9	1758	19.1 33.1
	II <b>-</b> 6	505 333	11/9 11/9	1001	15.4 17.9
	II <b>-</b> 7	505 333	11/9 11/9	1115	21.1 29.5
9	II-l	505 333	12/1 12/1	1205	2.3 4.1
	II <b>-</b> 2	505 333	12/2 12/2	1730	17.2 29.8
	II-3	505 333	12/2 12/2	1210	12.6 16.5
	II-4	505 333	12/1 12/1	1405	4.9 10.1
	II-5	505 333	12/2 12/2	1430	1.2 6.6
	II <b>-</b> 6	505 333	12/1 12/1	1720	16.9 22.6
	II <b>-7</b>	505 333	12/2 12/2	0840	21.8 32.1

Table 3. BLM ichthyoplankton data for Cruise 1 from January 14, 1976, to February 2, 1976, by transect, station and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect and station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
I-1	505 333	2/3 2/3	1043	77.3 80.6	16 9	207 112	6	78 186
I-2	505 333	2/2 2/2	2354	118.1 115.2	151 177	1,279 1,536	117 127	991 1 <b>,</b> 102
I-3	505 333	2/3 2/3	1930	357.3 276.8	176 199	493 719	42 76	118 275
II-1	505 333	2/2 2/2	1850	91.8 100.6	86 59	937 587	5 1	54 10
II-2	505 333	2/2 2/2	1345	236.1 156.4	349 305	1,478 1,950	331 516	1,402 3,299
II-3	505 333	2/2 2/2	2052	479.1 472.6	790 809	1,647 1,712	138 137	288 290
II-4	505 333	2/2 2/2	1553	43.0 46.3	98 90	2,279 1,944	21 43	488 929
II-5	505 333	2/2 2/2	1035	177.0 180.7	318 315	1,797 1,743	80 131	452 725
II-6	505 333	2/2 2/2	0852	387.5 389.1	290 262	748 .673	151 196	390 504

<u>-</u>

Table 3. (Continued).

Transect and station	Mesh (µ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II-7	505 333	2/1 2/1	2218	527.8 468.1	501 474	949 1 <b>,</b> 013	190 235	360 502
III-1	505 333	1/31 1/31	1044	104.2 110.5	42 29	403 262	8 10	77 90
III-2	505 333	2/1 2/1	1017	161.7 164.8	230 248	1,422 1,505	49 49	303 297
III-3	505 333	2/1 2/1	1357	379.5 474.1	411 379	1,083 799	113 148	298 312
IV-1	505 333	1/30 1/30	1756	70.0 74.6	39 44	557 590	15 8	214 107
IV-2	505 333	1/14 1/14	0110	92.9 115.9	117 114	1,259 984	132 152	1,421 1,312
IV-3	505 333	1/30 1/30	1113	354.2 347.6	383 288	1,081 829	129 100	364 288

Table 4. BLM ichthyoplankton data for Cruise 2, transect II from March 18-19, 1976, by transect, station, and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect station	Mesh (µ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II-1	505 333	3/18 3/18	1618	70.3 117.2	356 364	5,064 3,106	44 80	6 · 683
II <b>-</b> 2	505 333	3/19 3/19	0935	161.7 168.0	1,833 1,821	11,336 10,839	5 <sub>7</sub> 19	1,552 1,482
II <b>-</b> 3	505 333	3/19 3/19	1758	373.1 384.9	379 399	1,016 1,037	547 822	1,466 2,136
II-4	505 333	3/18 3/18	1721	123.1 124.5	341 88	2,770 707	57 40	463 321
II-5	505 333	3/19 3/19	1100	217.1 223.6	510 582	2,349 2,603	288 346	1,327 1,547
II <b>-</b> 6	505 333	3/19 3/19	1300	282.2 294.6	344 329	1,219 1,117	289 366	1,024 1,242
II <b>-</b> 7	505 333	3/19 3/19	1710	443.5 482.7	285 307	643 636	477 529	1,075 1,095

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Table 5. BLM ichthyoplankton data for Cruise 3, transect II from April 2-3, 1976, by transect, station, and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II-1	505 333	4/2 4/2	1305	71.5 65.6	190 222	2,657 3,384	39 54	546 823
II-2	505 333	4/2 4/2	1958	189.3 189.3	1,010 988	5,335 5,219	390 549	2,060 2,900
II <b>-</b> 3	505 333	4/3 4/3	1818	332.8 319.1	277 262	832 821	417 565	1,253 1,771
II <b>-</b> 4	505 333	4/2 4/2	1703	101.5 95.3	521 545	5,133 5,719	85 206	837 2,162
II-5	505 333	4/3 4/3	1053	208.6 198.6	258 197	1 <b>,</b> 237 992	676 307	3,241 1,546
II <b>-</b> 6	505 333	4/3 4/3	1949	285.1 276.6	181 213	635 770	635 828	2,227 2,994
II <b>-</b> 7	505 333	4/3 4/3	1328	562.8 546.5	155 197	275 360	539 837	958 1,532

Table 6. BLM ichthyoplankton data for Cruise 4 from May 30, 1976 to June 7, 1976, by transect, station, and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect and station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
I-1	505 333	6/7 6/7	2030	78.5 81.4	135 225	1,720 2,764	136 197	1,732 2,420
I <b>-</b> 2	505 333	6/7 6/7	1452	117.7 114.0	313 266	2,659 2,333	408 805	3,466 7,061
I-3	505 333	6/6 6/6	2240	241.2 234.8	53 50	220 213	209 482	866 2 <b>,</b> 053
II-l	505 333	6/3 6/3	1211	81.7 82.3	158 176	1,934 2,138	40 82	490 996
II-2	505 333	6/4 6/4	2342	159.1 155.0	394 568	2,476 3,664	781 1,004	4,909 6,477
II-3	505 333	6/5 6/5	2114	302.3 297.5	37 401	122 2 <b>,</b> 587	449 446	1,485 3,084
II-4	505 333	6/4 6/4	2309	77.6 84.1	540 630	6,959 7,492	376 464	4,845 5,731
II-5	505 333	6/5 6/5	1334	212.2 208.7	88 80	415 383	273 413	1,286 2,012
11-6	505 333	6/6 6/6	1232	226.9 225.2	108 104	476 462	206 256	908 1 <b>,</b> 137

Table 6. (Continued).

Transect and station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II <b>-</b> 7	505 333	6/5 6/5	2020	926.1 832.9	40 27	43 32	464 483	501 580
III-1	505 333	6/3 6/3	1855	94.1 95.1	183 281	1,945 2,955	96 111	1,020 1,167
III-2	505 333	6/4 6/4	0932	174.1 169.1	286 295	1,643 1,744	271 365	1,557 2,158
III-3	505 333	6/5 6/5	1612	318.1 310.2	100 101	314 326	187 382	588 1,054
IV-1	505 333	5/30 5/30	1027	73.0 83.4	272 456	3,726 5,468	38 25	520 300
IV-2	505 333	5/30 5/30	0020	186.4 188.1	131 122	703 649	360 386	1,931 2,052
IV-3	505 333	5/30 5/30	1958	324.1 337.8	110 94	339 278	414 297	1,277 879

Table 7. BLM ichthyoplankton data for Cruise 5, transect II from July 10-11, 1976, by transect, station, and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect and station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II-1	505 333	7/10 7/10	1310	80.7 79.4	60 31	384 756	114 241	1,413 3,035
II-2"	505 333	7/10 7/10	1830	271.0 257.2	360 360	1,328 1,400	460 1,174	1,697 4,564
II-3	505 333	7/11 7/11	1330	416.9 391.2	52 72	125 184	911 1,467	2,185 3,750
II-4	505 333	7/10 7/10	1545	84.3 79.5	67 1,176	795 14 <b>,</b> 792	113 305	1,340 3,836
II <b>-</b> 5	505 333	7/10 7/10	2210	265.5 255.6	334 177	1,258 692	121 177	456 692
II <b>-</b> 6	505 333	7/11 7/11	1010	269.4 255.6	111 111	412 434	418 615	1,552 2,406
II <b>-7</b>	505 333	7/11 7/11	1230	467.1 441.7	87 75	186 170	140 219	300 496

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Table 8. BLM ichthyoplankton data for Cruise 6 from August 27-28, 1976, by transect, station, and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect station	Mesh (µ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II-1	505 333	8/28 8/28	1625	66.1 61.3	13 25	197 408	149 323	2,254 5,269
II-2	505 333	8/28 8/28	1300	174.2 155.8	457 434	2,623 2,786	327 675	1,877 4,332
II-3	505 333	8/27 8/27	1915	414.3 289.6	113 58	273 200	1,261 1,426	4,924 4,924
II-4	505 333	8/28 8/28	1514	113.8 102.8	326 186	2,865 1,809	223 923	1,960 8,979
II-5	505 333	8/28 8/28	1155	226.0 212.2	196 286	867 1,348	168 210	743 990
II <b>-</b> 6	505 333	8/28 8/28	0950	304.2 272.1	206 1 <b>,</b> 265	877 4,649	916 1 <b>,</b> 872	3,011 6,880
II-7	505 333	8/27 8/27	2143	486.7 420.5	72 57	148 136	1,409 1,508	2,895 3,586

Table 9. BLM ichthyoplankton data for Cruise 7 from September 10-15, 1976, by transect, station and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
I-1	505 333	9/15 9/15	2125	86.0 78.6	194 291	2,256 3,702	306 410	3,558 5,216
I <b>-</b> 2	505 333	9/15 9/15	1752	180.6 167.6	18 15	100 89	624 915	3,455 5, <sup>1</sup> 159
I <b>-</b> 3	505 333	9/15 9/15	1025	474.3 465.5	160 139	337 299	161 182	339 391
II-1	505 333	9/10 9/10	1700	97.1 94.9	37 127	381 1,338	217 254	2,235 2,677
II <b>-</b> 2	505 333	9/14 9/14	1743	107.1 99.9	29 16	271 160	118 133	1,102 1,331
II-3	505 333	9/13 9/13	2212	333.3 297.4	101 63	303 212	953 924	2,859 3,107
II-4	505 333	9/10 9/10	2020	195.5 183.8	56 64	286 348	92 224	471 1 <b>,</b> 219
II-5	505 333	9/14 9/14	1400	298.9 249.6	52 45	174 180	539 489	1,803 1,959
II <b>-</b> 6	505 333	9/14 9/14	1043	313.7 273.3	51 105	163 384	656 745	2,091 2,726

Table 9. (Continued).

Transect station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II-7	505 333	9/13 9/13	2035	471.3 417.9	55 51	117 122	1,394 1,537	2,958 3,678
III-l	505 333	9/12 9/12	1827	137.2 133.6	61 131	445 981	928 1,483	6,764 11,100
III-2	505 333	9/13 9/13	1019	179.5 163.1	255 235	1,421 1,441	464 697	2,585 4,273
III-3	505 333	9/13 9/13	1550	255.6 230.3	137 37	536 161	489 528	1,913 2,293
IV-1	505 333	9/12 9/12	0910	103.2 98.3	191 573	1,851 5,829	43 30	417 305
IV-2	505 333	9/11 9/11	1715	143.8 133.0	13 14	90 105	132 172	918 1 <b>,</b> 293
IV-3	505 333	9/11 9/11	1110	324.7 307.6	143 118	440 384	677 685	2,085 2,227

Table 10. BLM ichthyoplankton data for Cruise 8 from November 9-10, 1976, by transect, station, and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect station	Mesh (μ)	Date 1976	Time (CST)	Water filtered per m <sup>3</sup>	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m3
II-1	505 333	11/10 11/10	0940	80.6 72.6	14 13	174 179	87 120	1,079 1,653
II-2	505 333	11/9 11/9	1850	136.3 127.5	42 36	308 282	892 1,274	6,544 10,000
II-3	505 333	11/9 11/9	1235	312.3 284.8	37 31	119 109	1,043 1,096	3,340 3,848
II-4	505 333	11/10 11/10	0830	97.9 91.4	67 91	684 996	280 594	2,860 6,4 <b>99</b>
II-5	505 333	11/9 11/9	1758	250.5 272.8	16 15	64 55	429 <b>7</b> 30	1,713 2,676
II <b>-</b> 6	505 333	11/9 11/9	1001	282.9 265.1	34 29	120 109	607 724	2,146 2,731
II-7	505 333	11/9 11/9	1115	490.3 454.9	46 52	94 114	795 1,047	1,621 2,302

Table 11. BLM ichthyoplankton data for Cruise 9 from December 1-2, 1976, by transect, station, and time for 333  $\mu$  and 505  $\mu$  plankton samples.

Transect station	Mesh (µ)	Date 1976	Time (CST)	Water filtered per m3	Total number eggs	Number eggs per 1,000 m <sup>3</sup>	Total number larvae	Number larvae per 1,000 m <sup>3</sup>
II-1	505 333	12/1 12/1	1205	76.6 73.1	114 109	1,488 1,491	52 87	679 1 <b>,</b> 190
II-2	505 333	12/2 12/2	1730	136.8 129.0	175 145	1,279 1,124	481 481	3,516 3,729
II-3	505 333	12/2 12/2	1210	347.6 329.2	140 111	403 337	568 604	1,634 1,835
II-4	505 333	12/1 12/1	1405	93.7 89.8	51 55	544 613	161 168	1,718 187
II-5	505 333	12/2 12/2	1430	218.3 206.1	18 30	83 146	18 143	82 694
II <b>-</b> 6	505 333	12/1 12/1	1720	327.5 308.4	54 52	165 169	606 532	1,850 1,725
II <b>-</b> 7	505 333	12/2 12/2	0840	589.3 559.4	178 158	302 282	690 871	1,171 1,557

Table 12. Ten most abundant larval families by sampling cruises in 1976 for 505μ and 333μ plankton samples expressed in No./1,000 m<sup>3</sup>.

Cruis (January-F		Cruise (March		Cruise 3 (April)		
Family	No./1,000 m3	Family	No./1,000 m <sup>3</sup>	Family	No./1,000 m <sup>3</sup>	
Myctophidae	83	Clupeidae	318	Clupeidae	431	
Bregmacerotidae	81	Bregmacerotidae	291	Gobiidae	225	
Clupeidae	67	Myctophidae	185	Synodontidae	201	
Gobiidae	50	Gobiidae	76	Bregmacerotidae	165	
Carangidae	39	Gonostomatidae	61	Myctophidae	155	
Gonostomatidae	25	Synodontidae	45	Serranidae	110	
Serranidae	13	Serranidae	30	Carangidae	100	
Stromateidae	12	Carangidae	29	Triglidae	38	
Bothidae	11	Engraulidae	24	Mugilidae	33	
Synodontidae	10	Triglidae	19	Cynoglossidae	29	
42 families 43 genera 25 species (3,471 larvae)		29 families 38 genera 21 species (4,385 larvae)		34 families 44 genera 21 species (6,128 larvae)		

Table 12. (Continued)

Cruise (May-Ju		Cruise 5 (July)		Cruise (Augus	
Family	No./1,000 m <sup>3</sup>	Family	No./1,000 m <sup>3</sup>	Family	No./1,000 m <sup>3</sup>
Engraulidae	308	Engraulidae	627	Engraulidae	856
Bregmacerotidae	207	Bregmacerotidae	229	Gobiidae	669
Gobiidae	161	Bothidae	202	Bothidae	496
Bothidae	128	Gobiidae	149	Synodontidae	197
Microdesmidae	112	Myctophidae	134	Bregmacerotidae	186
Myctophidae	112	Synodontidae	92	Clupeidae	120
Carangidae	83	Gonostomatidae	51	Scombridae	99
Scombridae	68	Scombridae	47	Cynoglossidae	91
Serranidae	58	Microdesmidae	30	Microdesmidae	76
Synodontidae	38	Carangidae	30	Ophichthidae	64
48 families 63 genera 35 species (10,852 larvae)		40 families 57 genera 28 species (6,475 larvae)		36 families 46 genera 22 species (11,390 larvae)	

Table 12. (Continued)

Cruise 7* (September)		Cruise (Novemb		Cruise (Decemb	-	All cruises	
Family	No./1,000 m <sup>3</sup>		No./1,000 m <sup>3</sup>		No./1,000 m <sup>3</sup>	Family	$No./1,000 m^3$
Gobiidae	480	Gobiidae	1,571	Gobiidae	414	Gobiidae	362
Engraulidae	396	Bregmacerotidae	385	Mugilidae	281	Engraulidae	245
Bregmacerotidae	e 360	Sci <b>ae</b> nidae	274	Sciaenidae	210	Bregmacerotidae	223
Bothidae	335	Bothidae -	134	Bregmacerotidae	e 141	Bothidae	152
Cynoglossidae	112	Congridae	51	Clupeidae	64	Clupeidae	97
Myctophidae	88	Cynoglossidae	50	Stromateidae	58	Myctophidae	94
Synodontidae	69	Ophidiidae	31	Bothidae	41	Synodontidae	65
Scombridae	66	Clupeidae	_ 27	Myctophidae	35	Sciaenidae	52
Carangidae	54	Synodontidae	25	Gonostomatidae	31	Carangidae	48
Sciaenidae	46	Moringuidae	23	Congridae	27	Microdesmidae	35
45 families 59 genera 34 species (17,201 larvae)	)	38 families 44 genera 25 species (9,718 larvae)		31 families 47 genera 24 species (5,462 larvae)		71 families 108 genera 71 species (75,082 larvae)	

<sup>\*</sup>Seasonal cruises covering all transects.

Table 13. Fish larvae from Cruise 1 showing family, genera, and species (January 14 - February 3, 1976).

Family	Genus	Species
ANTENNARIIDAE (frogfishes)		
ARGENTINIDAE (argentines)		<b></b>
BATHYLAGIDAE (deepsea smelts)	Bathylagus	sp.
BLENNIIDAE (combtooth blennies)		
BOTHIDAE (lefteye flounders)	Bothus Paralichthys	ocellatus sp.
BRANCHIOSTEGIDAE (tilefishes)	Caulolatilus	sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CARANGIDAE (jacks and pompanos)	Trachurus	lathami 
CHAULIODONTIDAE (viperfishes)	Chauliodus	sp.
CHIASMODONTIDAE		
CLUPEIDAE (herrings)	Brevoortia Etrumeus	patronus teres
CONGRIDAE (conger eels)		
CYNOGLOSSIDAE (tonguefishes)	Symphurus Symphurus	piger sp.
ENGRAULIDAE (anchovies)		
GADIDAE (codfishes)	Urophycis	sp.
GEMPYLIDAE (snake mackerels)	<b></b>	

Table 13. (Continued)

Family	Genus	Species
GOBIIDAE (gobies)		
GONOSTOMATIDAE (lightfishes)	Cyclothone Gonostomus Gonostomus Maurolicus Vinciguerria	sp. atlanticum elongatum sp. sp.
KYPHOSIDAE (sea chubs)	Kyphosus	sp.
LUTJANIDAE (snappers)		. <del></del>
MELANOSTOMIATIDAE (scaleless dragonfishes)		<del></del> .
MORIDAE	<del></del>	
MORINGUIDAE (spaghetti eels)	Neoconger	mucronatus
MUGILIDAE (mullets)	Mugil Mugil	cephalus sp.
MYCTOPHIDAE (lanternfishes)	Benthosema Ceratoscopelus Ceratoscopelus Ceratoscopelus Diaphus Diogenichthys Hygophum Hygophum Lampanyctus Myctophum Myctophum Myctophum Notolychnus Notoscopelus	suborbitale maderensis warmingi sp. sp. atlanticus reinhardti sp. sp. asperum obtusirostre sp. valdiviae sp.
NETTASTOMIDAE		
OPHICHTHIDAE (snake eels)	Myrophis	sp.
OPHIDIIDAE (cusk-eels and brotulas)		

Table 13. (Continued)

Family	Genus	Species
PARALEPIDIDAE	Lestidiops 	sp.
SCARIDAE (parrotfishes)		<del></del>
SCIAENIDAE (drums)	Cynoscion Leiostomus	sp. <u>xanthurus</u> 
SCOMBRIDAE (mackerels and tunas)	Auxis Scomber	sp.
SCOPELARCHIDAE (pearleyes)		<u></u>
SCOPELOSAURIDAE	Scopelosaurus Scopelosaurus	mauli sp.
SERRANIDAE (sea basses)	Centropristis Diplectrum	sp.
SPARIDAE (porgies)		<del></del>
STROMATEIDAE (butterfishes)	Cubiceps Peprilus Peprilus	pauciradiatus burti sp.
SYNODONTIDAE (lizardfishes)	Saurida Synodus 	sp. foetens
TAENIOPHORIDAE	Taeniophorus	sp.
TETRAODONTIDAE (puffers)		
TRICHIURIDAE (cutlassfishes)	<u>Diplospinus</u> <u>Trichiurus</u>	multistriatus lepturus
TRIGLIDAE (searobins)	Prionotus	sp.

Table 14. Fish larvae from Cruise 2 showing family, genera, and species (March 18 and 19, 1976).

Family	Genus	Species
BOTHIDAE (lefteye flounders)	Bothus	ocellatus
BRANCHIOSTEGIDAE (tilefishes)	Caulolatilus	sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CARANGIDAE (jacks and pompanos)	Trachurus	lathami
CLUPEIDAE (herrings)	Brevoortia Brevoortia Etrumeus Sardinella	patronus sp. teres anchovia
CYNOGLOSSIDAE (tonguefishes)	Symphurus	sp.
DYSOMMIDAE (arrowtooth eels)		
ENGRAULIDAE (anchovies)	Engraulis	eurystole
GADIDAE (codfishes)		
GOBIIDAE (gobies)		<b></b>
GONOSTOMATIDAE (lightfishes)	<u>Cyclothone</u> <u>Maurolicus</u> Vinciguerria	sp. sp. sp.
MICRODESMIDAE (wormfishes)	Microdesmus	sp.
MUGILIDAE (mullets)	Mugil	sp.
MULLIDAE (goatfishes)		
MYCTOPHIDAE (lanternfishes)	Benthosema Ceratoscopelus Ceratoscopelus	suborbitale maderensis warmingi

Table 14. (Continued)

Family	Genus	Species
MYCTOPHIDAE (Cont'd)	Ceratoscopelus Diaphus Diogenichthys Hygophum Hygophum Lampanyctus Myctophum Notolychnus Notoscopelus	sp. sp. atlanticus reinhardti sp. sp. sp. valdiviae sp.
NETTASTOMIDAE		
OPHIDIIDAE (cusk-eels and brotulas)	Rissola 	marginata
PARALEPIDIDAE		
POMADASYIDAE (grunts)		
SCIAENIDAE (drums)	Cynoscion Menticirrhus	sp. sp.
SCOMBRIDAE (mackerels and tunas)	Scomber	sp.
SERRANIDAE (sea basses)	Anthias Centropristis Diplectrum Hemanthias	sp. sp. sp. vivanus
SPARIDAE (porgies)		<b></b>
SPHYRAENIDAE (barracudas)	Sphyraena	borealis
STROMATEIDAE (butterfishes)	Cubiceps Peprilus	pauciradiatus <u>burti</u> 
SYNODONTIDAE (lizardfishes)	Saurida Synodus Synodus	sp. foetens sp.

Table 14. (Continued)

Family	Gorus	Species
TETRAODONTIDAE (puffers)		<b></b>
TRICHIURIDAE (cutlassfishes)	Diplospinus Trichiurus	multistriatus lepturus
TRIGLIDAE (searobins)	Prionotus	sp.

Table 15. Fish larvae from Cruise 3 showing family, genera, and species (April 2 and 3, 1976).

Family	Genus	Species
BOTHIDAE (lefteye flounders)	Bothus Syacium	ocellatus sp.
BRANCHIOSTEGIDAE (tilefishes)	Caulolatilus	sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CARANGIDAE (jacks and pompanos)	Trachinotus Trachurus	sp. lathami 
CLUPEIDAE (herrings)	Brevoortia Etrumeus Sardinella	patronus teres sp.
CYNOGLOSSIDAE (tonguefishes)	Symphurus	sp.
ENGRAULIDAE (anchovies)	Engraulis	eurystole
GEMPYLIDAE (snake mackerels)	Gempylus	serpens
GOBIIDAE (gobies)		
GONOSTOMATIDAE (lightfishes)	Cyclothone Maurolicus Vinciguerria	sp. sp. sp.
KYPHOSIDAE (sea chubs)	Kyphosus	sp.
MELAMPHAIDAE	Melamphais	sp.
MICRODESMIDAE (wormfishes)	Microdesmus	sp.
MUGILIDAE (mullets)	Mugil	sp.
MULLIDAE (goatfishes)		

Table 15. (Continued)

Family	Genus	Species
MYCTOPHIDAE (lanternfishes)	Benthosema Ceratoscopelus Ceratoscopelus Diaphus Diogenichthys Hygophum Hygophum Lampanyctus Myctophum Notolychnus	suborbitale maderensis warmingi sp. atlanticus reinhardti sp. sp. sp. yaldiviae
NETTASTOMIDAE	<del></del>	on con
OGCOCEPHALIDAE (batfishes)		
OPHIDIIDAE (cusk-eels and brotulas)	Rissola 	marginata
PARALEPIDIDAE		an an
POMADASYIDAE (grunts)		
PRIACANTHIDAE (bigeyes)		
SCIAENIDAE (drums)	Cynoscion Cynoscion Menticirrhus Pogonias	sp. sp. cromis
SCOMBRIDAE (mackerels and tunas)	Scomber	sp.
SCOPELARCHIDAE (pearleyes)	<del></del>	
SERRANIDAE (sea basses)	Anthias Centropristis Diplectrum	sp. sp. sp.
SOLEIDAE (soles)	Gymnachirus	sp.
SPARIDAE (porgies)		

Table 15. (Continued)

Family	Genus	Species
SPHYRAENIDAE (barracudas)	Sphyraena Sphyraena	borealis sp.
STROMATEIDAE (butterfishes)	Cubiceps Peprilus	pauciradiatus burti 
SYNODONTIDAE (lizardfishes)	Saurida Synodus Synodus	sp. foetens sp
TETRAODONTIDAE (puffers)	Sphoeroides	sp. 
TRICHIURIDAE (cutlassfishes)	Trichiurus	lepturus
TRIGLIDAE (searobins)	Prionotus	sp. 

Table 16. Fish larvae from Cruise 4 showing family, genera, and species (May 30 - June 7, 1976).

Family	Genus	Species
ANTENNARIIDAE (frogfishes)		
BATHYLAGIDAE (deepsea smelts)	Bathylagus	sp.
BLENNIIDAE (combtooth blennies)		
BOTHIDAE (lefteye flounders)	Bothus Bothus Cyclopsetta Syacium Syacium	ocellatus sp. sp. gunteri sp.
BRANCHIOSTEGIDAE (tilefishes)	Caulolatilus	sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CARANGIDAE (jacks and pompanos)	Caranx Chloroscombrus Decapterus Selene Trachinotus Trachurus	chrysurus punctatus vomer sp. lathami
CHIASMODONTIDAE		
CLUPEIDAE (herrings)	Harengula 	jaguana 
CONGRIDAE (conger eels)		
CYNOGLOSSIDAE (tonguefishes)	Symphurus	sp.
ENGRAULIDAE (anchovies)	Anchoa Engraulis	sp. eurystole 
EXOCOETIDAE (flyingfishes and halfbeaks)		

Table 16. (Continued)

Family	Genus	Species
GEMPYLIDAE (snake mackerels)		<del></del>
GERREIDAE (mojarras)	. <del></del>	
GOBIIDAE (gobies)		
GONOSTOMATIDAE (lightfishes)	Cyclothone Diplophos Gonostomus Ichthyococcus Maurolicus Vinciguerria	sp. sp. atlanticum sp. sp. sp.
GRAMMISTIDAE (soapfishes)	Rypticus	saponaceus
KYPHOSIDAE (sea chubs)	Kyphosus	sp.
LUTJANIDAE (snappers)		
MELAMPHAIDAE		
MICRODESMIDAE (wormfishes)	<u>Microdesmus</u>	sp.
MUGILIDAE (mullets)	Mugil	sp.
MULLIDAE (goatfishes)		- <u>-</u> -
MURAENIDAE (morays)	Gymnothorax	sp.
MYCTOPHIDAE (lanternfishes)	Benthosema Ceratoscopelus Ceratoscopelus Diaphus Diogenichthys Hygophum Hygophum Lampadena Lampanyctus Myctophum Myctophum	suborbitale maderensis warmingi sp. atlanticus reinhardti sp. sp. sp. obtusirostre sp.

Table 16. (Continued)

Family	Genus	Species
MYCTOPHIDAE (Cont'd)	Notolychnus Notoscopelus	valdiviae sp.
NETTASTOMIDAE		
OGCOCEPHALIDAE (batfishes)	<u></u>	
OPHICHTHIDAE (snake eels)		
OPHIDIIDAE (cusk-eels and brotulas)		_ <del></del>
PARALEPIDIDAE	Lestidiops 	sp.
POMADASYIDAE (grunts)	<u> Haemulon</u>	sp.
PRIACANTHIDAE (bigeyes)		
SCARIDAE (parrotfishes)		
SCIAENIDAE (drums)	Cynoscion Cynoscion Menticirrhus	nothus sp. sp.
SCOMBRIDAE (mackerels and tunas)	Auxis Euthynnus Katsuwonus Scomberomorus Scomberomorus Thunnus Thunnus	sp. alletteratus pelamis cavalla maculatus atlanticus thynnus sp.
SCOPELARCHIDAE (pearleyes)		
SCORPAENIDAE (scorpionfishes)	<del></del>	<b></b>
SERRANIDAE (sea basses)	Anthias Anthias	tenuis sp.

Table 16. (Continued)

Family	Genus	Species
SERRANIDAE (Cont'd)	Diplectrum Hemanthias Liopropoma Serraniculus	sp. vivanus sp. pumilio
SOLEIDAE (soles)	Gymnachirus	sp.
SPARIDAE (porgies)	<del></del>	
SPHYRAENIDAE (barracudas)	Sphyraena Sphyraena	guachancho sp.
STROMATEIDAE (butterfishes)	Cubiceps Peprilus Peprilus	pauciradiatus alepidotus burti
SYNGNATHIDAE (pipefishes and seahorses)	Syngnathus	louisianae
SYNODONTIDAE (lizardfishes)	Saurida Synodus Synodus	sp. foetens sp.
TETRAODONTIDAE (puffers)	Sphoeroides	sp. 
TRICHIURIDAE (cutlassfishes)	Diplospinus Lepidopus Trichiurus	multistriatus sp. lepturus
TRIGLIDAE (searobins)	Prionotus	sp.

Table 17. Fish larvae from Cruise 5 showing family, genera, and species (July 10 and 11, 1976).

Family	Genus	Species
ALEPISAURIDAE (lancetfishes)		
ANTENNARIIDAE (frogfishes)		
BALISTIDAE (triggerfishes and filefishes)	<u>Balistes</u>	sp.
BATHYLAGIDAE (deepsea smelts)	Bathylagus	sp.
BOTHIDAE (lefteye flounders)	Bothus Bothus Cyclopsetta Syacium Syacium	ocellatus sp. sp. gunteri sp.
BRANCHIOSTEGIDAE (tilefishes)	Caulolatilus	sp. 
BREGMACEROTIDAE . (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CARANGIDAE (jacks and pompanos)	Caranx Chloroscombrus Decapterus Oligoplites Selene Vomer	sp. chrysurus punctatus saurus vomer setapinnis
CHAULIODONTIDAE (viperfishes)	Chauliodus	sp.
CLUPEIDAE (herrings)	Harengula 	jaguana 
CONGRIDAE (conger eels)		
CYNOGLOSSIDAE (tonguefishes)	Symphurus	sp.

Table 17. (Continued)

Family	Genus	Species
ENGRAULIDAE (anchovies)	Anchoa Engraulis	sp. eurystole
GERREIDAE (mojarras)	<del></del>	<del></del>
GOBIIDAE (gobies)	<del></del>	
GONOSTOMATIDAE (lightfishes)	Cyclothone Maurolicus Vinciguerria	sp. sp. sp.
GRAMMISTIDAE (soapfishes)	Rypticus	saponaceus
LUTJANIDAE (snappers)		<b></b>
MICRODESMIDAE (wormfishes)	Microdesmus	sp.
MUGILIDAE (mullets)	Mugil	sp.
MULLIDAE (goatfishes)		
MURAENIDAE (morays)	Gymnothorax	sp.
MYCTOPHIDAE (lanternfishes)	Benthosema Bolinichthys Ceratoscopelus Ceratoscopelus Diaphus Diogenichthys Hygophum Hygophum Lampadena Lampanyctus Myctophum Myctophum Notolychnus Notoscopelus	suborbitale sp. maderensis warmingi sp. atlanticus reinhardti sp. sp. sp. obtusirostre sp. valdiviae sp.

Table 17. (Continued)

Family	Genus	Species
NETTASTOMIDAE		
OPHICHTHIDAE (snake eels)	·	
OPHIDIIDAE (cusk-eels and brotulas)	<del></del>	
PARALEPIDIDAE	Lestidiops 	sp.
PRIACANTHIDAE (bigeyes)		
SCIAENIDAE (drums)	Cynoscion Menticirrhus	sp.
SCOMBRIDAE (mackerels and tunas)	Auxis Euthynnus Scomberomorus Scomberomorus Thunnus Thunnus	sp. alletteratus cavalla maculatus atlanticus sp.
SCOPELARCHIDAE (pearleyes)		
SCORPAENIDAE (scorpionfishes)	Scorpaena	sp.
SERRANIDAE (sea basses)	Anthias Diplectrum Hemanthias Serraniculus	sp. sp. vivanus pumilio
SOLEIDAE (soles)	<u>Gymnachirus</u>	sp.
SPHYRAENIDAE (barracudas)	Sphyraena Sphyraena	guachancho sp.
STROMATEIDAE (butterfishes)	Cubiceps Peprilus	pauciradiatus alepidotus

Table 17. (Continued)

Family	Genus	Species
SYNODONTIDAE	Saurida	sp.
(lizardfishes)	Synodus	sp.
TETRAODONTIDAE (puffers)	Sphoeroides	sp.
TRICHIURIDAE (cutlassfishes)	Diplospinus Trichiurus	multistriatus lepturus
TRIGLIDAE (searobins)	Prionotus	sp.

Table 18. Fish larvae from Cruise 6 showing family, genera, and species (August 27 and 28, 1976).

Family	Genus	Species
APOGONIDAE (cardinalfishes)		
BALISTIDAE (triggerfishes and filefishes)	<u>Balistes</u>	sp.
BOTHIDAE (lefteye flounders)	Bothus Bothus Cyclopsetta Syacium Syacium	ocellatus sp. sp. gunteri sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CARANGIDAE (jacks and pompanos)	Caranx Chloroscombrus Chloroscombrus Decapterus Trachinotus	sp. chrysurus sp. punctatus sp.
CLUPEIDAE (herrings)	Harengula Opisthonema Sardinella	jaguana oglinum anchovia 
CORYPHAENIDAE (dolphins)	Coryphaena	sp.
CYNOGLOSSIDAE (tonguefishes)	Symphurus	sp.
ENGRAULIDAE (anchovies)	Anchoa Engraulis	sp. <u>eurystole</u> 
EPHIPPIDAE (spadefishes)	Chaetodipterus	faber
GERREIDAE (mojarras)		
GOBIIDAE (gobies)		

Table 18. (Continued)

Family	Genus	Species
GONOSTOMATIDAE (lightfishes)	Cyclothone Maurolicus Vinciguerria	sp. sp. sp.
GRAMMISTIDAE (soapfishes)	Rypticus	saponaceus
LUTJANIDAE (snappers)	Lutjanus 	sp.
MICRODESMIDAE (wormfishes)	Microdesmus	sp.
MUGILIDAE (mullets)	Mugil	sp.
MURAENIDAE (morays)	Gymnothorax	sp.
MYCTOPHIDAE (lanternfishes)	Bolinichthys Ceratoscopelus Ceratoscopelus Diaphus Hygophum	sp. warmingi sp. sp. reinhardti
NETTASTOMIDAE		
OGCOCEPHALIDAE (batfishes)		
OPHICHTHIDAE (snake eels)	<del></del>	
OPHIDIIDAE (cusk-eels and brotulas)	<del></del>	
PARALEPIDIDAE	Lestrolopis	sp.
PRIACANTHIDAE (bigeyes)		
POMADASYIDAE (grunts)	Haemulon	sp.

Table 18. (Continued)

Family	G⊕nus	Species
SCIAENIDAE (drums)	Larinus Menticirrhus Micropogon	fasciatus sp. undulatus
SCOMBRIDAE (mackerels and tunas)	Auxis Euthynnus Katsuwonus Scomberomorus Scomberomorus Thunnus	sp. alletteratus pelamis cavalla maculatus atlanticus sp.
SCORPAENIDAE (scorpionfishes)	Scorpaena	sp.
SERRANIDAE (sea basses)	Diplectrum	sp.
SOLEIDAE (soles)		
SPHYRAENIDAE (barracudas)	Sphyraena 	sp.
STROMATEIDAE (butterfishes)	Peprilus	alepidotus
SYNODONTIDAE (lizardfishes)	Saurida Synodus	sp. sp.
TETRAODONTIDAE (puffers)		
TRICHIURIDAE (cutlassfishes)	Trichiurus	lepturus 

Table 19. Fish larvae from Cruise 7 showing family, genera, and species (September 10-15, 1976).

Family	Genus	Species
APOGONIDAE (cardinalfishes)	<del></del>	
BALISTIDAE (triggerfishes and filefishes)	Monacanthus	sp.
BATHYLAGIDAE (deepsea smelts)	Bathylagus	sp.
BLENNIIDAE (combtooth blennies)		
BOTHIDAE (lefteye flounders)	Bothus Bothus Cyclopsetta Paralichthys Syacium Syacium	sp. sp. sp. gunteri sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CALLIONYMIDAE (dragonets)	Callionymus 	sp.
CARANGIDAE (jacks and pompanos)	Caranx Caranx Chloroscombrus Chloroscombrus Decapterus Oligoplites Selene Trachinotus Vomer	crysos sp. chrysurus sp. punctatus saurus vomer sp. setapinnis
CLUPEIDAE (herrings)	Harengula Opisthonema Opisthonema Sardinella	jaguana oglinum sp. anchovia
CONGRIDAE (conger eels)		. <del></del>
CYNOGLOSSIDAE (tonguefishes)	Symphurus Symphurus	civitatus plagiusa

Table 19. (Continued)

Family	Genus	Species
CYNOGLOSSIDAE (Cont'd)	Symphurus	sp.
ELOPIDAE (tarpons)	Elops	saurus
ENGRAULIDAE (anchovies)	Anchoa Engraulis	sp. eurystole
GEMPYLIDAE (snake mackerels)		
GERREIDAE (mojarras)	Eucinostomus	lefroyi 
GOBIIDAE (gobies)	<del></del>	
GONOSTOMATIDAE (lightfishes)	Cyclothone Maurolicus Vinciguerria	sp. sp.
GRAMMISTIDAE (soapfishes)	Rypticus Rypticus	saponaceus sp.
HOLOCENTRIDAE (squirrelfishes)		<del></del>
ISTIOPHORIDAE (billfishes)		
LABRIDAE (wrasses)		
LUTJANIDAE (snappers)	<u>Lutjanus</u> 	sp.
MELANOSTOMIATIDAE (scaleless dragonfishes)		. <del></del>
MICRODESMIDAE (wormfishes)	Microdesmus	sp.
MUGILIDAE (mullets)	Mugil 	sp.

Table 19. (Continued)

Family	Genus	Species
MURAENIDAE (morays)	Gymnothorax	sp.
MYCTOPHIDAE (lanternfishes)	Bolinichthys Ceratoscopelus Ceratoscopelus Ceratoscopelus Diaphus Lampadena Myctophum Myctophum	sp. maderensis warmingi sp. sp. sp. sp. obtusirostre sp.
NETTASTOMIDAE	<b></b> .	
OGCOCEPHALIDAE (batfishes)	· · ·	
OPHICHTHIDAE (snake eels)	Myrophis	sp.
OPHIDIIDAE (cusk-eels and brotulas)	Rissola 	sp.
PARALEPIDIDAE		
POMADASYIDAE (grunts)		
PRIACANTHIDAE (bigeyes)		·
SCARIDAE (parrotfishes)		. <del></del>
SCIAENIDAE (drums)	Cynoscion Cynoscion Cynosion Larimus Menticirrhus Sciaenops	arenarius nothus sp. fasciatus sp. ocellata
SCOMBRIDAE (mackerels and tunas)	Auxis Euthynnus Katsuwonus Scomberomorus Scomberomorus Thunnus	sp. alletteratus pelamis cavalla maculatus atlanticus

Table 19. (Continued)

Family	Genus	Species
SCOMBRIDAE (Cont'd)	Thunnus	sp.
SCORPAENIDAE (scorpionfishes)	Scorpaena	sp.
SERRANIDAE (sea basses)	Diplectrum Liopropoma Serraniculus	sp. sp. pumilio
SPHYRAENIDAE (barracudas)	Sphyraena Sphyraena	guachancho sp.
STROMATEIDAE (butterfishes)	Peprilus	sp.
SYNODONTIDAE (lizardfishes)	Saurida Synodus Trachinocephalus	sp. sp. myops
TETRAODONTIDAE (puffers)	Sphoeroides	sp.
TRICHIURIDAE (cutlassfishes)	<u>Trichiurus</u>	lepturus 
TRIGLIDAE (searobins)	Prionotus	sp.

Table 20. Fish larvae from Cruise 8 showing family, genera, and species (November 9 and 10, 1976).

Family	Genus	Species
BATHYLAGIDAE (deepsea smelts)	Bathylagus	sp.
BOTHIDAE (lefteye flounders)	Bothus Bothus Cyclopsetta Paralichthys Syacium Syacium	sp. sp. sp. gunteri sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CARANGIDAE (jacks and pompanos)	Decapterus	punctatus
CHAULIODONTIDAE (viperfishes)	Chauliodus Chauliodus	sloani sp.
CLUPEIDAE (herrings)	Brevoortia Sardinella	sp. anchovia 
CONGRIDAE (conger eels)		· 
CYNOGLOSSIDAE (tonguefishes)	Symphurus	sp.
ELOPIDAE (tarpons)	Elops	saurus
ENGRAULIDAE (anchovies)	Engraulis	eurystole 
GADIDAE (codfishes)	Urophycis	sp. 
GOBIIDAE (gobies)		
GONOSTOMATIDAE (lightfishes)	Cyclothone Maurolicus Polymetme Vinciguerria Vinciguerria	sp. sp. corythaeola nimbaria sp.

Table 20. (Continued)

Family	Genus	Species
KYPHOSIDAE (sea chubs)	Kyphosus	sp.
LABRIDAE (wrasses)	<del></del>	
LUTJANIDAE (snappers)		
MICRODESMIDAE (wormfishes)	Microdesmus	sp.
MORINGUIDAE (spaghetti eels)	Neoconger	mucronatus
MUGILIDAE (mullets)	Mugil 	sp.
MULLIDAE (goatfishes)		<del></del>
MYCTOPHIDAE (lanternfishes)	Benthosema Ceratoscopelus Ceratoscopelus Diaphus Diogenichthys Hygophum Lampanyctus Myctophum	suborbitale maderensis sp. sp. atlanticus sp. sp. obtusirostre
NETTASTOMIDAE	·	
OPHICHTHIDAE (snake eels)		
OPHIDIIDAE (cusk-eels and brotulas)	Rissola 	marginata 
PARALEPIDIDAE	<u>Lestidiops</u>	sp.
POMADASYIDAE (grunts)		
POMATOMIDAE (bluefishes)	Pomatomus	saltatrix
SCARIDAE (parrotfishes)		

Table 20. (Continued)

Family	Genus	Species
SCIAENIDAE (drums)	Cynoscion Larimus Leiostomus Micropogon Micropogon	arenarius fasciatus xanthurus undulatus sp.
SCOPELARCHIDAE (pearleyes)		
SCORPAENIDAE (scorpionfishes)	Scorpaena	sp.
SERRANIDAE (sea basses)	Diplectrum	sp.
SPARIDAE (porgies)		
STROMATEIDAE (butterfishes)	Peprilus Peprilus	burti sp.
SYNODONTIDAE (lizardfishes)	Saurida Saurida Synodus	brasiliensis sp. sp
TETRAODONTIDAE (puffers)	<del></del>	
TRICHIURIDAE (cutlassfishes)	Diplospinus Trichiurus	multistriatus lepturus 
TRIGLIDAE (searobins)	Prionotus	sp.

Table 21. Fish larvae from Cruise 9 showing family, genera, and species (December 1 and 2, 1976).

Family	Genus	Species
ARGENTINIDAE (argentines)	<del></del>	
BOTHIDAE (lefteye flounders)	Bothus Bothus Monolene Paralichthys Syacium	sp. sp. sp. sp.
BRANCHIOSTEGIDAE (tilefishes)	Caulolatilus	sp.
BREGMACEROTIDAE (codlets)	Bregmaceros Bregmaceros	atlanticus sp.
CHAULIODONTIDAE (viperfishes)	Chauliodus	sp.
CLUPEIDAE (herrings)	Brevoortia Etrumeus Sardinella	teres anchovia
CONGRIDAE (conger eels)	Ariosoma Hildebrandia	balearicum sp.
CYNOGLOSSIDAE (tonguefishes)	Symphurus Symphurus	plagiusa sp.
ENGRAULIDAE (anchovies)	Anchoa Engraulis	sp. eurystole
GADIDAE (codfishes)	Urophycis	sp.
GOBIIDAE (gobies)		
GONOSTOMATIDAE (lightfishes)	Cyclothone Gonostomus Maurolicus Polymetme Vinciguerria Vinciguerria Vinciguerria	sp. atlanticum sp. corythaeola nimbaria poweriae sp.

Table 21. (Continued)

Family	Genus	Species
LABRIDAE (wrasses)	<u>Halichoeres</u>	sp.
MICRODESMIDAE (wormfishes)	Microdesmus	sp.
MORINGUIDAE (spaghetti eels)	Neoconger	mucronatus
MUGILIDAE (mullets)	Mugil	sp.
MYCTOPHIDAE (lanternfishes)	Benthosema Bolinichthys Ceratoscopelus Diaphus Hygophum Hygophum Myctophum Myctophum Taaningichthys	suborbitale sp. sp. sp. reinhardti sp. obtusirostre sp. sp.
NETTASTOMIDAE		
OPHICHTHIDAE (snake eels)		
OPHIDIIDAE (cusk-eels and brotulas)	Rissola	marginata 
PARALEPIDIDAE	Lestidiops Sudis	sp. sp.
PRIACANTHIDAE (bigeyes)		
SCARIDAE (parrotfishes)		
SCIAENIDAE (drums)	Cynoscion Leiostomus Micropogon	arenarius xanthurus undulatus
SCORPAENIDAE (scorpionfishes)	Scorpaena	sp.

Table 21. (Continued)

Family	Genus	Species
SERRANIDAE (sea basses)	Diplectrum Hemanthias	sp. vivanus
		***
SPARIDAE (porgies)	Stenotomus	sp.
STROMATEIDAE (butterfishes)	Peprilus	burti
SYNODONTIDAE (lizardfishes)	Saurida Saurida	brasiliensis sp.
TRICHIURIDAE (cutlassfishes)	Diplospinus Trichiurus	multistriatus lepturus
TRIGLIDAE (searobins)	Prionotus	sp.

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Table 22. Occurrence of larvae by family, genera, and species by transect and station for all cruises.

T	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<del> </del>																	
r	ish larvae				ct I			rar			I.		Tra			III			t IV
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Family	Genus	Species		2	3	1_	2	_3	_4_	_5	6	_7_	1	2	3		1	_2	<u>3</u> .
Alepisauridae												x							
Antennariidae								x		x	x	x							x
Apogonidae		'								•	x			x	x			x	
Argentinidae												x							
Balistidae	Balistes	sp.						x		x									
	Monacanthus	sp.			x							x							
Bathylagidae	Bathylagus	sp.			x			x		x	x	x							
Blenniidae				x					x			x							
Bothidae	Bothus	ocellatus	x		x	x	x	x	x	x	x	x	x	x	x		x	<b>. x</b>	x
	Bothus	sp.	X	X	x		x	x	x	x	x	x		x	x		x	x	x
	<u>Cyclopsetta</u> Monolene	sp.		x			x	X	X	X	X	x	x	X	x			x	
	Paralichthys	sp.				<b>.</b>	<b></b>		x		x								
•	Syacium	gunteri	x	x	x	x x	x x	х	x	x	x x	x x	x	x x			x x		x
	Syacium	sp.	x	x	x	x	x	x	x	x	x	x	x	X	x		X		X
			x	x	x	x	x	x				x	x		x		x		x
																	_		
Branchiostegidae	Caulolatilus	sp.				x	x	x	x	x	x	x		x	x			x	x
								x				x							
Bregmacerotidae	Bregmaceros	atlanticus		x	<b>x</b>	Y	x	x	x	х	x	x	x	x	x		x	•	x
	Bregmaceros	sp.	•	x	X	•		x			_	x		X	X				x X
		•			,														45

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Table 22. (Continued)

I	ish larvae		Tra	nse	ct I		T	ran	sec	t I	Ī		Tran	sec	t III	Trar	sec	t IV
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Family	Genus	Species	1	2	3	<u>1</u>	2	3	4	5	6	7	<u> </u>	2	3	1	2	3
Callionymidae	Callionymus	sp.									x							
·							-			x								
Carangidae	Caranx	crysos																x
•	Caranx	sp.	x	x	x		x	x		x	x	x		x	x	x	x	x
	Chloroscombrus	chrysurus	x	X	X	X		x	X				x	X		x		x
	Chloroscombrus	sp.	x								x							
	Decapterus	punctatus			x			x			x	x			x			x
	Oligoplites	saurus								x	x							
	Selene	vomer	х	x	x	x	x	x	x	x	x	х	x					
	Trachinotus	sp.							x			x			x			x
	Trachurus	lathami	x	x	x		x	x	x	x	x	x		x	ж		x	
	Vomer	setapinnis		x							x						x	
	<del></del>		x	x		x	x	x	x	x	x	x	х	X	x	x	x	x
Chauliodontidae	Chauliodus	sloani						x										
	Chauliodus	sp.					x	x		x	X	x						
Chiasmodontidae		<del></del> .			x			x			x	x						
Clupeidae	Brevoortia	patronus	x	x		x	x	x	x				x			x		
-	Brevoortia	sp.				x	x		x			x						
	Etrumeus	teres		x			x	x	x	x	x	x	x			x		
	Harengula	jaguana	х			x	x	x	x	x	x	x	x	x	x	. x		
	Opisthonema	oglinum				x	x	x	x	x	x	x	x				x	
	Opisthonema	sp.						x										
	Sardinella	anchovia				x		x	x		x	x				х	x	
	Sardinella	sp.										x						
			х	x		x	x	х	x	x	x	X	x	X		х	x	x

Table 22. (Continued)

	Fish larvae		Tra	ınse	ect I			ran	sec	t I	Ī		Tran	sec	t III	Tre	ns	ec.	t IV
			St	ati	on			St	ati				- 8	tat	ion	- 5	ītε	ti	on
Family	Genus	Species	1_	2	3	_1	2	_3_	4	_5_	_6_	7	1	2	3		<u>L</u>	2	3
Congridae	Ariosoma	balearicum									x	x							
	Hildebrandia	sp.					x	x		x	x	x							
				x	x		x	x		x	x	x		x	x			x	x
Coryphaenidae	Coryphaena	sp.									x								
Cynoglossidae	Symphurus	civitatus									x								
	Symphurus	piger		x								•							
	Symphurus	plagiusa								X		x		x					x
	Symphurus	sp.	x	x	x	x	X	x	x	x	X	x	X	: x	x	3	ĸ	X	X
											х								
Dysommidae		<del></del>						x											
Elopidae	Elops	saurus						x		x									
Engraulidae	Anchoa	sp.	x	x		x	х	x	x	X	x	x	3	: х		3	x	x	x
_	Engraulis	eurystole	x	x	x	x	x	x	x	x	x	x	3	: х	x			x	x
			x	x	x	x	x	x	x	x	x	x	3	х	x	3	x	x	x
Ephippidae	Chaetodipterus	faber									x								
Exocoetidae		<b></b> .										x					x		x
Gadidae	Urophycis	sp.					x	x	x	x	x	x		х	: <b>x</b>			*	x
							x	x			x								
Gempylidae	Gempylus	serpens										x							
- tPJ warne								x		x				·	<b>x</b>			x	

Table 22. (Continued)

	Fish larvae				ct I		ľ	rar			Ι				t III	Tra	ase	et IV
			St	ati	on			St	ati	on			S	tat	ion	St	tat:	ion
Family	Genus	Species	1	2	3	1	2	3	4	5	6	7	1	2	3	1	2	3
Gerreidae	Eucinostomus	lefroyi	x															
			x		x		x	x	•			x	x				x	x
Gobiidae	<b></b>		x	x	x	x	x	x	x	x	x	x	х	<b>x</b>	x	x	x	x
Gonostomatidae	Cyclothone	sp.		x	×		ж	x	x	x	x	x		x	x		x	x
	Diplophos	sp.																x
	Gonostomus	atlanticum			x							x						x
	Gonostomus	elongatum						х										
	Ichthyococcus	sp.			x													
	<u>Maurolicus</u>	sp.			x		x	x		x	х	X			x			x
	Polymetme	corythaeola						x				X						
	Vinciguerria	nimbaria						x				x						
	Vinciguerria	poweriae						x										
	Vinciguerria	sp.			x		x	x		x	x	x			x			x
					x	x	x	x		x	x	x		x	x			x
Grammistidae	Rypticus	saponaceus		x		x	x			x	x							
	Rypticus	sp.													x	x	x	
·	<del></del> -							x		x								
Holocentridae					÷													x
Istiophoridae																		x
Kyphosidae	Kyphosus	sp.					x	x			x	x		x	x			x
Labridae	Halichoeres	sp.										x						
								x			x	x						x

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Table 22. (Continued)

F	ish larvae				ct I		Ţ	rar	sec	t I	Ι		Tra	ns	ect	III	Tra	nse	ct IV
		-	St	ati	on			St	ati	.on					ati				ion
Family	Genus	Species	1	2	3	<u> </u>	2	3	4	5	6	7		1	2	3	1		3
Lutjanidae	Lutjanus	sp.		x	x		x	x		x	x				x			х	
				x			x	x	x	x	x	x			x	x		х	x
Melamphaidae	Melamphais	sp.									x								
	· <b></b>			X								x							
Melanostomiatidae					x														
Microdesmidae	Microdesmus	sp.	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x
						x													
Moridae					x					x	x				x	x			x
Moringuidae	Neoconger	mucronatus					x	x	x	x	x	x			x				
Mugilidae	Mugil	cephalus			x							x							
	Mugil	sp.		х	x		х	Х	x	x	x	x x			x	x			x x
16.7723																			
Mullidae					x		х	х	х	х	х	х					x	Х	x
Muraenidae	Gymnothorax	sp.		x	x		x	x	x	x	x	x			x			x	
								х											х
Myctophidae	Benthosema Bolinichthys	suborbitale sp.		x	x x		x	x		x x	x x	x x							x
	Ceratoscopelus	maderensis			x		x	х		x	x	x			х	x			x
	Ceratoscopelus	warmingi			x		x	x		x	x	x			2.	x			x
	Ceratoscopelus	sp.			x		x	x			x	x							x
	Diaphus	sp.			x		x	x		x	x	x			x	x	x	х	

Table 22. (Continued)

	Fish larvae		Tra	nse	ct I		ľ	ran	sec	t I	I		Trans	ect	III	Tra	nse	ct I	<u>v</u>
			St	ati	on.			St	ati	on			St	ati	on	S	tat		
Family	Genus	Species	1	2	3	<u>1</u>	2	3	4	5	6	7	1	2	3	1	2	3	
Myctophidae	Diogenichthys	atlanticus	-	x	<b>X</b>			x		x		x		x	x			x	
(Cont'd)	Hygophum	reinhardti			x		x	x		x	x	x			x			x	
	Hygophum	sp.			x		x	x		X	x	x		x	x			x	•
	Lampadena	sp.			x			x		x		x						x	
	Lampanyctus	sp.			x		x	x		X	x	x		x	x			x	
•	Myctophum	asperum								X									
	Myctophum	obtusirostr	2		x			x		X	x	x		x	x			X_	
	Myctophum	sp.			x		x	x		x	x	X			x			x	
	Notolychnus	<u>valdiviae</u>			x			x		X	x	х						x	
	Notoscopelus	sp.			x			x		x	x	x		x	x			x	
	Taaningichthys	sp.										x							
	(tops dida)			x	x		x	x		x	x	x		x	x		х	<b>. x</b>	
Nettastomidae				x	x		x	x	x	x	x	x		x	x		x	<b>x</b>	
Ogcocephalidae				x	x			x	x	x	x	x			x		x	•	
Ophichthidae	Myrophis	sp.		x	x				x				x				x		
-		<b></b>	x	x	x	x	x	x	x	x	x	x	x	x	x		X	X	
Op <b>hi</b> diidae	Rissola	marginata			•	x	x		x										
	Rissola	sp.									x	x							
			x	x	x	x	x	x	x	x	x	x	x	x	x	х	c x	<b>x</b>	
Paralepididae	Lestidiops	sp.			x			x		x		x						x	
	Lestrolopis	sp.						x											
	Sudis	sp.									x								
					x		x	x		x	x	x		x	x		x	x	

Table 22. (Continued)

	Fish larvae		Tra	nse	ct I		ľ	ran	sec	t I	Ι		Tr	ans	ect	III	Tran	ised	t IV
			St	ati	on			St	ati	on					ati			ati	
Family	Genus	Species	1	2	3	1	2	3	4	5	6	7		1_	2	3	1	2	3
Pomadasyidae	Haemulon	sp.					x		x			x							
	<u> </u>					x	x	x		x									
Pomatomidae	Pomatomus	saltatrix					x	x			x	x							
Priacanthidae				x	x			x		x	x	x				<b>x</b>			
Scaridae					x		x	x			x	x							x
Sciaenidae	Cynoscion	arenarius				x		x				x							
	Cynoscion	nothus	x			x		x			x								
	Cynoscion	sp.	x	x		x	x		x					x					
	Larimus	fasciatus				x	x	x	x	x		x		x					
	<u>Leiostomus</u>	xanthurus					x	x	x	x	x	x		x					
	Menticirrhus	sp.	x			x	x		x					x			x		x
	Micropogon	undulatus				x	x	х	x	x	x	x					•		
	Micropogon	sp.							x										
	Pogonias	cromis				x													
	Sciaenops	<u>ocellata</u>	x																
	. <del></del>		x			х	x	x	x	x	x	x		x				x	
Scombridae	Auxis	sp.	x	x	x		x	x		x	x	x			x	x	x	x	x
	Euthynnus	alletteratus	x	x	x	x	x	x	x	x	x	x		x	x	x		•	x
	Katsuwonus	pelamis								x	x	X							x
	Scomber	sp.					x			x		x						x	
	Scomberomorus	cavalla	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x
	Scomberomorus	maculatus	x	x		x	x		x	x	x	x		x			x		
	Thunnus	atlanticus			x			x		x	x	x							
	Thunnus	thynnus									x	x						x	x

Table 22. (Continued)

	Fish larvae		Tra	nse	ct I		T	ran	sec	t I	I		Trans			Ī	Tran		
			St	ati	on			St	ati					ati				ati	
Family	Genus	Species	1	2	3	1_	2	3	4	5	6	7	<u> </u>	2	3_		<u> 1</u>	2	3
Scombridae (Cont'd)	Thunnus	sp.	x	x	x x	x	x x	x x	x		x	x x		· x	x			x	X
Scopelarchidae		- <del>-</del>			x		•			x		х .		•			•		x
Scopelosauridae	Scopelosaurus Scopelosaurus	mauli sp.					x	x x				x			x				
																			x
Scorpaenidae	Scorpaena	sp.		x	x		x	x		x	x	x			x			x	x
Serranidae	Anthias	tenuis									x							x	
	Anthias	sp.						x		X	x	×		X					
	Centropristis	sp.		X			x				X			X	.,			X	x
	Diplectrum	sp.	x	X	X	x	X		X	x		x	х		X			_	<b>.</b>
	Hemanthias	<u>vivanus</u>						X			x								x
	Liopropoma	sp.							x				x				x		
	Serraniculus 	pumilio 		x	x		x	x	x	x	x	x			x			x	x
Soleidae	Gymnachirus	sp.	x				x		x			x							
Sparidae	Stenotomus	sp.				x	×	x	x	x	x x	x	x						x
Sphyraenidae	Sphyraena Sphyraena	borealis guachancho						x		x	x			x				x	×

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Table 22. (Continued)

<del></del>			Tra	nse	ct I		T	ran	sec	t I	I		Trans	sect	III	Trar	sec	t IV
			St	ati	on			St	ati	on			St	ati	on		ati	
Family	Genus	Species	<u> </u>	2	3	1	2	3	4	5	6	7	1	2	3	1	2	_3
Sphyraenidae (Cont'd)	Sphyraena 	sp.	x	<b>x</b>		x	x	x x	x	<b>x</b>	x x	x x		x	x	x	x	x
Stromateidae	Cubiceps Peprilus	pauciradiatus alepidotus	3 X	×	x	x	x	x	x	x		x		x	x		x	x
	Peprilus Peprilus	burti sp.	x	x	x x	x	x x		x	x	x x x	x	х	х	x x	x	x	
Syngnathidae	Syngnathus	louisianae	x			x	<b>4</b>				-	•			••	x		
Synodontidae	Saurida Saurida	brasiliensis sp.		x			x x	x x	x	x	x	x	x	x	x	×	x	x
	Synodus Synodus Trachinocephalus	sp. myops	•	x	x	x	x	x	x	x	x	x		x	x		x	
	<b></b>			x		х	x	x	· X	X	х	x		X	<b>x</b>			x
Taeniophoridae	Taeniophorus	sp.										x			x			
Tetraodontidae	Sphoeroides	sp.			x		x x	x	x x	x	x x	x x	x		x x	x	x	x
Trichiuridae	Diplospinus Lepidopus	multistriatus	<u>s</u>		х		x	x x		x	x	x			x			x
	Trichiurus Trichiurus	lepturus sp.		x		x	x	x	x	x	x	x x		x	x		x	
		-		х					X			х						x
Triglidae	Prionotus 	sp.	Х	х	х	x x	x x	x x	x x	x x	x x	x x	x	х	x	x	x x	

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Table 23. Abundance and occurrence of fish eggs from bongo samples collected by cruise at Transect II for all stations during 1976.

Transect	C	ruise 1 (Jan.	/Feb.)		Cruise 2 (Ma	rch)		Cruise 3 (Ap	ril)
and		Percent of			Percent of	No. per	<del></del>	Percent of	No. per
station	No.	total catch	No. per 3	No.	total catch	1,000 m <sup>3</sup>	No.	total catch	1,000 m <sup>3</sup>
		<del>,</del>							
II-1	145	3.1	754	720	9.0	3,840	412	7.9	3,005
II-4	188	4.0	2,105	429	5.4	1,733	1,066	20.4	5,417
II-2	654	13.8	1,666	3,654	46.0	11,083	1,998	38.3	5 <b>,</b> 277
II <b>-</b> 5	633	13.3	1,770	1,092	13.8	2,478	455	8.7	1,118
II-6	552	11.6	711	673	8.5	1,167	394	7.6	701
II-3	1,599	33.7	1,680	778	9.8	1,026	539	10.3	827
II-7	975	20.5	979	592	7.5	639	352	<u>6.8</u>	317
Totals	4,746	100.0	9,665	7,938	100.0	21,966	5,216	100.0	16,662
	C	Cruise 4 (May/	June)		Cruise 5 (Ju	ıly)		Cruise 6 (Au	igust)
				<del></del>		<del>-</del>			_
II-l	334	10.0	2,037	91	3.0	568	38	1.0	298
II-4	1,170	34.9	7,236	1,243	40.5	7,575	512	13.9	2,364
II <b>-</b> 2	962	28.7	3,063	720	23.4	1,363	891	24.1	2,700
II-5	168	5.0	399	511	16.6	980	482	13.1	1,100
II <b>-</b> 6	212	6.3	469	222	7.2	423	1,471	39.8	2,553
II <b>-</b> 3	438	13.1	730	124	4.0	153	171	4.6	243
II <b>-</b> 7	67	2.0	38	162	<u> 5.3</u>	<u> 178</u>	129	<u>3.5</u>	142
Totals	3,351	100.0	13,972	3,073	100.0	11,240	3,694	100.0	9,400
		Cruise 7 (Se	ept.)	·	Cruise 8 (No	ov.)		Cruise 9 (De	ec.)
	7.()	30.0	0.51.	07		176	223	16.0	1,490
II-1	164	19.2	854	27	5 <b>.</b> 2	835	106	7.6	577
II-4	120	14.1	316	158	30.2	296	320	23.0	1,204
II-2	45	5.3	217	78	14.9		48	3.5	113
II <b>-</b> 5	97	11.4	177	31	5.9	59	106	7.6	167
II <b>-</b> 6	156	18.3	266	63	12.1	115 114	251	18.1	371
II-3	164	19.3	260	68	13.0 18.7	104	336	24.2	293
II <b>-</b> 7	106	12.4	119	<u>98</u>		1,699	1,390	100.0	4,215
Totals	852	100.0	2,209	523	100.0	T,099	1,390	100.0	<del></del>

Table 24. Egg abundance and distribution by selected families, cruise and station for 1976 in numbers per  $1,000 \text{ m}^3$ .

	<del></del>	• • •				Cr	uise	ì I			<del></del>			C	ruise	II		Cr	uise	III	
Transect-		I			I	Ι			III			ΙV			II				I		
station	1	2	3	1	2	3	7	1	2	3	1	2	3	1	2	3	7	1	2	3	7
(Family)	-															_			. == .		
Callionymidae	0	0	0	0	58	0	0	0	0	4	0	9	0	0	488	47	60	0	438		11
Clupeidae	62	399	11	308	1208	4	0	0	12	0	349	69	0	196	6929	195	116	0	2736	141	0
Engraulidae	37	200	0	239	0	0	0	163	0	0	0	0	0	973	0	3	4	915	0	. 0	_
Gonostomatidae	0	0	0	0	0	1583	878	0	0	576	0	0	512	0	0	0	0	0	0	0	20
Mugilidae	0	0	0	0	0	0	0	0	30	0	0	0	12	. 0	0	0	15	0	0	0	_
Scombridae	0	0	61	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	
Soleidae	0	26	188	0	153	13	4	0	18	13	0	0	3	0	250	34	6	762	21	22	66
						Cru	iise	IV							Cruis	e V			ruis	_	
Transect-		I			]	ΙΙ			III			IV			II				I.	[	
station	1	2	3	1	2	3	7	1	2	3	1	2	3	1	2	3	7	1	2	3	7
(Family)			,																		
Callionymidae	0	140	17	0	213	13	0	0	254	87	0	106	3	0	70	66	0	0	13	28	19
Clupeidae	0	26	0	0	0	0	0	0	0	0	1475	5	0	0	0	0	0	0	289	0	0
Engraulidae	74	96	0	474	1013	0	0	105	18	0	528	0	0	50	136	0	0	. 49	160	0	0
Gonostomatidae	0	0	0	0	0	0	1.	0	0	0	0	0	21	0	0	0	7	0	0	0	0
Mugilidae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scombridae	319	132	68	0	0	0	5	11	0	61	0	53	18	0	43	0	5	33	103	7	0
Soleidae	0	9	0	0	32	0	2	0	0	3	0	27	0	0	4	0	0	0	0	0	
						Crı	iise	VII						(	Cruise		Ι	(	ruis		
Transect-		I				ΙΙ			III			IV			I]	[			I	I	
station	1	2	3	1	2	3	7	ī	2	3	1	2	3	1	2	3	7	1	2	3	7
(Family)																					
Callionymidae	. 0	0	0	0	0	0	2	0	6	22	0	8	0	0	Ó	0	2	0	0	0	
Clupeidae	0	0	9	0	0	0	65	30	0	0	31	0	0	55	0	35	29	1327	550	3	14
Engraulidae	0	0	2	0	10	0	0	0	12	0.	519	. 0	0	0	0	0	0	0	0	C	0
Gonostomatidae	0	0	0	0	0	24	2	0	0	0	0	0	0	0	0	0	26	0	0	222	•
Mugilidae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	15	50
Scombridae	0	12	56	0	0	3	0	7	215	78	163	0	315	55	16	0	0	68	23	C	0
Soleidae	0	0	0	0	0	0	0	Ò	0	0	417	45	0	0	24	4	0	0	54	C	0

Table 25. Comparison of 1974-76 BLM fish egg and larval data by time, transect and station for all seasonal bongo samples.

**************************************		Fish	eggs			Fish	larvae	
	(Dec./Jan	. 1974-75)		eb. 1976)	(Dec./Jan.	. 1974-75)		ъ. 1976)
Transect-	No. per	No. under	No. per	No. under	No. per	No. under	No. per	No. under
station	1,000 m <sup>3</sup>	10 m <sup>2</sup> 1/	1,000 m <sup>3</sup>	10 m <sup>2</sup> 2/	1,000 m <sup>3</sup>	10 m <sup>2</sup>	1,000 m <sup>3</sup>	10 m <sup>2</sup>
I-1	1,814	115.3	158	20.6	824	52.4	133	17.3
I <b>-</b> 2	712	140.1	1,406	520.2	2,434	478.8	1,045	387.0
I-3	456	418.1	591	762.9	3,560	3,264.2	186	240.1
1I <b>-</b> 1	4,566	1,035.1	754	128.1	470	106.6	31	9.3
II-2	1,992	729.7	1,666	733.2	2,334	855.0	2,158	949.5
II-3	508	1,155.4	1,680	2,117.0	608	1,382.8	289	364.1
III-l	428	85.1	331	66.1	158	31.4	84	16.8
III-2	1,054	830.6	1,464	878.1	842	663.5	300	180.0
III-3	112	93.5	926	934.8	1,232	1,028.1	306	308.8
IV-1	242	43.7	574	126.3	74	13.4	159	35.0
IV-2	5,342	1,110.2	1,107	464.9	3,734	776.0	1,361	571.5
IV-3	1,334	598.5	956	822.3	4,664	2,092.5	326	280.6
			eggs	<del> </del>			larvae	
	(April/	May 1975)	(May/Ju	ne 1976)	(April/N	May 1975)		ne 1976)
Transect-	No. per	No. under	No. per	No. under	No. per	No. under	No. per	No. under
station	1,000 m <sup>3</sup>	10 m <sup>2</sup>	1,000 m <sup>3</sup>	10 m <sup>2</sup>	1,000 m <sup>3</sup>	10 m <sup>2</sup>	1,000 m <sup>3</sup>	10 m <sup>2</sup>
I <b>-</b> 1	270	34.1	0.053	292.7	), 009	<b>53</b> 7	0.093	070 7
I-2	432	121.2	2,251 2,499	924.6	4,098 754	51.7 211.5	2,083	270.7
I-3	432 348						5,235	197.0
		261 2				ט אבט ב		
		264.2	216	279.1	3,758	2,853.5	1,452	1,872.7
II-l	3,488	854.5	2,037	346.2	2,218	543.4	744	126.5
II-1 II-2	3,488 7,070	854.5 2,199.7	2,037 3,063	346.2 1,347.6	2,218 1,648	543.4 512.7	744 5,680	126.5 2,499.1
II-1 II-2 II-3	3,488 7,070 390	854.5 2,199.7 243.6	2,037 3,063 730	346.2 1,347.6 920.1	2,218 1,648 638	543.4 512.7 398.4	744 5,680 1,492	126.5 2,499.1 1,880.1
II-1 II-2 II-3 III-1	3,488 7,070 390 70	854.5 2,199.7 243.6 19.8	2,037 3,063 730 2,452	346.2 1,347.6 920.1 490.5	2,218 1,648 638 316	543.4 512.7 398.4 89.5	744 5,680 1,492 1,094	126.5 2,499.1 1,880.1 1,095.1
II-1 II-2 II-3 III-1 III-2	3,488 7,070 390 70 1,246	854.5 2,199.7 243.6 19.8 475.5	2,037 3,063 730 2,452 1,693	346.2 1,347.6 920.1 490.5 1,015.7	2,218 1,648 638 316 2,116	543.4 512.7 398.4 89.5 807.4	744 5,680 1,492 1,094 1,853	126.5 2,499.1 1,880.1 1,095.1 1,111.9
II-1 II-2 II-3 III-1 III-2 III-3	3,488 7,070 390 70 1,246 960	854.5 2,199.7 243.6 19.8 475.5 553.4	2,037 3,063 730 2,452 1,693 320	346.2 1,347.6 920.1 490.5 1,015.7 323.1	2,218 1,648 638 316 2,116 2,594	543.4 512.7 398.4 89.5 807.4 1,495.4	744 5,680 1,492 1,094 1,853 820	126.5 2,499.1 1,880.1 1,095.1 1,111.9 827.9
II-1 II-2 II-3 III-1 III-2 III-3 IV-1	3,488 7,070 390 70 1,246 960 424	854.5 2,199.7 243.6 19.8 475.5 553.4 133.9	2,037 3,063 730 2,452 1,693 320 4,635	346.2 1,347.6 920.1 490.5 1,015.7 323.1 1,024.0	2,218 1,648 638 316 2,116 2,594 2,046	543.4 512.7 398.4 89.5 807.4 1,495.4 646.1	744 5,680 1,492 1,094 1,853 820 403	126.5 2,499.1 1,880.1 1,095.1 1,111.9 827.9 88.6
II-1 II-2 II-3 III-1 III-2 III-3	3,488 7,070 390 70 1,246 960	854.5 2,199.7 243.6 19.8 475.5 553.4	2,037 3,063 730 2,452 1,693 320	346.2 1,347.6 920.1 490.5 1,015.7 323.1	2,218 1,648 638 316 2,116 2,594	543.4 512.7 398.4 89.5 807.4 1,495.4	744 5,680 1,492 1,094 1,853 820	126.5 2,499.1 1,880.1 1,095.1 1,111.9 827.9

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Table 25 (Continued)

		Fish	eggs			Fish	larvae	<u>,                                     </u>
	(Aug./S	ept. 1975)	(Sept.	1976)	(Aug./Se	ept. 1975)	(Sept	. 1976)
Transect- station	No. per 1,000 m <sup>3</sup>	No. under 10 m <sup>2</sup>	No. per 1,000 m3	No. under 10 m <sup>2</sup>	No. per 1,000 m3	No. under 10 m <sup>2</sup>	No. per 1,000 m <sup>3</sup>	No. under 10 m <sup>2</sup>
I-1	4,018	589.4	2,947	383.1	6,264	918.8	4,350	565.5
I <b>-</b> 2	2,472	1,079.2	95	35.1	3,102	1,354.3	4,420	1,635.4
I <b>-</b> 3	334	279.6	318	410.4	2,326	151.0	365	470.8
II-1	2,388	1,272.2	854	145.2	1,404	748.0	2,453	417.0
II-2	364	121.5	217	95.7	4,520	1,508.1	1,213	533.5
II <b>-</b> 3	328	414.4	260	327.6	1,286	1,624.6	2,976	3,749.8
III-1	2,866	799.3	709	141.8	2,587	720.1	8,903	1,780.6
III-2	290	143.9	1,430	858.1	2,384	1,183.2	3,389	2,033.3
III-3	380	405.1	358	361.7	1,370	1,460.5	2,093	2,114.0
IV-1	6,894	1,408.3	3,792	834.1	1,750	357.5	362	79.7
IV-2	2,286	1,157.8	98	41.0	4,136	2,094.7	1,098	461.3
IV-3	506	395.7	413	355.0	3,374	2,638.6	2,154	1,852.5

 $<sup>\</sup>underline{1}/$  Day and night samples combined.

 $<sup>\</sup>frac{2}{2}$ / 333 $\mu$  and 505 $\mu$  samples combined.

Table 26. Comparison of fish egg and larval abundance from bongo samples at selected EPA, MARMAP and BLM stations from May 1976 to December 1976.

Station/		***************************************	No. unde	r 10 m <sup>2</sup>		
Transect-	May		Au	gust	Dec	ember
station	Eggs	Larvae	Eggs	Larvae	Eggs	Larvae
(EPA)						
A	894.2 1/	30.9	145.8	300.0	15.2	3.0
D D	1,189	367.1	28.7	1,591.0	370.4	42.8
E E	1,081.8	38.6	778.5	130.3	9.6	100.6
		_	• • •		81.2	105.6
H	1,675.6	27.9	1,717.5	122.7	01.2	105.0
(MARMAP)						
VII-1	130.7	10.1	499.1	418.0	0.0	30.8
VII-2	1,181.9	367.1	28.7	1,591.0	370.4	42.8
VI-l	158.3	143.1	2,692.7	1,285.7	6.3	41.0
V-1	725.6	205.3	387.7	356.2	124.6	96.4
		· -				-
(BLM)	May/J	une	Sept	tember	Dec	ember
IV-1	1,024.0	88.6	834.1	79.7		
III-l	490.5	1,095.1	141.8	1,780.6		
II-l	346.2	126.5	95.7	417.0	253.2	157.9
I-1	292.7	270.7	383.0	565.5		
	- '	· ·				

 $<sup>\</sup>underline{1}$ / Egg and larval numbers combined for 333 $\mu$  and 505 $\mu$  samples.

Table 27. Comparison of selected zooplankter numbers with ichthyoplankters taken during same cruises in 1976.

Mark of an		<u></u>	50µ)		(333µ)	(505µ)
Mesh size:		(2	<b>Συμ</b> /	Gastropoda		Fish
Transect-	Copepoda	Amphipoda	Polychaeta	larvae	Fish eggs	larvae
station	No./m3	No./m3	No./m3	No./m <sup>3</sup>	No./m <sup>3</sup>	$No./m^3$
			- December/			
I-1	459.8	1.5	12.1	4.1	0.2	0.1
I <b>-</b> 2	637.5	25.6	4.6	11.8	1.4	1.0
I <b>-</b> 3	714.6	6.7	0.6	10.9	0.6	0.2
II-l	1,443.1	23.7	8.5	20.6	0.8	0.1
II <b>-</b> 2	717.5	18.8	6.1	17.1	1.7	2.2
II <b>-</b> 3	655.4	6.2	1.9	33.0	1.7	0.3
III-l	857.4	12.2	2.6	9.0	0.3	0.1
III <del>-</del> 2	494.4	3.9	2.6	9.1	1.5	0.3
III-3	713.3	0.9	0.6	4.3	0.9	0.3
IV-1	3,042.7	67.0	1.7	15.0	0.6	0.2
IV-2	746.0	18.9	1.8	23.7	1.1	1.4
IV-3	368.0	3.1	3.8	9.4	1.0	0.3
	2 105 5		ise 2 - Marc		2 0	0.7
II-1	1,435.5	8.0	12.0	428.7	3.8	0.7
II-2	516.6	33.7	8.6	12.1	11.1	1.5
II <b>-</b> 3	690.4	22.6	2.0	17.0	1.0	1.8
<b></b> 3	0.01.5.0		ise 3 - Apri		2 0	0.7
II-l	2,045.2	2.6	3.2	0.5 28.4	3.0	0.7 2.5
II-2	884.1	16.5	0.6	18.3	5.3 0.8	
II-3	485.4	11.4	1.6		0.0	1.5
<b>T</b> 1	ا ۱۰	39.1	se 4 - May/J 5.0	190.8	2.3	2.1
I-1	925.4 1,829.6	149.1	5.2	964.2	2.5	5.2
I-2 I-3	419.9	3.5	4.4	21.2	0.2	1.5
1-3 II-1	978.7	13.9	2.2	49.3	2.0	0.7
II <b>-</b> 2	1,822.4	84.5	5.5	175.8	3.1	5.7
II-3	340.9	4.0	2.6	9.1	0.7	1.5
III-1	744.5	68.9	4.2	77.6	2.5	1.1
III <b>-</b> 2	1,252.0	23.1	4.4	38.2	1.7	1.9
III-3	889.5	6.1	4.3	26.9	0.3	0.8
IV-1	1,466.0	9.7	5.9	121.8	4.6	0.4
IV-2	682.3	15.6	1.7	31.9	0.7	2.0
IV-3	342.1	9.7	2.2	8.2	0.3	1.1
	. 3.272		uise 5 - Jul			
II-l	1,118.2	10.6	5.0	48.6	0.6	2.2
II-2	652.0	27.0	2.1	51.6	1.4	3.1
II-3	216.4	2.9	3.3	39.3	0.2	2.9
•		Cru	ise 6 - Augu			
II-1	484.6	8.5	4.8	503.1	0.3	3.7
II <b>-</b> 2	338.8	2.9	1.9	111.3	2.7	3.0
II <b>-</b> 3	454.4	15.1	2.3	23.0	0.2	3.8
			e 7 - Septem			
I-1	483.2	33.8	1.5	24.2	2.9	4.4
I <b>-</b> 2	686.7	30.1	6.1	168.1	0.1	4.4
I <b>-</b> 3	565.3	1.6	47.0	101.7	0.3	0.4

Table 27. (Continued)

Mesh size:		(2	50μ)	0	(333µ)	(505µ)
Transect- station	Copepoda No./m <sup>3</sup>	Amphipoda No./m <sup>3</sup>	Polychaeta No./m <sup>3</sup>	Gastropo larvae No./m <sup>3</sup>	Fish eggs No./m <sup>3</sup>	Fish larvae No./m <sup>3</sup>
II-1 II-2 II-3 III-1 III-2 III-3	694.5 241.9 624.6 4,156.8 1,054.6 1,272.9	3.7 2.7 13.2 264.3 23.3 35.1	6.8 0.5 3.3 126.1 2.8 12.2	87.8 11.7 21.9 125.3 89.2 112.5	0.9 0.2 0.3 0.7 1.4 0.4	2.5 1.2 3.0 9.0 3.4 2.1
IV-1 IV-2 IV-3	1,175.5 451.2 399.9	8.9 8.1 1.4 Cruis	3.1 1.6 6.7 e 8 - Novemb	83.1 47.1 22.2	3.8 0.1 0.4	0.4 1.1 2.2
II-1 II-2 II-3	1,361.6 830.8 473.0	6.2 13.3 10.7 Cruis	8.9 7.8 1.2	30.9 32.0 15.0	0.2 0.3 0.1	1.4 8.2 3.6
II-1 II-2 II-3	1,970.8 1,158.7 644.5	8.8 14.7 2.1	7.0 12.6 2.8	32.0 69.5 20.1	1.5 0.4 0.4	0.9 3.6 1.7

Table 28. Temperature and salinity ranges for the ten most abundant families from all bongo collections during 1976.

	1 0 July 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	·····	Salinity	Temperature
Cruise	Taxon	No.	range(°/oo)	range(°C)
1	MYCTOPHIDAE	43	34.4-36.5	16.3-21.1
				16.3-21.1
	Benthosema suborbitale	95 4	36.3-36.5	17.1-20.6
	Ceratoscopelus sp.		36.2-36.5	16.3-21.1
	Ceratoscopelus maderensis	15 10		18.4-21.1
	Ceratoscopelus warmingi	144	32.3-36.5	14.8-21.1
	Diaphus sp.	144	36.2-36.5	16.3-21.1
	Diogenichthys atlanticus	72		16.3-21.1
	Hygophum sp.	10	36.2-36.5	16.3-20.6
	Hygophum reinhardti	104		16.3-21.1
	Lampanyctus sp.			
	Myctophum sp.	48	36.0-36.5	16.3-21.1
	Myctophum asperum	1	36.2-36.2	20 <b>.6</b> –20.6
	Myctophum obtusirostre	17		16.3-20.7
	Notolychnus valdiviae	20		16.3-20.6
	Notoscopelus sp. BREGMACEROTIDAE	6	36.2-36.5	19.0-21.1
	Bregmaceros sp.	43	36.2-36.5	16.3-21.1
	Bregmaceros atlanticus	542	32.3-36.5	14.9-21.1
	CLUPEIDAE	390	31.7-36.1	14.0-20.7
	Brevoortia patronus	15	31.7-36.1	14.0-20.0
	Etrumeus teres	76	32.3-36.4	14.8-21.1
	GOBIIDAE	362	32.3-36.5	14.8-21.1
	CARANGIDAE	18	32.3-35.9	14.8-20.7
	Trachurus lathami	267	32.5-36.5	14.9-20.7
	GONOSTOMATIDAE	27	36.2-36.2	20.7-20.7
	Cyclothone sp.	48	32.5-36.5	14.9-21.1
	Gonostomus atlanticum	7	36.2-36.4	20.0-21.1
	Gonostomus elongatum	2	36.2-36.5	16.3-20.6
	Maurolicus sp.	16	36.2-36.5	16.3-21.1
	Vinciguerria sp.	78	35.4-36.5	16.3-21.1
	SERRANIDAE	70	32.3-36.5	14.8-21.1
	Centropristis sp.	20	32.3-36.2	14.8-20.7
	Diplectrum sp.	3	36.2-36.5	19.0-20.6
	STROMATEIDAE	15	32.5-36.5	14.9-20.6
	Cubiceps pauciradiatus		36.2-36.5	17.1-21.1
	Peprilus burti	5 65	31.7-36.5	14.0-20.7
	BOTHIDAE	73	32.3-36.5	14.8-21.1
	Bothus ocellatus	ĺ	36.2-36.5	19.0-20.6
	Paralichthys sp.	6	31.8-34.7	14.2-19.4
	SYNODONTIDAE	14	34.4-36.5	17.3-21.1
	Saurida sp.	56	32.5-36.1	14.9-20.7
	Synodus foetens	11	34.4-36.5	17.1-20.6
2	CLUPEIDAE	1,021	31.8-36.5	17.6-21.2
	Brevoortia sp.	1	35.4-36.0	20.3-20.8
	Brevoortia patronus	3		17.6-20.8
	Etrumeus teres	75	_	20.3-20.8
	Sardinella anchovia	1	36.2-36.4	19.1-21.0

Table 28. (Continued)

			Salinity	Temperature
Cruise	Taxon	No.	range(°/oo)	
2	BREGMACEROTIDAE			•
	Bregmaceros sp.	35		18.1-21.2
	Bregmaceros atlanticus	974		18.1-21.2
	MYCTOPHIDAE	141		18.1-21.2
	Benthosema suborbitale	19		18.1-21.0
	Ceratoscopelus sp.	32	35.4-36.4	19.1-21.0
	Ceratoscopelus maderensis	6	35.4-36.0	20.3-20.8
	Ceratoscopelus warmingi	28		19.1-21.2
	Diaphus sp.	321		18.1-21.2
	Diogenichthys atlanticus	12		18.1-20.8
	Hygophum sp.	31	35.4-36.5	18.1-21.2
	Hygophum reinhardti	16		18.1-21.2
	Lampanyctus sp.	12		18.1-21.2
	Myctophum sp.	13	36.2-36.4	18.1-21.2
	Notolychnus valdiviae	5	36.2-36.4	19.1-21.0
	Novoscopelus sp.	6	36.2-36.5	18.1-20.8
	GOBIIDAE	263	35.4-36.5	18.1-21.2
	GONOSTOMATILAE	١.	05.5.0/.5	70 7 07 0
	Cyclothone sp.	14	35.7-36.5	18.1-21.2
	Maurolicus sp.	191	35.7-36.5	18.1-21.2
	Vinciguerria sp.	15	35.7-36.5	18.1-21.2
	SYNODONTIDAE:	2 88	35.7 <b>-</b> 36.5	18.1-21.2
	Saurida sp.	26	35.8-36.5	19.1-21.2
	Synodus sp.	40	35.7-36.5	18.1-21.2
	Synodus foetens CARANGIDAE	3	27.9-33.9	17.6-18.5
		98	35.7-36.5	18.1-21.2
	Trachurus lathami ENGRAULIDAE	69	27.9-36.5	17.6-21.0
		13	35.7-36.4	19.8-21.2
	Engraulis eurystole SERRANIDAE	62	35.7-36.5	18.1-21.2
	Anthias sp.	1	35.7-36.0	20.3-20.8
	Centropristis sp.	5	27.9-36.0	17.6-20.8
	Diplectrum sp.	34	35.7-36.5	18.1-21.2
	Hemanthias vivanus	1		19.1-21.0
	TRIGLIDAE	_	37.0-30.7	17.1.21.0
	Prionotus sp.	67	27.9-36.5	18.1-21.2
	TITOHOUGE Sp.	01	21.7 30.7	2012 2212
3	CLUPEIDAE	1,147	28.3-36.5	18.1-21.9
<b>J</b>	Brevoortia patronus	2	_	18.5-20.4
	Etrumeus teres	333	33.4-36.5	18.9-21.2
	Sardinella sp.	1		
	GOBIIDAE	775	28.3-36.5	18.1-21.9
	SYNODONTIDAE	75		18.1-21.9
	Saurida so.	413		18.1-21.9
	Synodus sp.	58		18.1-21.9
	Synodus foetens	145		18.9-21.2
	BREGMACEROTIDAE	,	331 3417	/
	Bregmaceros sp.	10	33.4-36.4	18.1-21.9
	Bregmaceros atlanticus	558		18.1-21.9
		//-	55. 5.7	<b></b> /

Table 28. (Continued)

Cruise	Taxon	No.	Salinity range(°/oo)	Temperature range(°C)
CIUISC	Taxon		Tange ( 700)	range( o)
3	MYCTOPHIDAE	81	34.2-36.5	18.9-21.2
J	Benthosema suborbitale	2	35.6-36.4	18.1-21.9
	Ceratoscopelus maderensis	14	35.6-36.5	18.9-21.2
	Ceratoscopelus warmingi	19		18.9-21.2
	Diaphus sp.	376	34.8-36.5	18.1-21.9
	Diogenichthys atlanticus	710	35.6-36.4	18.1-21.9
	Hygophum sp.	14	35.6-36.5	18.1-21.9
	Hygophum reinhardti	4	34.8-36.5	18.1-21.9
	Lampanyctus sp.	11	35.6-36.5	18.1-21.9
		8	37.0-30.7	10.1 21.7
	Myctophum sp.	1	35.6-36.4	18.1-21.9
	Notolychnus valdiviae SERRANIDAE	258	33.4-36.5	18.1-21.9
		2	33.4-30.7	10.1-21.9
	Anthias sp.	32	34.2 <b>-</b> 36.5	18.1-21.9
	Centropristis sp.	85	34.8-36.5	18.1-21.9
	Diplectrum sp.			19.2-21.0
	CARANGIDAE	65	33.4-36.1	19.2-21.0
	Trachinotus sp.	1	a), 9 ac F	19 3 03 0
	Trachurus lathami	279	34.8-36.5	18.1-21.9
	TRIGLIDAE	3	28.3-36.5	18.1-21.9
	Prionotus sp.	127	20.3-30.5	10.1-21.9
	MUGILIDAE	2.21.	01. 0. 06. 5	10 7 07 0
	Mugil sp.	114	34.2-36.5	18.1-21.9
	CYNOGLOSSIDAE	7.07	22 1 26 5	10 7 07 0
	Symphurus sp.	101	33.4-36.5	18.1-21.9
4	ENGRAULIDAE	1,669		17.9-27.6
	Anchoa sp.	439	30.1-36.7	17.9-27.6
	Engraulis eurystole BREGMACEROTIDAE	79	30.1-36.7	17.9-27.6
	Bregmaceros sp.	96	30.9-36.7	17.9-26.8
	Bregmaceros atlanticus	1,372	_	17.9-26.8
	GOBIIDAE	1,145	30.1-36.7	17.9-27.6
	BOTHIDAE	181	30.1-36.7	17.9-27.6
	Bothus sp.	25	30.9-36.7	17.9-26.8
	Bothus ocellatus	49	30.1-36.4	17.9-27.6
	Cyclopsetta sp.	7	30.9-36.3	20.0-26.6
	Syacium sp.	537	_	17.9-27.6
	Syacium gunteri	90	30.1-36.7	17.9-27.6
	MICRODESMI DAE	)0	20.1-20.1	<b>-1.7</b> -1.0
	Microdesmus sp.	793	30.1-36.7	17.9-27.6
	MYCTOPHIDAE	55	31.7-36.7	17.9-26.6
	Benthosema suborbitale	60	30.9-36.4	18.6-26.6
	Ceratoscopelus maderensis	38	32.7-36.7	17.9-26.5
		21	31.1-36.7	17.9-26.8
	Ceratoscopelus warmingi	300	31.1-36.7	17.9-26.8
	Diaphus sp.	82	30.9-36.7	17.9-26.6
	Diogenichthys atlanticus	66	31.1-36.7	17.9-26.8
	Hygophum sp.	50	31.1-36.7	17.9-26.8
	Hygophum reinhardti	6	32.7-36.7	17.9-26.4
	Lampadena sp.	O	25.1-20.1	11.3-20.4

Table 28. (Continued)

Cruise	Taxon	No.	Salinity range(°/oo)	Temperature range(°C)
1.	_			
4	Lampanyctus sp.	43	31.1-36.7	17.9-26.8
	Myctophum sp.	26	31.1-36.7	17.9-26.8
	Myctophum obtusirostre	5	31.1-36.7	17.9-26.8
	Notolychnus valdiviae	29	31.1-36.4	17.9-26.8
	Notoscopelus sp.	12	31.1-36.7	17.9-26.8
	CARANGIDAE	4	30.9-35.5	21.7-26.9
	Caranx sp.	496	30.1-36.7	17.9-27.6
	Chloroscombris chrysurus	13	30.1-35.3	21.7-27.6
	Decapterus punctatus	8	31.1-36.4	17.9-26.8
	Selene vomer	63	30.1-36.4	17.9-27.6
	Trachinotus sp.	1	31.2-36.3	20.0-26.6
	Trachurus lathami	1	30.1-30.8	26.9-27.6
	SCOMBRIDAE	27	30.9-36.7	17.9-26.4
	Auxis sp.	159		17.9-27.6
	Euthynnus alletteratus	171	30.1-36.4	17.9-27.6
	Katsuwonus pelamis	10	31.1-36.7	20.0-26.8
	Scomberomorus cavalla	83	30.1-36.4	17.9-27.6
	Scomberomorus maculatus	8	30.1-36.4	20.4-27.6
	Thunnus sp.	1	32.7-36.7	20.0-25.9
	Thunnus atlanticus	9	31.1-36.4	17.9-26.8
	Thunnus thynnus SERRANIDAE	16	31.1-36.7	20.0-26.8
		57	31.1-36.7	17.9-26.8
	Anthias sp.	10	31.1-36.4	17.9-26.8
	Anthias tenuis Diplectrum sp.	2 316	32.2-36.1 30.1-36.7	22.2-25.8
	Hemanthias vivanus	1	33.5-36.4	17.9-27.6 17.9-26.4
	Liopropoma sp.	1	32.7-36.7	20.0-25.9
	Serraniculus pumilio	22	31.2-35.3	21.7-26.9
	SYNODONTIDAE	19	30.9-36.3	20.0-26.6
	Saurida sp.	220	30.9-36.7	17.9-26.6
	Synodus sp.	27	30.9-36.3	20.0-26.6
	Synodus foetens	2	J0.9-J0.J	21.1-26.4
	by House Toesemb	_		21.1-20.4
5	ENGRAULIDAE	2,022	34.1-36.4	18.2-27.8
	Anchoa sp.	50	34.1-36.4	18.2-27.8
	Engraulis eurystole BREGMACEROTIDAE	194	34.1-36.4	18.2-27.8
	Bregmaceros sp.	27	35.2-36.4	18.2-27.7
	Bregmaceros atlanticus	802	34.1-36.4	18.2-27.8
	BOTHIDAE	109		18.2-27.8
	Bothus sp.	- 6	35.1-36.4	18.2-27.6
	Bothus ocellatus	90	34.1-36.4	18.2-27.8
•	Cyclopsetta sp.	8	35.1-36.4	18.2-27.7
	Syacium sp.	479		18.2-27.8
	Syacium gunteri	33	34.1-36.4	18.2-27.8
	GOBIIDAE	537	34.1-36.4	18.2-27.8

Table 28. (Continued)

	_		Salinity	Temperature
Cruise	Taxon	No.	range(°/oo)	range(°C)
5	MYCTOPHIDAE	105	35.1-36.4	18.2-27.7
-	Benthosema suborbitale	7		
	Bolinichthys sp.	i		
	Ceratoscopelus maderensis	33	35.1-36.4	18.2-27.7
	Ceratoscopelus warmingi	39	35.1-36.3	20.9-27.6
	Diaphus sp.	147	35.1-36.4	18.2-27.7
	Diogenichthys atlanticus	20		
	Hygophum sp.	22	35.1-36.4	18.2-27.7
	Hygophum reinhardti	30	35.1-36.3	20.9-27.6
	Lampadena sp.	4	35.1-36.4	18.2-27.7
	Lampanyctus sp.	20	35.1-36.4	18.2-27.7
	Myctophum sp.	15	35.1-36.4	18.2-27.7
	Myctophum obtusirostre	8	35.1-36.2	22.6-27.6
	Notolychnus valdiviae	28	35.1-36.3	20.9-27.6
	Notoscopelus sp.	4	35.1-36.2	22.6-27.6
	SYNODONTIDAE	6	35.2-36.4	18.2-27.7
	Saurida sp.	304		18.2-27.7
	Synodus sp. GONOSTOMATIDAE	22	34.1-36.4	18.2-27.8
	Cyclothone sp.	138	35.1-36.4	18.2-27.7
	Maurolicus sp.	9	35.1-36.3	20.9-27.6
	Vinciguerria sp.	38		18.2-27.7
	SCOMBRIDAE	19		22.6-27.6
	Auxis sp.	19		20.9-27.6
	Euthynnus alletteratus	44		18.2-27.8
	Scomberomorus cavalla	53	34.6-36.4	18.2-27.8
	Scomberomorus maculatus	8	34.1-35.9	22.8-27.8
	Thunnus sp.	1	35.5-35.9	22.8-27.1
	Thunnus atlanticus	24	35.1-36.4	18.2-27.6
	MICRODESMIDAE			
	Microdesmus sp.	110	34.1-36.4	18.2-27.8
	CARANGIDAE	3	35.1-36.3	20.9-27.6
	Caranx sp.	61	35.1-36.4	18.2-27.7
	Chloroscombrus chrysurus	22	34.1-35.3	25.4-27.8
	Decapterus punctatus	2	35.2-36.4 35.1-36.2	18.2-27.7 22.6-27.6
	Oligoplites saurus Selene vomer		34.6-36.3	
	Vomer setapinnis	1		20.9-27.6
	vomer sedapimirs		37.1-30.3	20.9-21.0
6	ENGRAULIDAE	2,510	34.8-38.1	17.4-29.7
	Anchoa sp.	180		17.4-29.7
	Engraulis eurystole	133		17.4-29.7
	GOBIIDAE	2,209	34.8-38.1	17.4-29.7
	BOTHIDAE	316		17.4-29.7
	Bothus sp.	55		
	Bothus ocellatus	99		
	Cyclopsetta sp.		34.8-37.3	
	Syacium sp.	-	34.8-38.1	
	Syacium gunteri	9	34.8-36.9	19.6-29.3

Table 28. (Continued)

a .			Salinity	Temperature
Cruise	Taxon	No.	range(°/oo)	range(°C)
6	CANOLONIEL DA E	65	34.8-37.1	17.4-29.7
O	SYNODONTIDAE	474	34.8-37.3	17.4-29.7
	Saurida sp.	111	34.8-37.3	17.4-29.7
	Synodus sp. BREGMACEROTIDAE	777	34.0-31.3	11.4-29.1
	Bregmaceros sp.	15	35.3-37.1	17.4-29.7
	Bregmaceros atlanticus	599 -	34.8-37.1	17.4-29.7
	CLUPEIDAE	265	34.8-38.1	17.4-29.7
	Harengula jaguana	92	34.8-38.1	17.4-29.7
	Opisthonema oglinum	38	34.8-37.3	17.4-29.7
	Sardinella anchovia	2		
	SCOMBRIDAE	227	34.8-37.3	17.4-29.7
	Auxis sp.	19	34.8-37.1	17.4-29.7
	Euthynnus a letteratus	24	34.8-38.1	17.4-29.7
	Katsuwonus pelamis	1	34.8-36.4	20.5-29.1
	Scomberomorus cavalla	41	34.8-37.3	17.4-29.7
	Scomberomorus maculatus	12	34.8-38.1	19.6-29.3
	Thunnus sp.	1	34.8-36.4	20.5-29.1
	Thunnus atlanticus	2		
	CYNOGLOSSIDAE	13	34.8-36.6	19.6-29.2
	Symphurus sp.	286	34.8-38.1	17.4-29.7
	MICRODESMIDAE	35	35.9-38.1	23.4-28.7
	Microdesmus sp.	214	34.8-38.1 34.8-38.1	17.4-29.7 17.4-29.7
	OPHICHT'HIDAE	210	34.0-30.1	11.4-29.1
7	GOBIIDAE	3,704	33.3-37.5	17.0-29.3
•	ENGRAULIDAE	2,467	33.3-37.5	17.0-29.3
	Anchoa sp.	192	33.3-37.3	17.0-29.3
	Engraulis eurystole	154	33.3-37.5	17.0-29.3
	BREGMACEROTIDAE		_	•
	Bregmaceros sp.	13	35.8-37.3	17.0-28.9
	Bregmaceros atlanticus	2,543		17.0-28.9
	BOTHIDAE	175	33.3-37.5	17.0-29.3
	Bothus sp.	402	33.3-37.5	17.0-29.3
	Bothus ocellatus	558	33.3-37.5	17.0-29.3
	Cyclopsetta sp.	56	34.7-37.5	17.0-29.3
	Paralichthys sp.	2		21.4-28.8
	Syscium sp.	1,151		17.0-29.3
	Syacium gunteri CYNOGLOSSIDAE	31	33.3-37.3	17.0-29.0
	Symphurus sp.	742	33.3-37.5	17.0-29.3
	Symphurus civitatus	48	35.7-37.5	17.7-28.8
	Symphurus plagiusa	4	35.7-37.5	17.7-28.8
	MYCTOPHIDAE	35	35.7-37.5	17.0-28.9
	Bolinichthys sp.	3	35.9-37.3	19.5-28.9
	Ceratoscopelus sp.	21	_	17.0-28.9
	Ceratoscopelus maderensis	5		
	Ceratoscopelus warmingi	12		
	Diaphus sp.	536		17.0-28.9

Table 28 (Continued)

	_	37	Salinity	Temperature
Cruise	Taxon	No.	range(°/oo)	range(°C)
7	Tampadana an	5	35.8-37.0	19.5-28.9
7	Lampadena sp.	5 5	35.9-37.3	17.0-28.8
	Myctophum sp.	3	35.7-36.9	19.4-28.6
	Myctophum obtusirostre SYNODONTIDAE	3 47	34.7-37.5	17.0-29.0
	Saurida sp.	391	34.7-37.5	17.0-29.0
	Synodus sp.	49	34.7-37.2	17.0-29.0
	Trachinocephalus myops	1	36.1-36.8	19.5-28.9
	SCOMBRIDAE	101	33.3-37.5	17.0-29.3
	Auxis sp.	85	33.3-37.5	17.0-29.3
	Euthynnus alletteratus	37	35.7-37.5	17.0-29.3
	Katsuwonus pelamis	2	35.7-37.5	17.7-28.8
	Scomberomorus cavalla	197	34.7-37.5	17.0-29.3
	Scomberomorus maculatus	19	33.3-36.9	19.4-29.3
	Thunnus sp.	22	35.7-37.5	17.0-29.3
	Thunnus atlanticus	2	35.7-37.5	17.7-28.9
	CARANGIDAE	276	33.3-37.5	17.0-29.3
	Caranx sp.	1	35.7-36.9	21.4-28.8
	Caranx crysos	ī	35.8-37.0	20.7-28.8
	Chloroscombrus sp.	16	33.3-33.6	28.5-28.7
	Chloroscombrus chrysurus	47	33.3-37.0	17.7-29.3
	Decapterus punctatus	23	35.7-37.5	17.7-28.9
	Oligoplites saurus	1	35.7-37.5	17.7-28.8
	Selene vomer	3		
	Trachinotus sp.	ı	35.8-37.0	20.7-28.8
	Vomer setapinnis	15	34.7-37.5	17.7-29.3
	SCIAENIDAE	103	33.3-36.7	27.5-29.1
	Cynoscion sp.	127	33.3-36.4	28.5-29.3
	Cynoscion arenarius	1		
	Cynoscion nothus	78	33.3-37.5	17.0-29.1
	Larimus fasciatus	5	35.9-36.4	29.1-29.3
	Menticirrhus sp.	10	33.3-36.4	28.5-29.3
	Sciaenops ocellata	1	33.3-33.6	28.5-28.7
8	GOBIIDAE	5,045	31.8-36.5	14.0-24.3
	BREGMACEROTIDAE			
	Bregmaceros sp.	7	35.9-36.5	16.7-24.3
	Bregmaceros atlanticus	1,228		14.0-24.3
	SCIAENIDAE	569		14.0-24.3
	Cynoscion arenarius	6	35.9-36.5	14.0-24.3
	Larimus fasciatus	5	31.8-36.5	14.0-24.3
	Leiostomus xanthurus	11	33.3-36.0	20.8-23.4
	Micropogon sp.	111	33.3-35.7	20.8-23.2
	Micropogon undulatus	177		14.0-24.3
	BOTHIDAE	275		14.0-24.3
	Bothus sp.	27		14.0-24.3
	Bothus ocellatus	52	33.3-36.5	14.0-24.3
	Cyclopsetta sp.	1		20.2-23.9
	Paralichthys sp.	5	31.8-35.7	20.1-23.2
	Syacium sp.	66		14.0-24.3
	Syacium gunteri	3	33.3-36.5	20.2-23.9

Table 28. (Continued)

			Salinity	Temperature
Cruise	Taxon	No.	range(°/oo)	range(°C)
	<del></del>			
8	CONGRIDAE	163	35.7-36.5	14.0-24.3
	CYNOGLOSSIDAE	_		
	Symphurus sp.	160	33.3-36.5	14.0-24.3
	OPHIDIIDAE	93	33.3-36.5	14.0-24.3
	CLUPEIDAE	48	31.8-36.0	20.1-23.4
	Brevoortia sp.	25	31.8-33.1	20.1-20.8
	Sardinella anchovia	13	31.8-35.7	20.1-23.2
	SYNODONTIDAE	5	35.7-36.5	14.0-24.3
	Saurida sp.	69	33.3-36.5	14.0-24.3
	Saurida brasiliensis	4	35.7-36.0	23.2-23.4
	Synodus sp.	i	33.3-35.7	20.8-23.2
	MORINGUIDAE		33.3-37.1	20.0 25.2
	Neoconger mucronatus	73	33.3-36.5	14.0-24.3
	neoconger macronacus	13	22.2-20.7	14.0-24.3
9 .	GOBIIDAE	1,444	33.4-36.5	14.9-21.4
9	MUGILIDAE	_,,	33.4-30.7	T-4-7-5T-4
	Mugil sp.	978	35.6-36.5	15.0-21.4
	SCIAENIDAE	357		14.9-21.4
	Cynoscion arenarius	2	36.3-36.5	17.0-21.4
	Leiostomus xanthurus	181	35.6-36.5	15.0-21.4
	Micropogon undulatus	193	35.6-36.5	15.0-21.4
	BREGMACEROTIDAE	193	37.0-30.7	17.0-21.4
	Bregmaceros sp.	43	35.6-36.5	15.0-21.4
	Bregmaceros atlanticus	447		14.9-21.4
	CLUPEIDAE	140	33.4-36.5	14.9-21.4
	Brevoortia sp.	72	33.4-36.5	14.9-21.4
	Etrumeus teres	ī	35.6-36.0	18.9-19.4
	Sardinella anchovia	9	33.4-36.2	14.9-21.4
	STROMATEIDAE		330 1 301 -	
	Peprilus burti	202	33.4-36.5	14.9-21.4
	BOTHIDAE	89	33.4-36.5	14.9-21.4
	Bothus sp.	3	36.1-36.5	15.0-21.4
	Bothus ocellatus	2	36.1-36.5	15.0-21.4
	Monolene sp.	3	36.3-36.5	18.7-21.4
	Paralichthys sp.	42	33.4-36.5	14.9-21.4
	Syacium sp.	2	33.4-36.5	14.9-21.4
	MYCTOPHIDAE	<u>5</u> 6	35.6-36.5	15.0-21.4
	Benthosema suborbitale	î	36.3-36.5	18.7-21.4
	Bolinichthys sp.	ī	36.3-36.5	18.7-21.4
	Ceratoscopelus sp.	7	36.1-36.5	15.0-21.4
	Diaphus sp.	31	36.1-36.5	15.0-21.4
<b>:</b>	Hygophum sp.		36.1-36.5	15.0-21.4
	Hygophum reinhardti	9 3 8	36.1-36.5	15.0-21.4
	Myctophum sp.	Ä	36.1-36.5	15.0-21.4
	Myctophum obtusirostre	3	36.1-36.5	15.0-21.4
	Taaringichthys sp.	. 2	36.1-36.5	15.0-21.4
	- committee on one	•	3012-3017	->,+0+,+

Table 28. (Continued)

Cruise	Taxon	No.	Salinity range(°/oo)	Temperature range(°C)
9	GONOSTOMATIDAE	23	33.4-36.5	14.9-21.4
	Cyclothone sp.	2	36.3-36.5	17.0-21.4
	Gonostomus atlanticum	1	36.1-36.5	15.0-21.4
	Maurolicus sp.	72	35.6-36.5	15.0-21.4
	Polymetme corythaeola	1	36.3-36.5	17.0-21.4
	Vinciguerria sp.	5	36.1-36.5	15.0-21.4
	Vinciguerria nimbaria	2	36.3-36.5	17.0-21.4
	Vinciguerria poweriae	1	36.3-36.5	17.0-21.4
	CONGRIDAE			
	Ariosoma balearicum	3	36.1-36.5	15.0-21.4
	Hildebrandia sp.	90	35.6-36.5	15.0-21.4

Table 29. Comparison of BLM neuston and bongo larval abundance for top five families during 1976 by cruise in descending order of abundance.

	Neuston		Bongo	
		No. per		No. per
Cruise	Family - Genus Species	1,000 m <sup>3</sup>	Family - Genus Species	1,000 m
1	Mullidae	26	Clupeidae	1,165
_	Mullidae - Mullus sp.	981	Clupeidae - Brevoortia patronus	88
	Mullidae - Mullus auratus	716	Clupeidae - Etrumeus teres	<b>3</b> 52
	Total	1,723	Total	1,605
	Mugilidae - Mugil cephalus	834	Bregmacerotidae - Bregmaceros sp.	60
	Mugilidae - Mugil cerema	12	Bregmacerotidae - Bregmaceros atlanticus	1,195
	Total	846	Total	1,255
	Ophichthidae - Myrophis punctatus	82	Myctophidae	56
	Total	82	Myctophidae - Benthosema suborbitale	97
	Gadidae - Urophycis sp.	32	Myctophidae - Ceratoscopelus maderensis	5
	Gadidae - Urophycis regius	33	Myctophidae - Ceratoscopelus warmingi	12
	Total	65	Myctophidae - Diaphus sp.	233
	Clupeidae	33	Myctophidae - Diogenichthys atlanticus	17
	Clupeidae - Brevoortia sp.	6	Myctophidae - Hygophum sp.	105
	Clupeidae - Brevoortia patronus	24	Myctophidae - Hygophum reinhardti	13
	Total	63	Myctophidae - Lampanyctus sp.	164
			Myctophidae - Myctophum sp.	-66
			Myctophidae - Myctophum asperum	6
			Myctophidae - Myctophum obtusirostre	26
	·		Myctophidae - Notolychnus valdiviae	25
			Myctophidae - Notoscopelus sp.	3
			Total	828
			Gobiidae	802
			Total	802
			Carangidae	191
			Carangidae - Trachurus lathami	442
			Total	633

Table 29 (Continued)

	Neuston		Bongo	
		No. per		No. per
Cruise	Family - Genus Species	1,000 m <sup>3</sup>	Family - Genus Species	1,000 m <sup>3</sup>
2	Clupeidae	167	Clupeidae	1,537
	Clupeidae - Brevoortia sp.	2 <b>8</b> 8	Clupeidae - Brevoortia sp.	6
	Clupeidae - Etrumeus teres	8	Clupeidae - Brevoortia patronus	14
	Clupeidae - Opisthonema oglinum	148	Clupeidae - Etrumeus teres	118
	Total	611	Clupeidae - Sardinella anchovia	4
	Mugilidae	34	Total	1,679
	Mugilidae - Mugil cephalus	93	Bregmacerotidae - Bregmaceros sp.	29
	Mugilidae - Mugil curema	169	Bregmacerotidae - Bregmaceros atlanticus	1,368
	Total	296	Total	1,397
	Sciaenidae	99	Myctophidae	23
	Sciaenidae - Leiostomus xanthurus	16	Myctophidae - Benthosema suborbitale	25
	Sciaenidae - Menticirrhus sp.	8	Myctophidae - Ceratoscopelus sp.	193
	Sciaenidae - Micropogon undulatus	23	Myctophidae - Ceratoscopelus maderensis	6
	Total	146	Myctophidae - Ceratoscopelus warmingi	4
	Engraulidae	. 8	Myctophidae - <u>Diaphus</u> sp.	540
	Engraulidae - Anchoa sp.	6	Myctophidae - Diogenichthys atlanticus	21
	Engraulidae - Anchoa hepsetus	19	Myctophidae - Hygophum sp.	85
	Total	33	Myctophidae - Hygophum reinhardti	12
	Tetraodontidae - Sphoeroides sp.	20	Myctophidae - Lampanyctus sp.	35
	Total	20	Myctophidae - Myctophum sp.	21
			Myctophidae - Notolychnus valdiviae	16
			Myctophidae - Notoscopelus sp.	8
			Total	989
			Gobiidae	443
			Total	443
			Gonostomatidae - Maurolicus sp.	309
			Gonostomatidae - <u>Vinciguerria</u> sp.	25
			Total	334

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Table 29. (Continued)

	Neuston		Bongo	
		No. per		No. per
Cruise	Family - Genus Species	1,000 m <sup>3</sup>	Family - Genus Species	1,000 m <sup>3</sup>
2	God and don	331	Clupeidae	2,387
3	Sciaenidae	331	Clupeidae - Etrumeus teres	775
	Total	_		2
	Tetraodontidae - Sphoeroides sp.	. 30 38	Clupeidae - Sardinella sp. Total	3,164
	Total	8		27
	Clupeidae	12	Synodontidae	847
	Clupeidae - Brevoortia sp.	20	Synodontidae - Saurida sp.	
	Total		Synodontidae - Synodus sp.	139 228
	Exocoetidae	15	Synodontidae - Synodus foetens	1,241
	Total	15 le 8	Total	
	Engraulidae - Engraulis eurystol	<u>Le</u> 0 8	Gobiidae	1,210
	Total	Ö	Total	1,210
			Bregmacerotidae - Bregmaceros sp.	22
			Bregmacerotidae - Bregmaceros atlanticus	850
			Total	872
			Myctophidae	39
			Myctophidae - Benthosema suborbitale	2
			Myctophidae - Ceratoscopelus maderensis	
			Myctophidae - Ceratoscopelus warmingi	20
			Myctophidae - <u>Diaphus</u> sp.	693
			Myctophidae - Diogenichthys atlanticus	5
			Myctophidae - Hygophum sp.	19
			Myctophidae - Hygophum reinhardti	11
			Myctophidae - Lampanyctus sp.	8
			Myctophidae - Myctophum sp.	7
			Total	815

Table 29. (Continued)

	Neuston		Bongo	
Cruise	Family - Genus Species	No. per 1,000 m <sup>3</sup>	Family - Genus Species	No. per 1,000 m <sup>3</sup>
14	Mullidae	155	Engraulidae	5,249
	Mullidae - Mullus auratus	3,509	Engraulidae - Anchoa sp.	2,292
	Total	3,664	Engraulidae - Engraulis eurystole	169
	Exocoetidae	1,701	Total	7,710
	Exocoetidae - Hirundichthys rondeleti	927	Gobiidae	3,070
	Exocoetidae - Oxyporhamphus micropterus	5	Total	3,070
	Exocoetidae - Parexocoetus brachypterus	872	Bregmacerotidae - Bregmaceros sp.	60
	Total	3,505	Bregmacerotidae - Bregmaceros atlanticus	
	Clupeidae	507	Total	2,854
	Clupeidae - Harengula jaguana	34	Bothidae	442
	Clupeidae - Opisthonema oglinum	715	Bothidae - Bothus sp.	23
	Total	1,256	Bothidae - Bothus ocellatus	215
	Engraulidae	49	Bothidae - Cyclopsetta sp.	16
	Engraulidae - Anchoa hepsetus	823	Bothidae - Syacium sp.	1,316
	Engraulidae - Engraulis eurystole	14	Bothidae - Syacium gunteri	410
	Total	886	Total	2,422
	Mugilidae	136	Myctophidae	75
	Mugilidae - <u>Mugil</u> sp.	4	Myctophidae - Benthosema suborbitale	47
	Mugilidae - Mugil cephalus	54	Myctophidae - Ceratoscopelus maderensis	67
	Mugilidae - Mugil curema	154	Myctophidae - Ceratoscopelus warmingi	35
	Total	348	Myctophidae - <u>Diaphus</u> sp.	460
			Myctophidae - Diogenichthys atlanticus	70
			Myctophidae - Hygophum sp.	92
			Myctophidae - Hygophum reinhardti	100
			Myctophidae - Lampadena sp.	10
			Myctophidae - Lampanyctus sp.	45
			Myctophidae - Myctophum sp.	32
			Myctophidae - Myctophum obtusirostre	15
			Myctophidae - Notolychnus valdiviae	15
			Myctophidae - Notoscopelus sp.	25
			Total	1,088

Table 29. (Continued)

Cruise Family - Genus Species  1,000 m <sup>3</sup> Family - Genus Species  5 Clupeidae Clupeidae - Harengula jaguana Total Total Total Total Total Gerreidae - Sphoeroides sp. Total Gerreidae - Eucinostomus sp. Carangidae - Trachinotus carolinus Carangidae - Trachurus lathami  No. per 1,000 m <sup>3</sup> Family - Genus Species  10 Engraulidae  89 Engraulidae - Anchoa sp. Engraulidae - Engraulis eurystole 32 Total 32 Bregmacerotidae - Bregmaceros sp. 24 Bregmacerotidae - Bregmaceros at Total 22 Bothidae 33 Bregmacerotidae - Bregmaceros at Total 34 Total 35 Bothidae - Bothus sp. 36 Bothidae - Bothus ocellatus 37 Bothidae - Bothus ocellatus 38 Bothidae - Bothus ocellatus 39 Engraulidae - Bregmaceros sp. 30 Bothidae - Bothus ocellatus 30 Bothidae - Bothus ocellatus 31 Bothidae - Bothus ocellatus 32 Bothidae - Bothus ocellatus	No. per
Clupeidae - Harengula jaguana  Total  Mullidae - Mullus auratus  Total  Total  Total  Total  Total  Total  Total  Gerreidae - Eucinostomus sp.  Carangidae - Trachinotus carolinus  89 Engraulidae - Anchoa sp.  Engraulidae - Engraulis eurystole  32 Total  32 Bregmacerotidae - Bregmaceros sp.  Bregmacerotidae - Bregmaceros at.  Total  24 Total  25 Bothidae  Bothus sp.  Bothidae - Bothus ocellatus	1,000 m
Total  20 Bothidae - Syacium sp. Bothidae - Syacium gunteri Total  Gobiidae Total  Myctophidae Myctophidae - Benthosema suborbi Myctophidae - Ceratoscopelus mad Myctophidae - Ceratoscopelus war Myctophidae - Diaphus sp. Myctophidae - Diogenichthys atla Myctophidae - Hygophum sp. Myctophidae - Hygophum reinhardt Myctophidae - Lampadena sp. Myctophidae - Lampanyctus sp. Myctophidae - Myctophum sp. Myctophidae - Lampanyctus sp. Myctophidae - Myctophum sp. Myctophidae - Lampanyctus sp. Myctophidae - Myctophum sp.	1,000 m  3,046 152 185 3,383 p. 11 tlanticus 844 855 101 9 119 12 550 53 844 800 800 11 itale 6 derensis rmingi 66 100 anticus 11

119

120

Table 29. (Continued)

	Neuston		Bongo	
Cruise		No. per 1,000 m <sup>3</sup>	Family - Genus Species	No. per 1,000 m <sup>3</sup>
6	Clupeidae	14	Engraulidae	3,635
	Clupeidae - Harengula jaguana	103	Engraulidae - Anchoa sp.	257
	Total	107	Engraulidae - Engraulis eurystole	212
	Carangidae - Caranx sp.	2	Total	4,104
	Carangidae - Trachinotus sp.	2	Bothidae	406
	Carangidae - Trachinotus carolinus	4	Bothidae - Bothus sp.	29
	Carangidae - Trachurus lathami	17	Bothidae - Bothus ocellatus	147
	Total "	25	Bothidae - Cyclopsetta sp.	103
	Engraulidae - Anchoa hepsetus	11	Bothidae - Syacium sp.	1,931
	Engraulidae - Engraulis eurystole	7	Bothidae - Syacium gunteri	13
	Total	18	Total	2,629
	Hemiramphidae	4	Gobiidae	2,564
	Hemiramphidae - Hyporhamphus unifasciatus	14	Total	2,564
	Total	8	Synodontidae	67
	Gerreidae - Eucinostomus sp.	7	Synodontidae - Saurida sp.	600
	Total	7 -	Synodontidae - Synodus sp.	136
			Total	803
			Bregmacerotidae - Bregmaceros sp.	24
			Bregmacerotidae - Bregmaceros atlanticus	59 <b>7</b>
			Total	621

Table 29. (Continued)

	Neuston		Bongo	
Cruise	Family - Genus Species	No. per 1,000 m <sup>3</sup>	Family - Genus Species	No. per 1,000 m <sup>3</sup>
7	Exocoetidae	230	Engraulidae	8,263
•	Exocoetidae - Parexocoetus brachypterus	29	Engraulidae - Anchoa sp.	772
	Total	259	Engraulidae - Engraulis eurystole	334
	Engraulidae	161	Total	9,369
	Engraulidae - Anchoa hepsetus	22	Gobiidae	6,274
	Engraulidae - Engraulis eurystole	56	Total	6,274
	Total	239	Bothidae	337
	Carangidae	6	Bothidae - Bothus sp.	604
	Carangidae - Caranx sp.	2	Bothidae - Bothus ocellatus	1,017
	Carangidae - Chloroscombrus chrysurus	19	Bothidae - Cyclopsetta sp.	123
	Carangidae - Trachinotus falcatus	2	Bothidae - Paralichthys sp.	11
	Carangidae - Trachurus lathami	6	Bothidae - Syacium sp.	2,562
	Total	35	Bothidae - Syacium gunteri	119
	Hemiramphidae	16	Total	4,773
	Hemiramphidae - Hemiramphus brasiliensis	12	Bregmacerotidae - Bregmaceros sp.	17
	Hemiramphidae - Hemiramphus unifasciatus	5	Bregmacerotidae - Bregmaceros atlanticus	3,784
	Total	33	Total	3,801
	Gerreidae - Eucinostomus sp.	25	Cynoglossidae - <u>Symphurus</u> sp.	1,190
	Total	25	Cynoglossidae - Symphurus civitatus	153
			Cynoglossidae - Symphurus plagiusa	3
			Total	1,346

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Table 29. (Continued)

	Neuston		Bongo	
Cruise	Family - Genus Species	No. per 1,000 m <sup>3</sup>	N	lo. per .,000 m <sup>3</sup>
8	Clupeidae	211	Gobiidae	9,907
Ŭ	Clupeidae - Brevoortia sp.	708	Total	9,907
	Total	919	Sciaenidae	1,260
	Engraulidae	8	Sciaenidae - Cynoscion arenarius	12
	Engraulidae - Anchoa hepsetus	32	Sciaenidae - Larimus fasciatus	5
	Engraulidae - Engraulis eurystole	55 55	Sciaenidae - Leiostomus xanthurus	24
	Total	95	Sciaenidae - Micropogon sp.	1,134
	Sciaenidae	41	Sciaenidae - Micropogon undulatus	674
_	Total	41	Total	3,109
	Bothidae	14	Bregmacerotidae - Bregmaceros sp.	11
***	Bothidae - Etropus sp.	25	Bregmacerotidae - Bregmaceros atlanticus	2,057
	Total	39	Total	2,068
	Gerreidae - Eucinostomus sp.	34	Bothidae	521
	Total	34	Bothidae - Bothus sp.	41
			Bothidae - Bothus ocellatus	136
			Bothidae - Paralichthys sp.	25
		u de la companya de	Bothidae - Syacium sp.	157
	•		Bothidae - Syacium gunteri	8
			Total	888
			Congridae	230
			Total	230

Table 29. (Continued)

	Neuston		Bongo	
Cruise	Family - Genus Species	No. per 1,000 m <sup>3</sup>		No. per 1,000 m <sup>3</sup>
9	Mugilidae - <u>Mugil cephalus</u> Total Gadidae - Urophycis sp.	5,262 5,262 631	Gobiidae Total Mugilidae - Mugil sp.	2,282 2,282 886
	Total · Clupeidae - Brevoortia patronus	631 91	Total Sciaenidae	886 486
	Total	91	Sciaenidae - Cynoscion arenarius	6
	Gerreidae - <u>Eucinostomus</u> sp. Total	16 16	Sciaenidae - <u>Leiostomus</u> <u>xanthurus</u> Sciaenidae - <u>Micropogon</u> <u>undulatus</u>	130 225
	Bothidae - <u>Etropus crossotus</u> Total	14 14	Total Bregmacerotidae - Bregmaceros sp.	847 65
		Σ,	Bregmacerotidae - Bregmaceros atlanticus	464
			Total Clupeidae	529 64
	•		Clupeidae - <u>Brevoortia</u> sp. Total	332 396

Table 30. 1976 BLM neuston fish egg and larval day and night catch statistics.

		<del></del>		· · · · · · · · · · · · · · · · · · ·		Water	Nu	mber
Season/	Transect-		,000 m <sup>3</sup>		$10 \text{ m}^2$	filtered	indiv	iduals
month	station	Eggs	Larvae	Eggs	Larvae	8	Eggs	Larvae
Winter	I-1	366	10	3.7	0.1	738	270	7
WINGEL	I <del>-</del> 2	33,501	1,394	335.0	13.9	640	21,441	892
	I <del>-</del> 3	1,157	1,172	11.6	11.7	859	994	1,007
	II-1	400	188	4.0	1.9	685	274	129
	II <b>-</b> 2	33,956	529	339.6	5.3	738	25,060	390
	II <b>-</b> 3	1,003	722	10.0	7.2	585	587	422
	III-1	45,149	447	451.5	4.5	774	34,945	346
	III-2	1,409	2,469	14.1	24.7	7 <b>9</b> 5	1,120	1,963
	III-3	663	424	6.6	4.2	852	565	361
	IV-1	6,651	1,363	66.5	13.6	574	3,818	782
	IV-2	117,773	615	1,177.7	6.1	675	79,497	415
	IV-3	411	875	4.1	8.8	720	296	630
March	II-l	9,119	4,056	91.2	40.6	472	4,304	1,914
	II <b>-</b> 2	29,608	1,143	296.1	11.4	53ľ	15,722	607
	II <b>-</b> 3	2,454	710	24.5	7.1	710	1,742	504
April	II-1	10,459	1,371	104.6	13.7	520	5,439	713
	II <del>-</del> 2	13,498	194	135.0	1.9	810	10,933	157
	II <b>-</b> 3	1,923	341	19.2	3.4	768	1,477	262
Spring	I-1	7,686	235	76.9	2.3	701	5,388	165
	I <b>-</b> 2	2,785	1,108	27.9	11.1	720	2,005	798
	I-3	4,904	1,883	49.0	18.8	953	4,674	1,795
	II-1	10,696	8,374	107.0	83.8	640	6,845	5,3 <b>6</b> 6
	II-2	1,575	1,963	15.8	19.6	528 600	832	1,037
	II-3	4,522	1,118	45.2	11.2	609	2,754	681
	III-l III-2	43,260 130	1,408	432.6 1.3	14.1 11.2	716 845	30,974	1,008 949
	III-2 III-3	6 <b>,8</b> 38	3,347	68.4	33.5	731	4,999	2,447
	IV-1	32,291	694	322.9	6.9	1,039	33,550	721
	IV-2	2,590	610	25.9	6.1	917	2,375	559
	IV-3	2,853	1,613	28.5	16.1	708	2,020	1,142
July	II <b>-</b> 1	10,018	301	100.2	3.0	697	6,983	210
J	II <b>-</b> 2	4,640	4,929	46.4	49.3	816	3,786	4,022
	II <b>-</b> 3	6,903	77	69.0		786	5,426	61
August	II-1	11,522	4,417	115.2	44.2	825	9,506	3,644
J	II <b>-</b> 2	9,226	953	92.3	9.5	773	7,132	737
	II-3	1,636	3,897	16.4	39.0	714	1,168	2,783
Fall	I-1	1,552	867	15.5	8.7	789	1,225	684
	I <b>-</b> 2	7,453	1,159	74.5	11.6	790	5,887	916
	I-3	1,201	61	12.0	0.6	1,344	1,614	82
	II-1	1,068	466	10.7	4.7	703	751	328
	II <b>-</b> 2	215	1,393	2.2	13.9	838	180	1,167
	II <b>-</b> 3	369	353	3.7	3.5	832	307	294
	III-1	2,464	1,121	24.6	11.2	773	1,905	867
	III-2	351	1,273	3.5	12.7	601	211	765
	III-3	472	800	4.7	8.0	958	452	766
	IV-1	1,353	1,505	13.5	15.0	683	924	1,028
	IV-2	170	867	1.7	8.7	867 6 <b>7</b> 0	147	752
	IV-3	900	400	9.0	4.0	672	605	269

Table 30. (Continued)

Season/	Transect-	No./l	,000 m <sup>3</sup> Larvae	Under Eggs	10 m <sup>2</sup> Larvae	Water filtered m3		nber i <b>dua</b> ls Larvae
November December	II-1 II-2 II-3 II-1 II-2 II-3	532 1,877 179 16 964 625	1,337 358 316 460 3,217 5,587	5.3 18.8 1.8 0.2 9.6 6.3	13.4 3.6 3.2 4.6 32.2 55.9	721 797 619 877 570 600	384 1,496 111 14 550 375	964 285 196 403 1,834 3,352

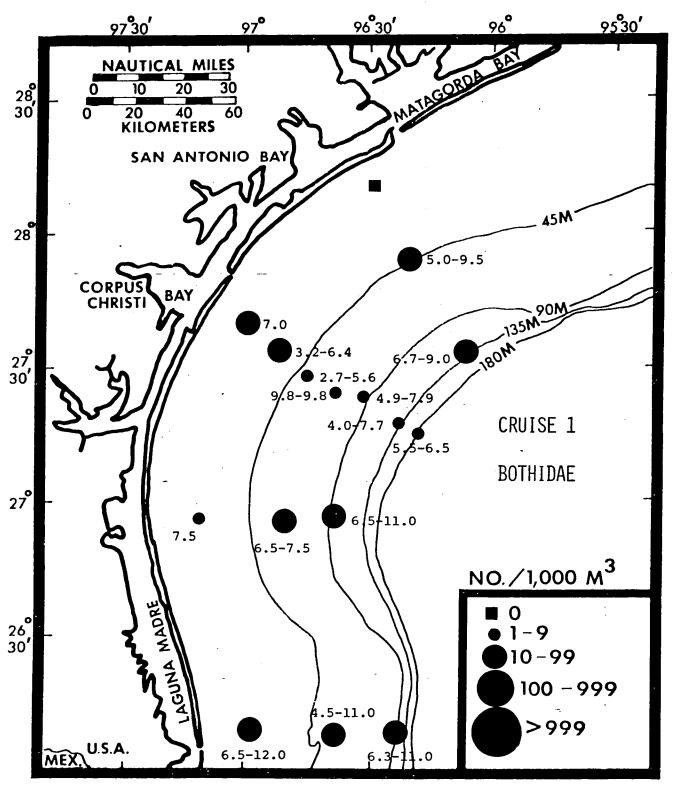


Figure 3. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 1.

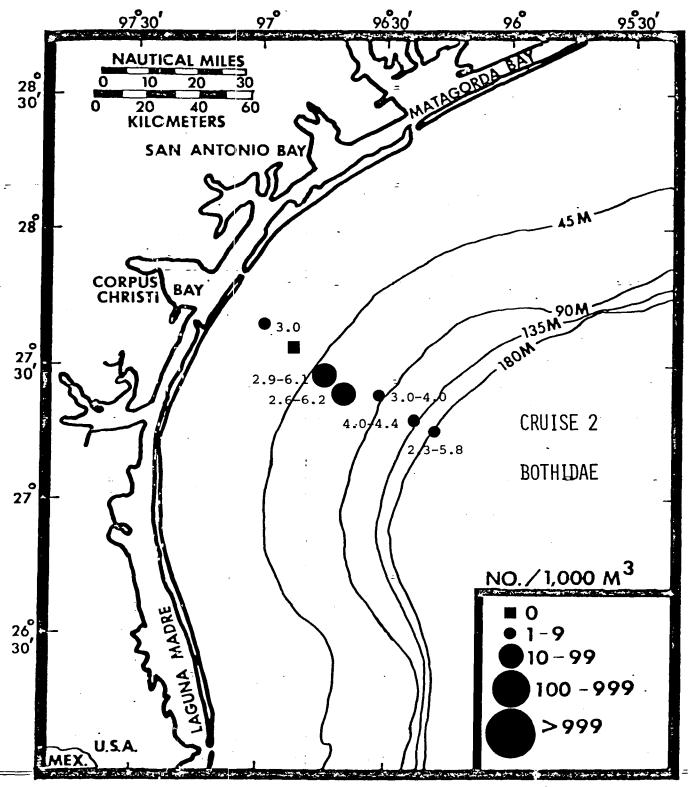


Figure 4. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 2.

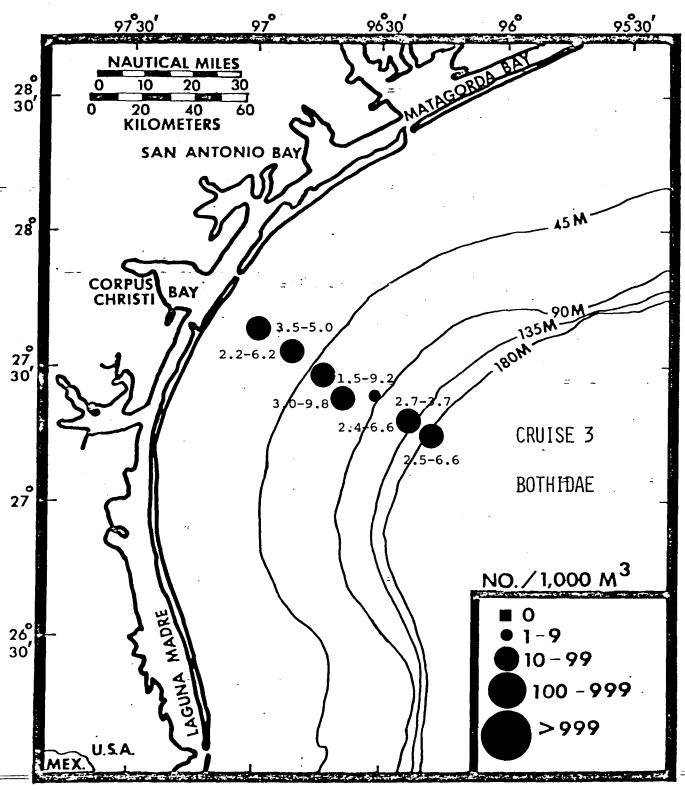


Figure 5. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 3.

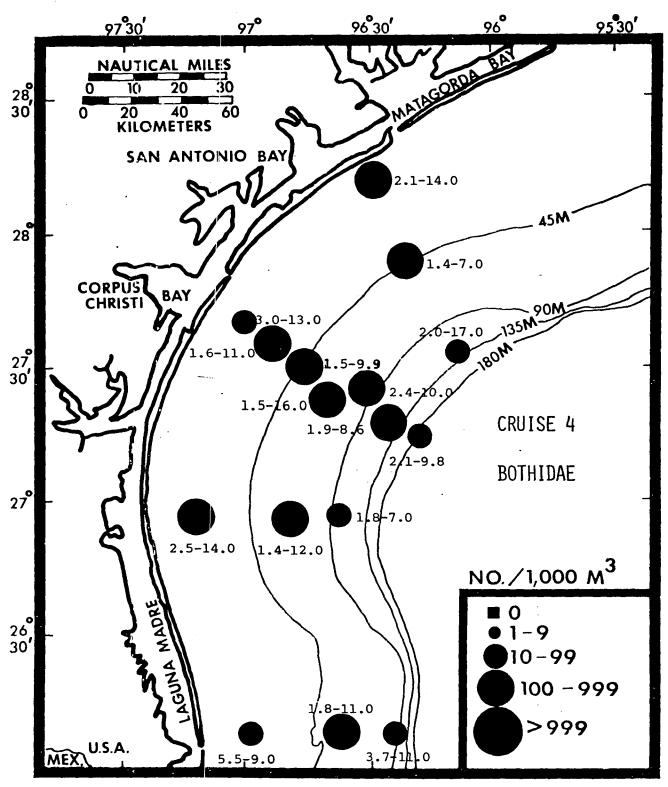


Figure 6. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 4.

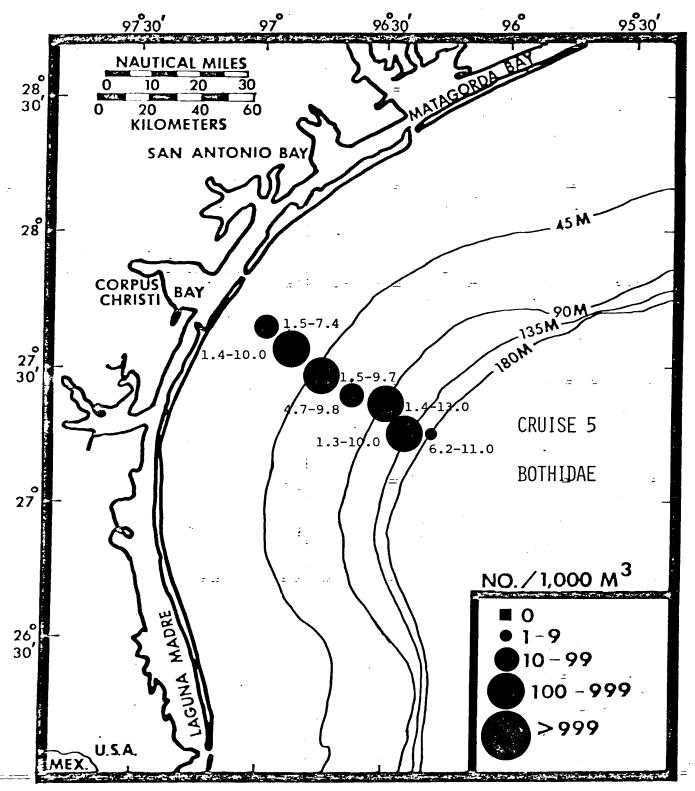


Figure 7. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 5.

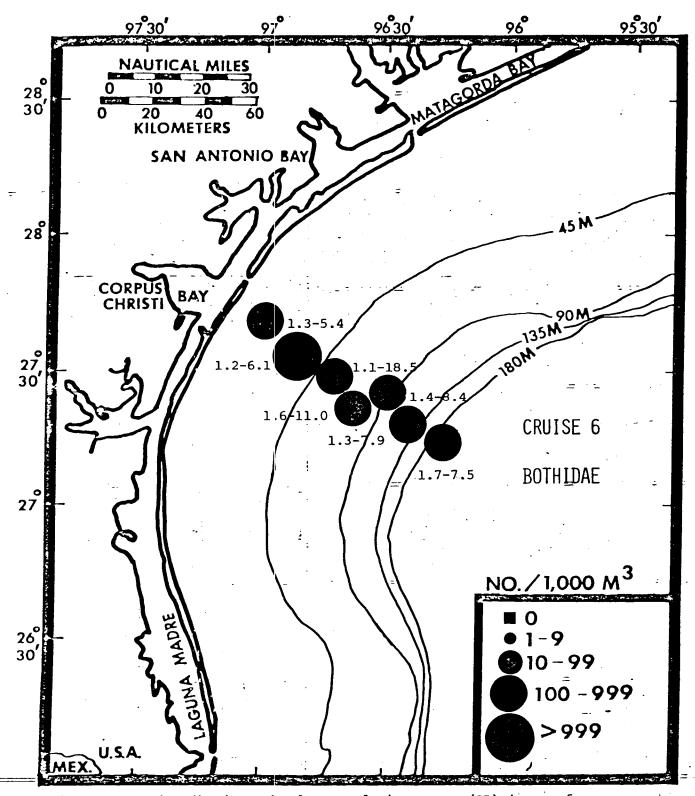


Figure 8. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 6.

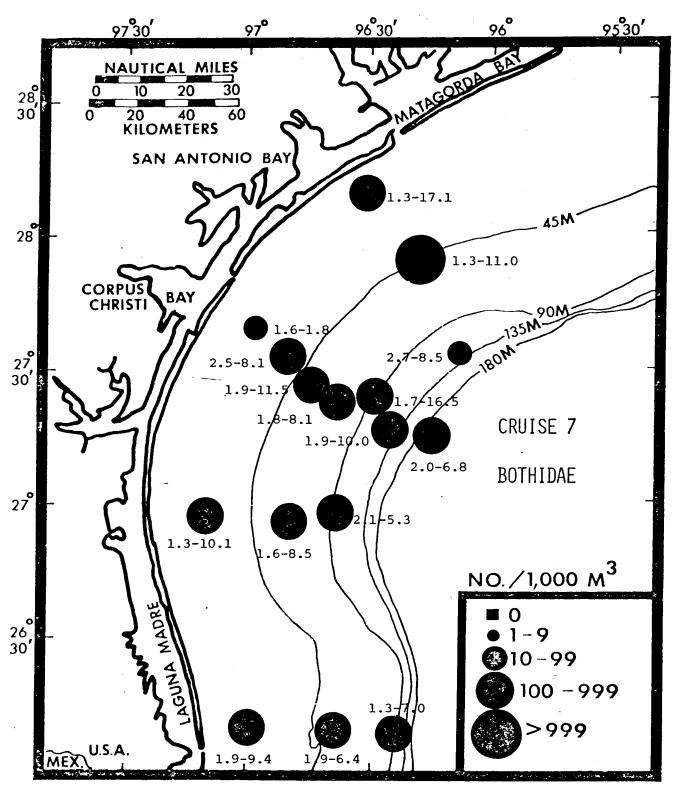


Figure 9. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 7.

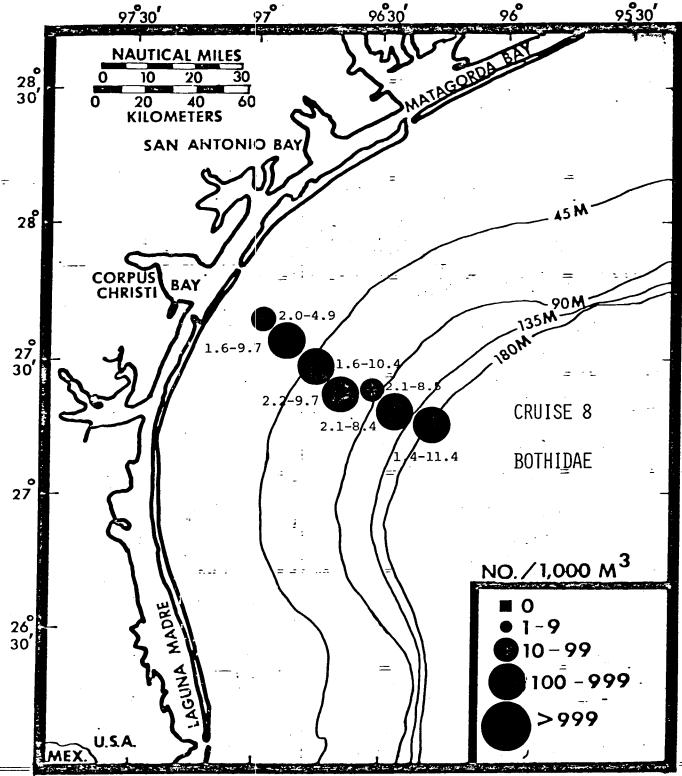


Figure 10. Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 8.

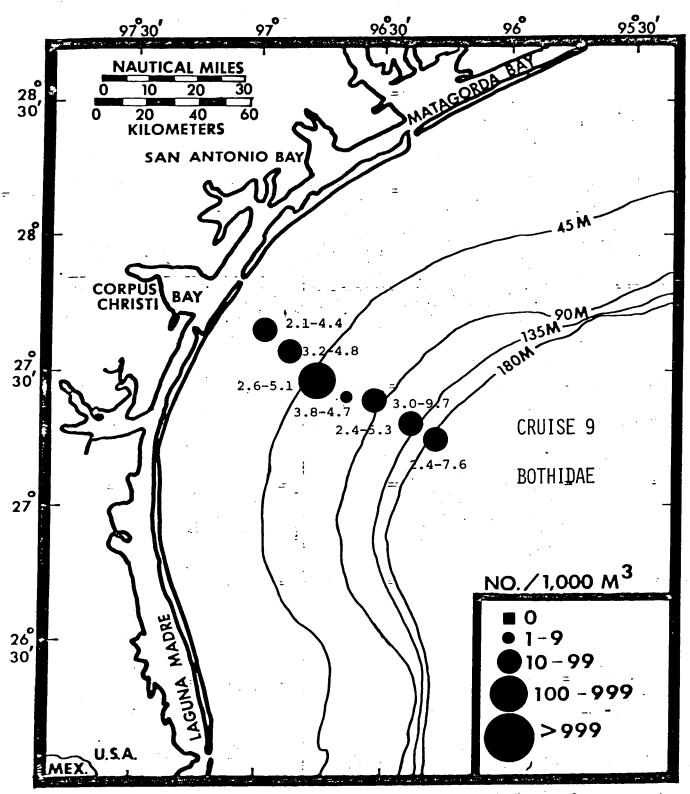


Figure | | . Distribution, abundance and size range (SL) in mm of bothid larvae during Cruise 9.

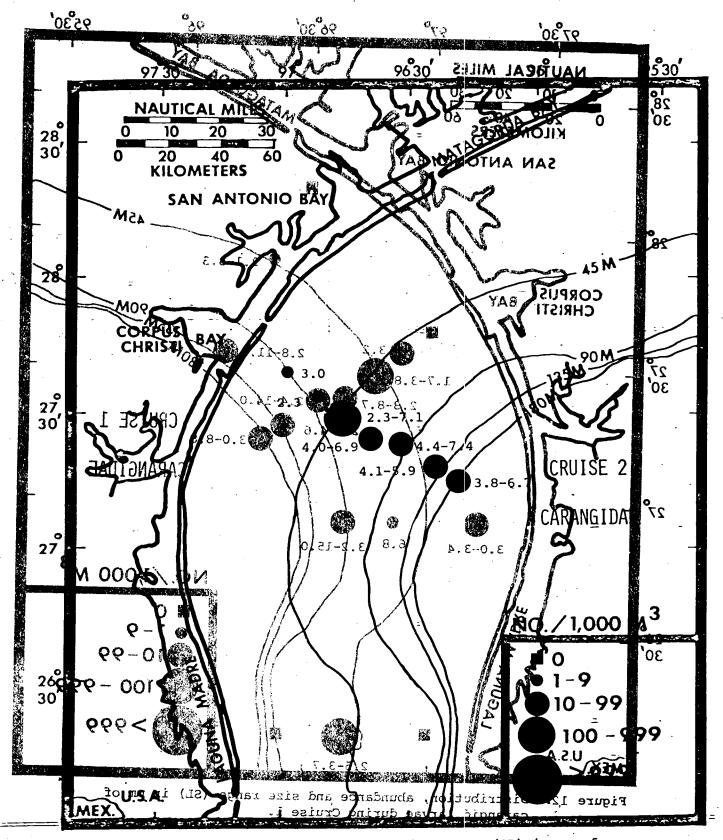


Figure 13. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 2.

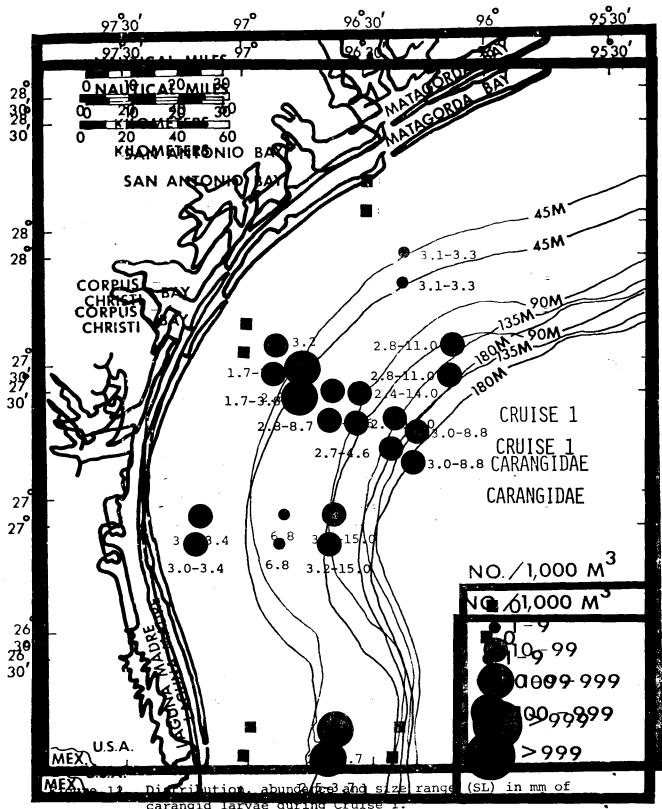


Figure 12. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 1.

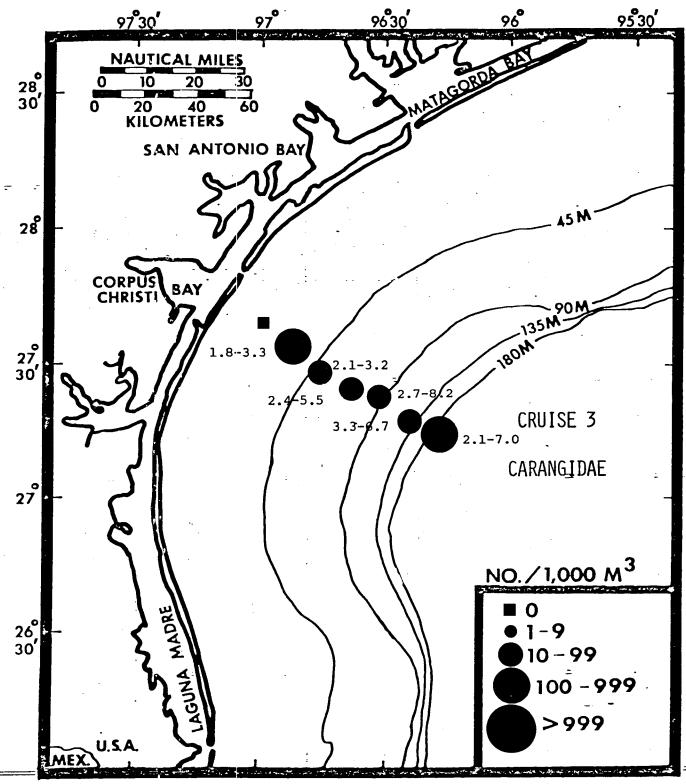


Figure 14. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 3.

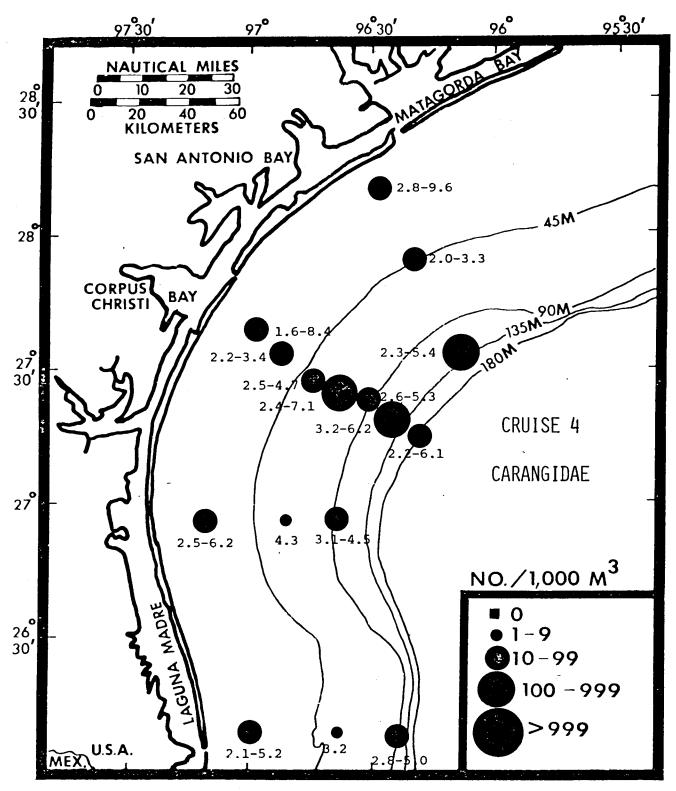


Figure 15. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 4.

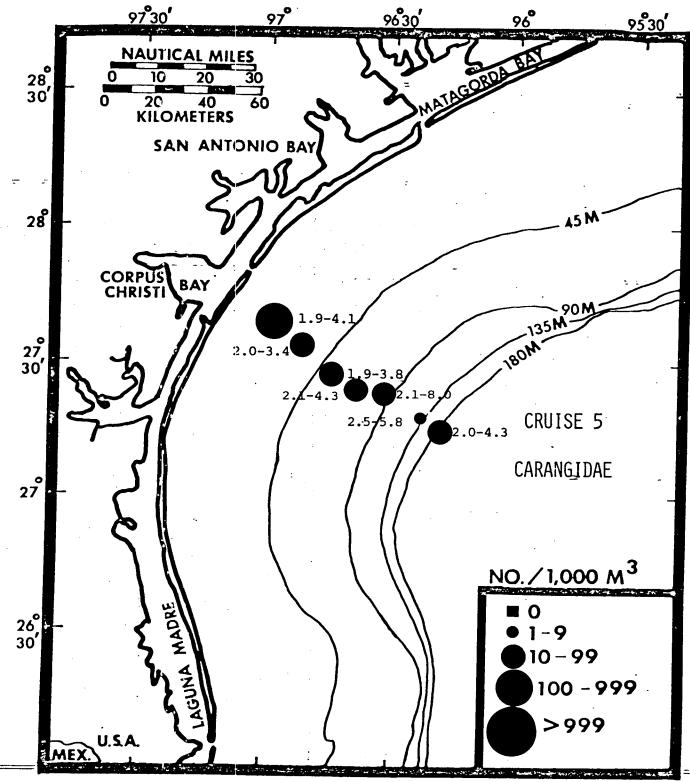


Figure 16. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 5.

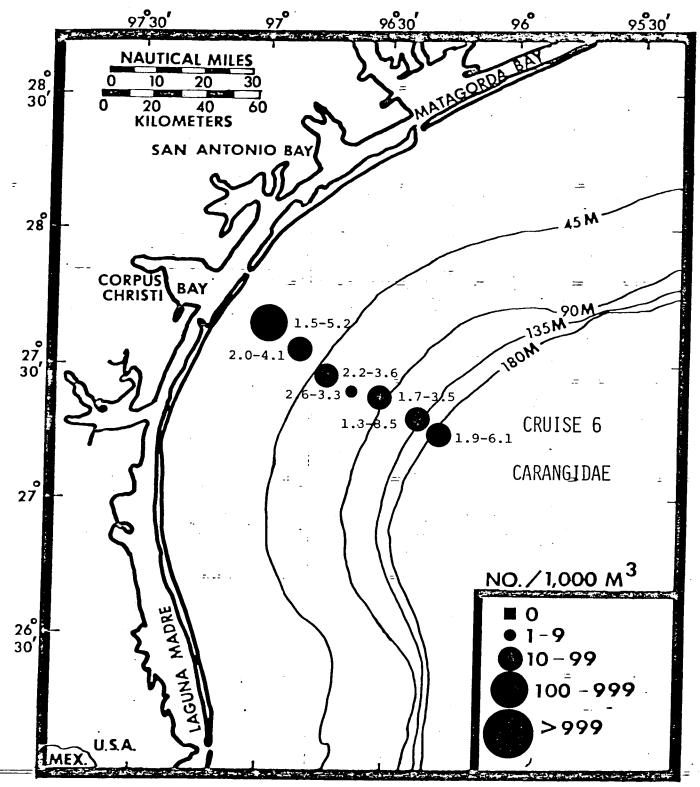


Figure 17. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 6.

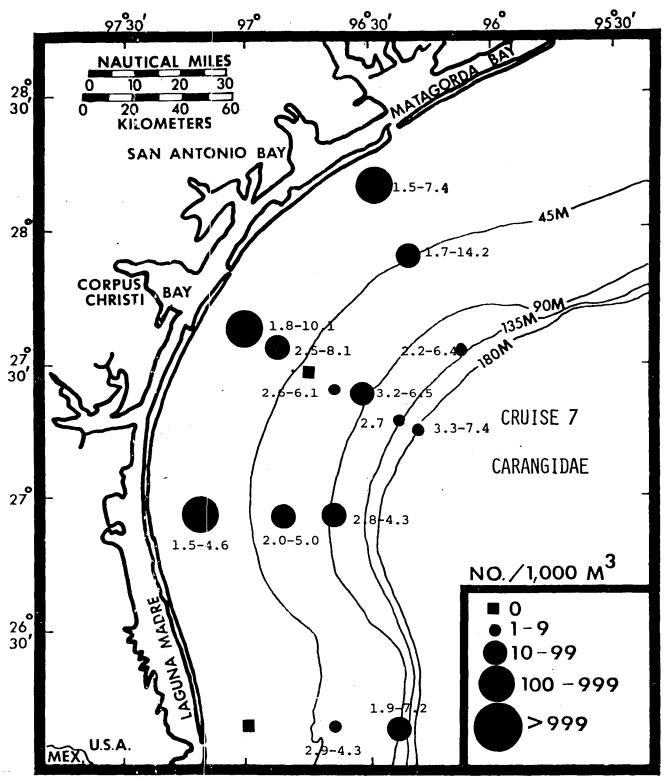


Figure 18. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 7.

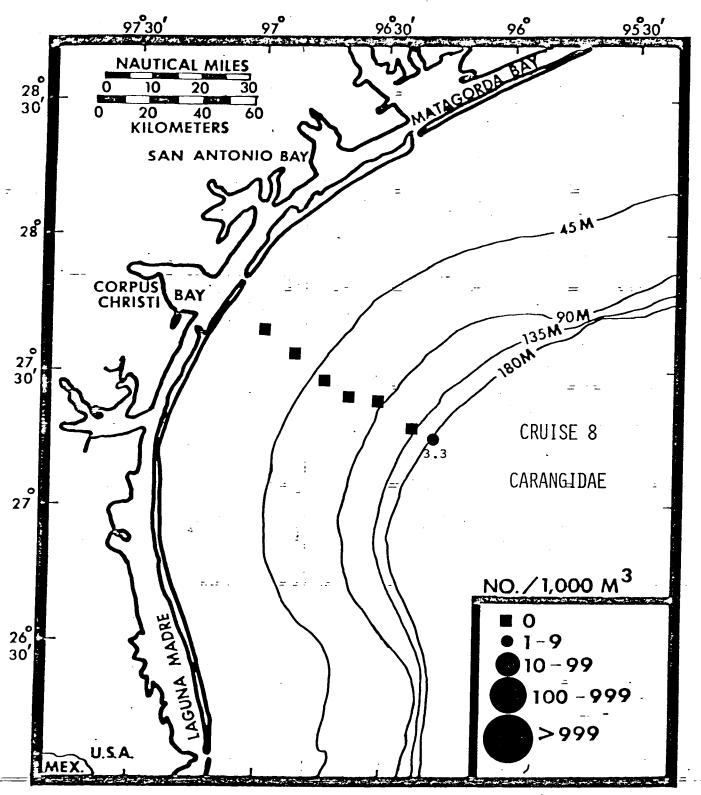


Figure 19. Distribution, abundance and size range (SL) in mm of carangid larvae during Cruise 8.

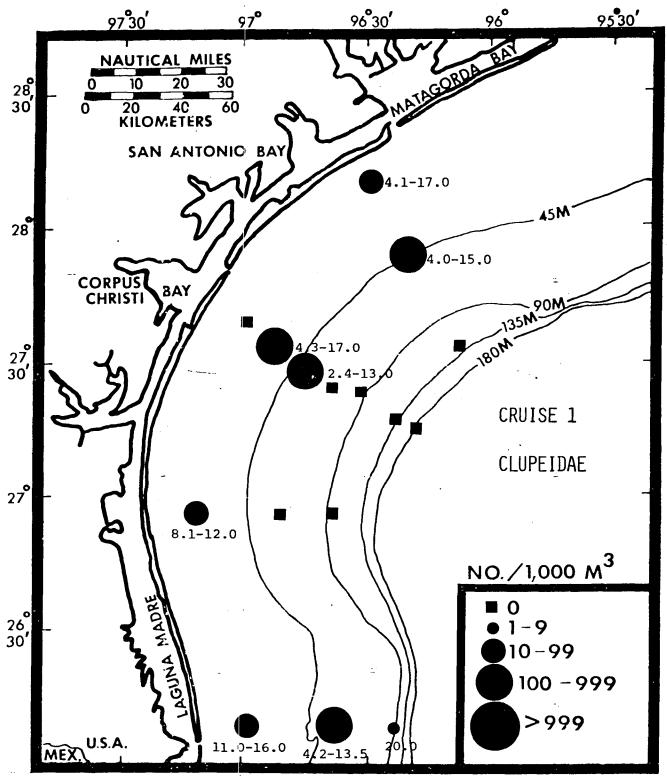


Figure 20. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 1.

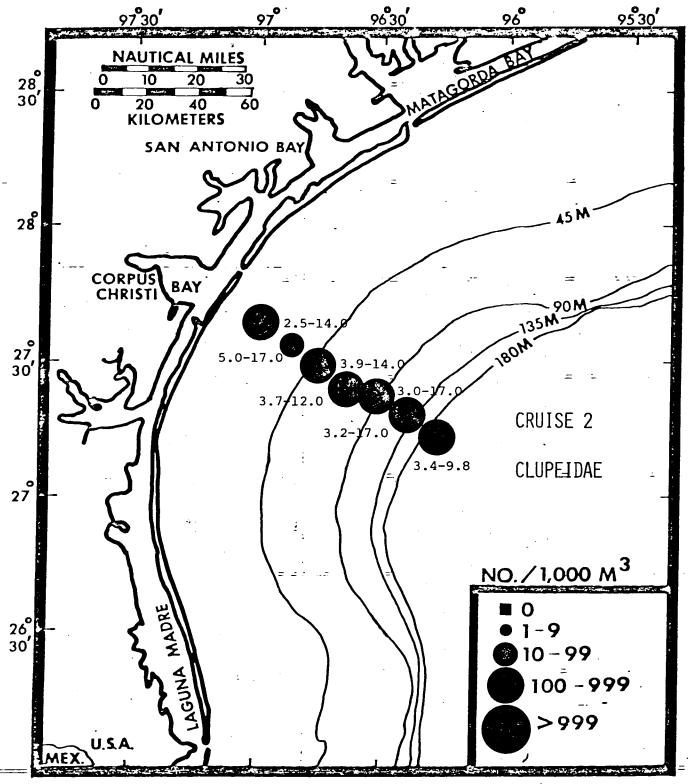


Figure 21. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 2.

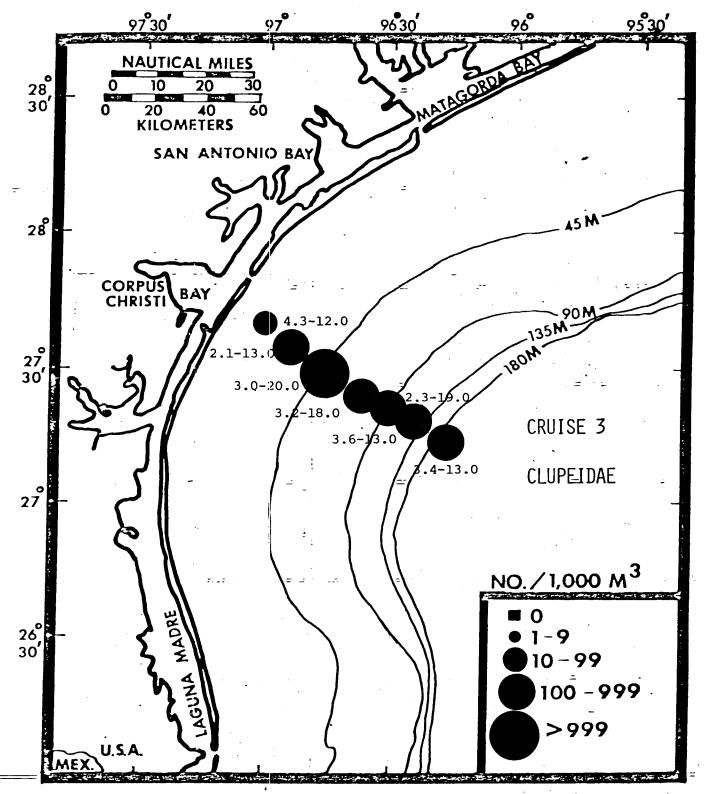


Figure 22. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 3.

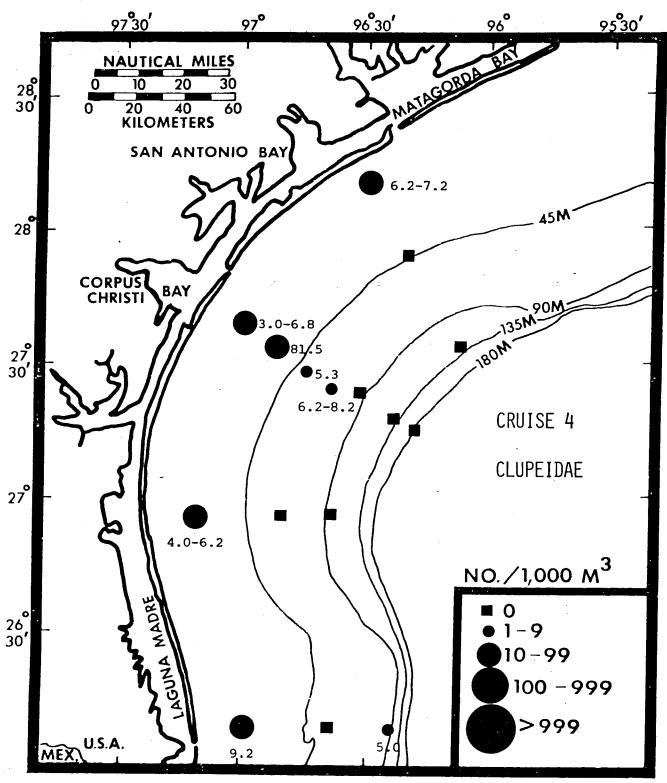


Figure 23. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 4.

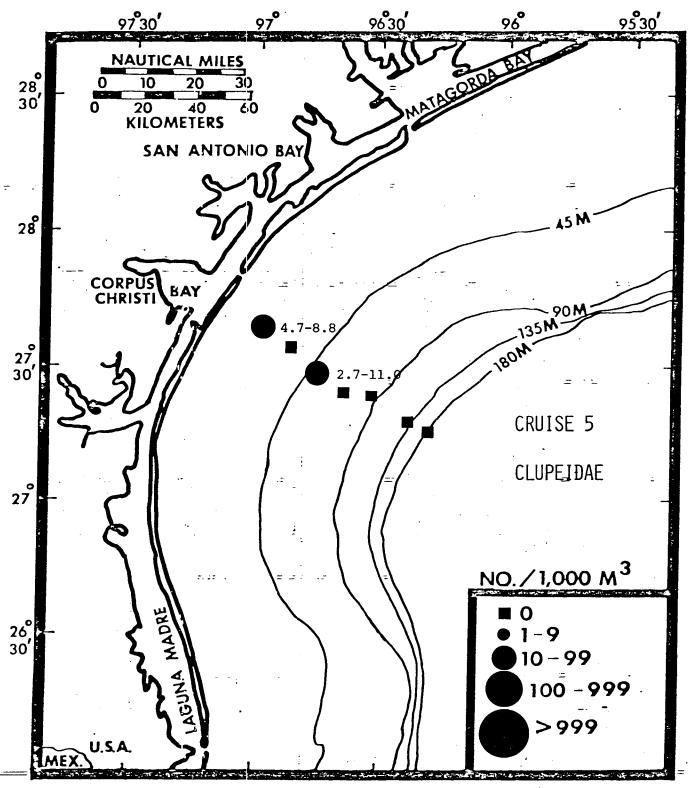


Figure 24. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 5.

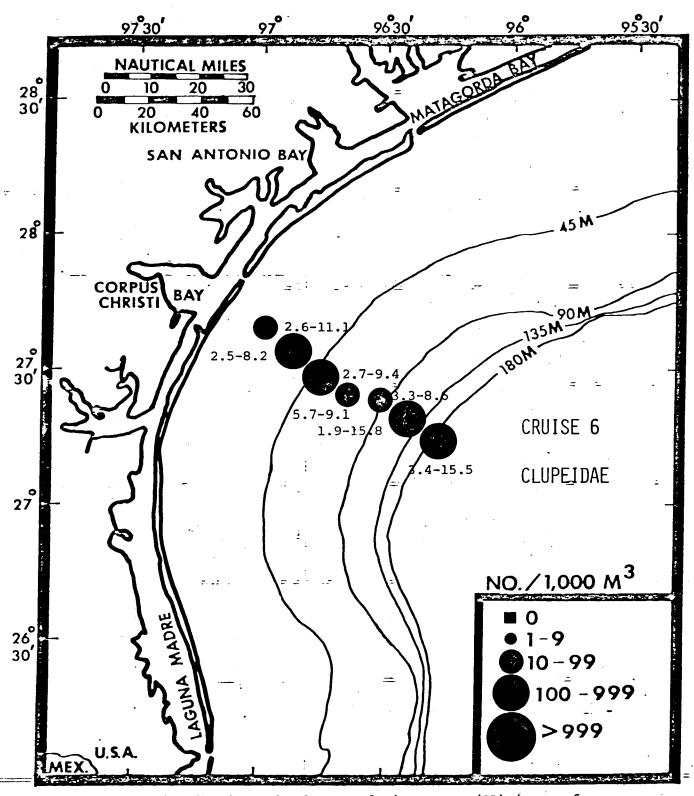


Figure 25. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 6.

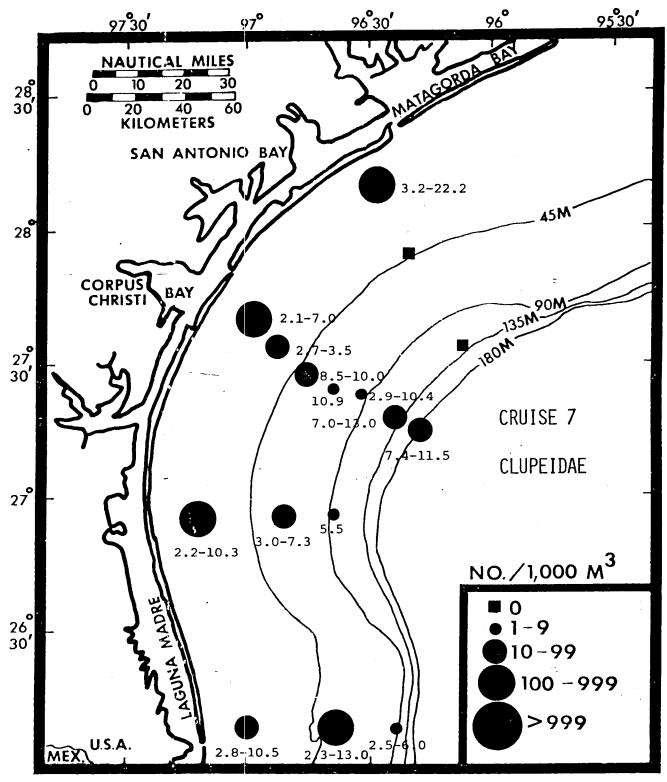


Figure 26. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 7.

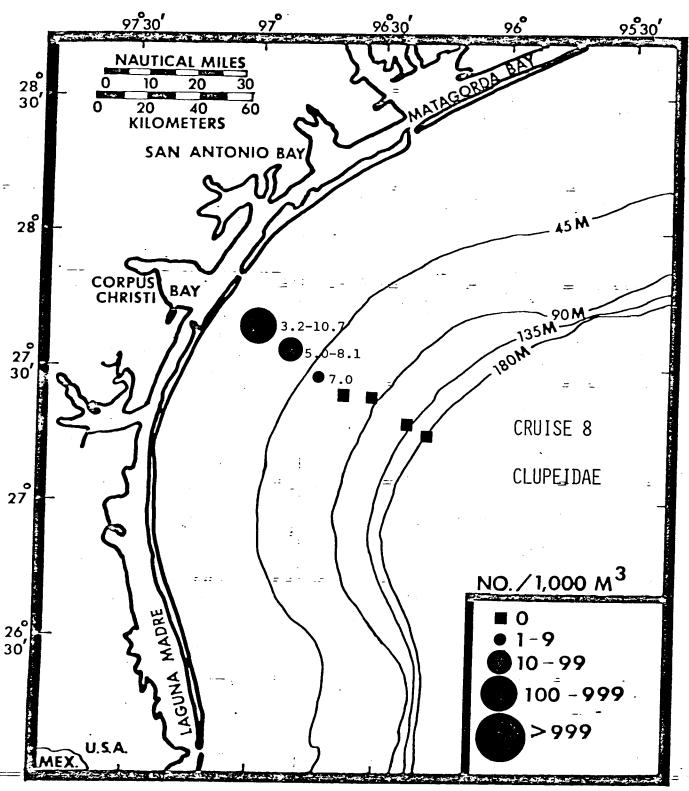


Figure 27. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 8.

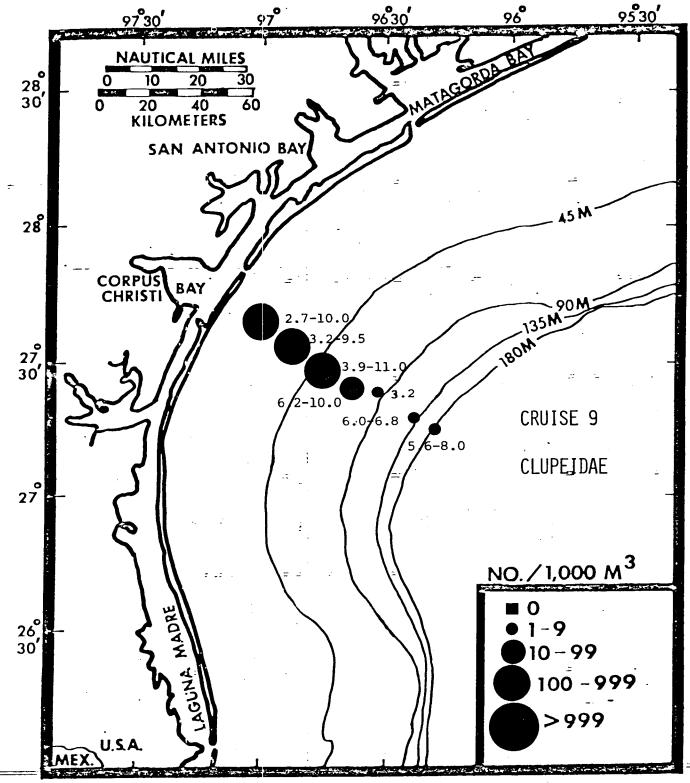


Figure 28. Distribution, abundance and size range (SL) in mm of clupeid larvae during Cruise 9.

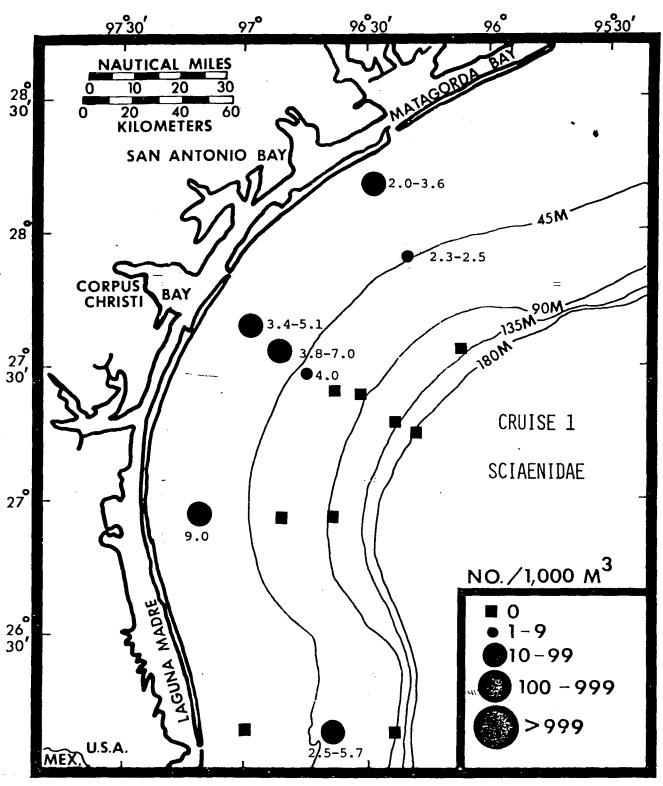


Figure 29. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 1.

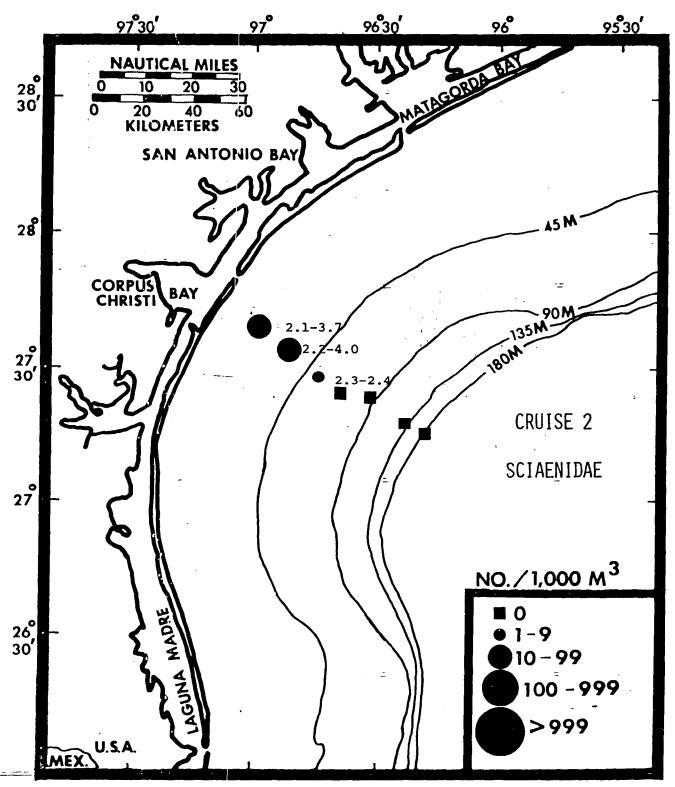


Figure 30. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 2.

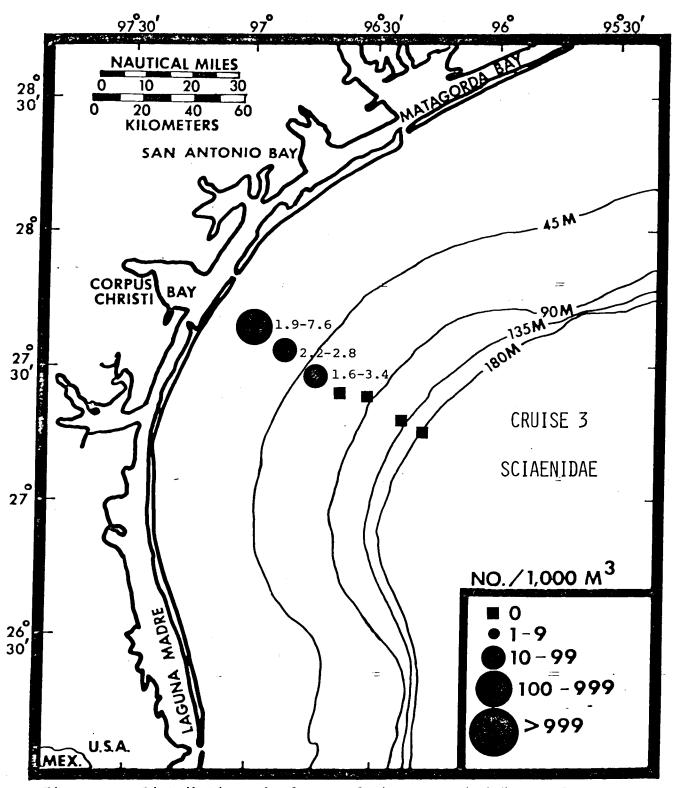


Figure 31. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 3.

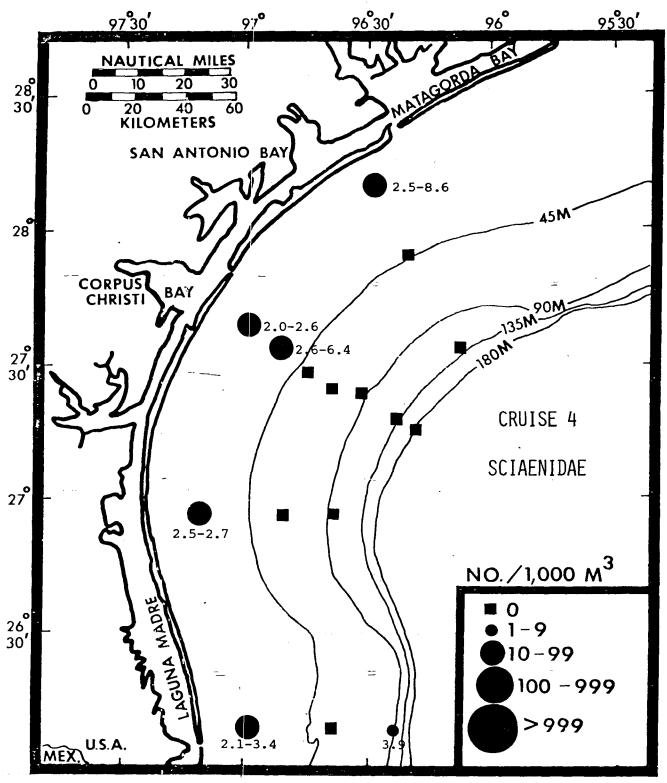


Figure 32. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 4.

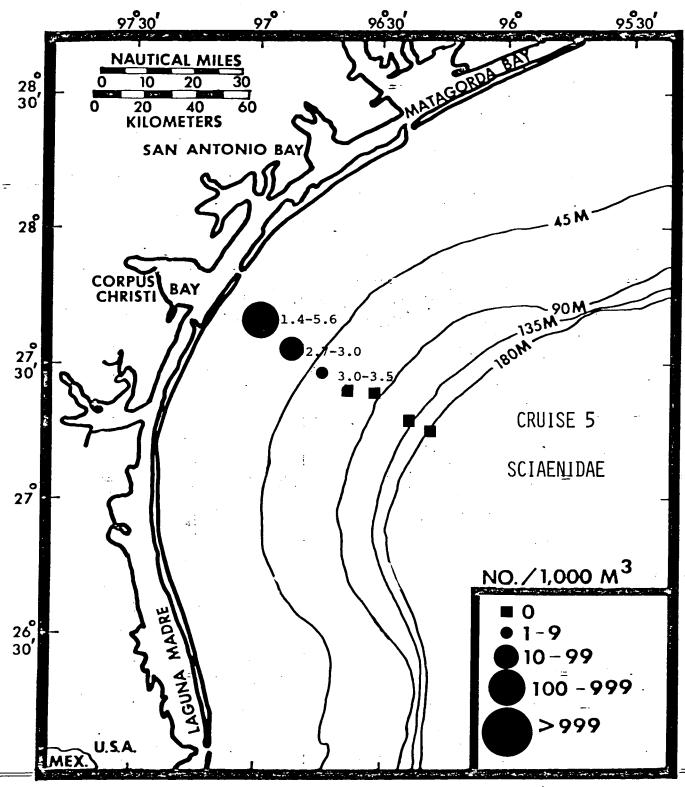


Figure 33. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 5.

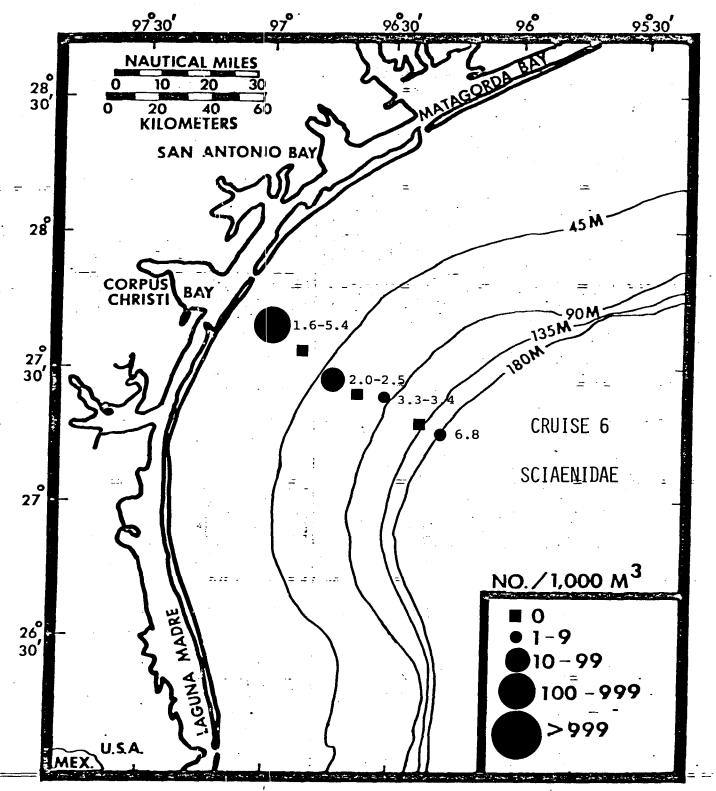


Figure 34. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 6.

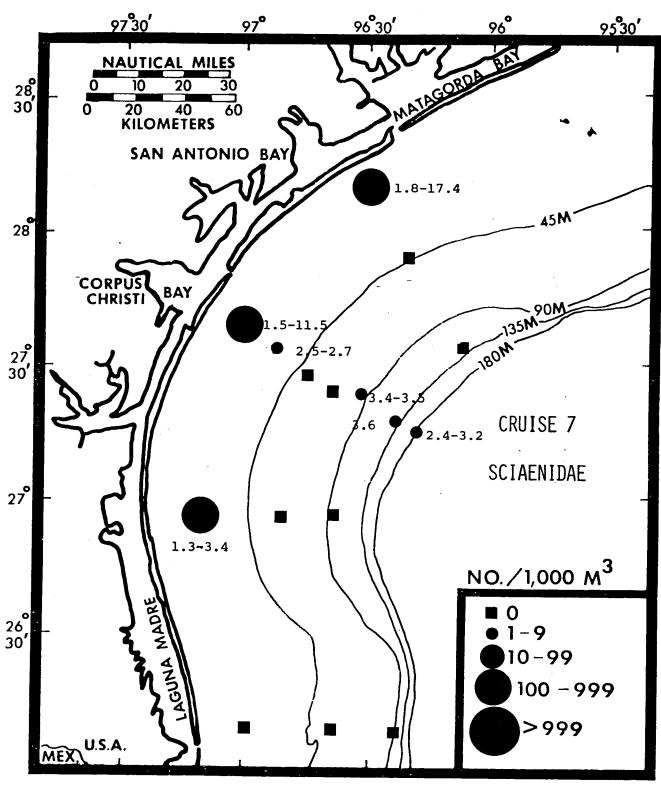


Figure 35. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 7.

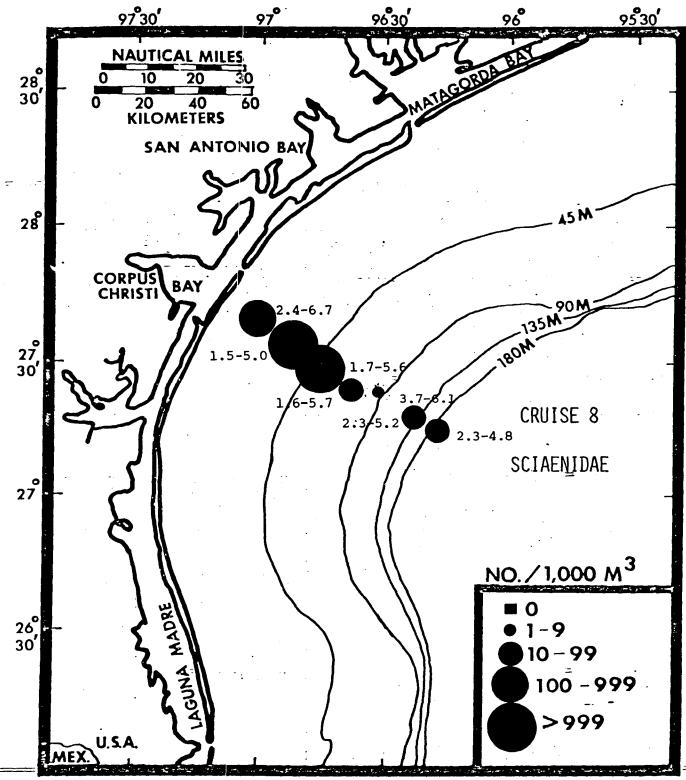


Figure 36. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 8.

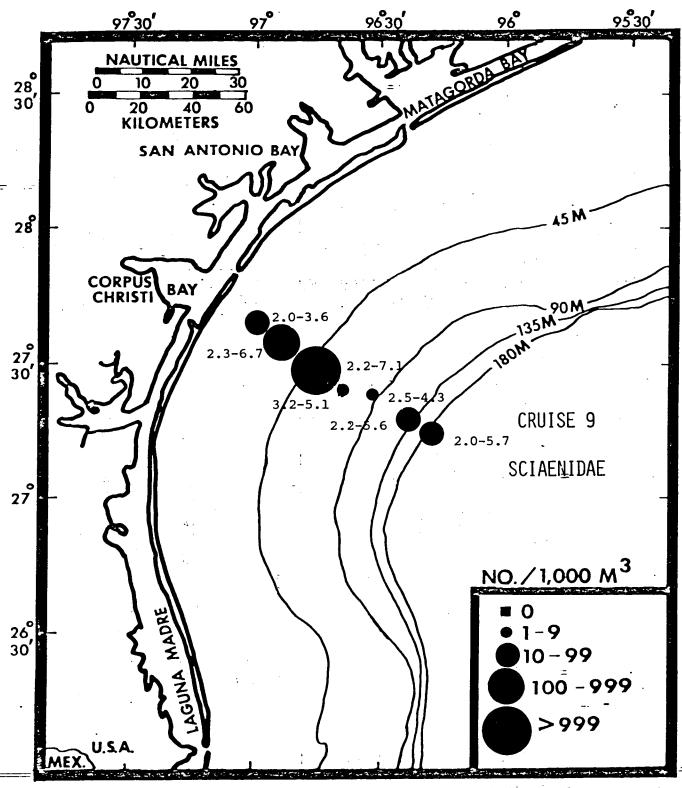


Figure 37. Distribution, abundance and size range (SL) in mm of sciaenid larvae during Cruise 9.

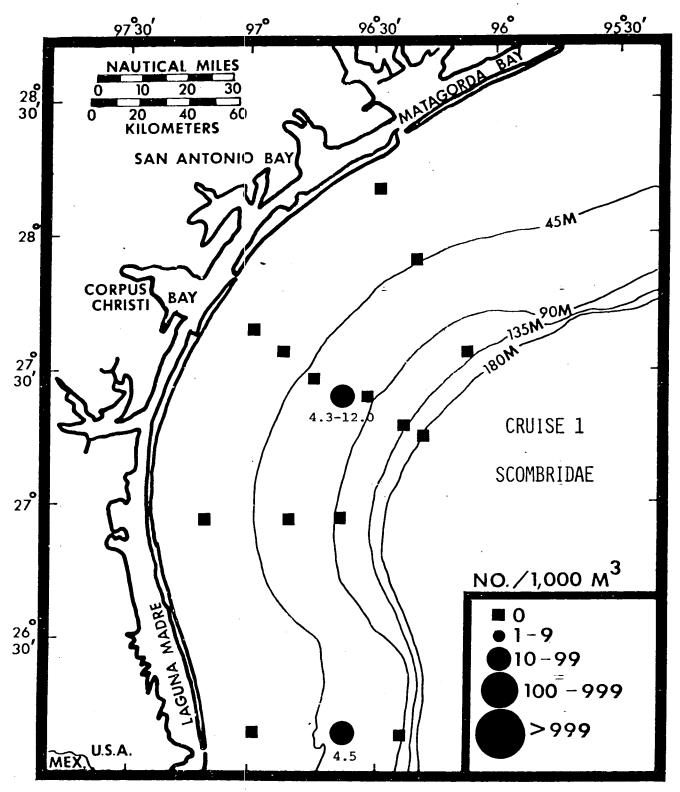


Figure 38. Distribution, abundance and size range (SL) in mm of scombrid larvae during Cruise 1.

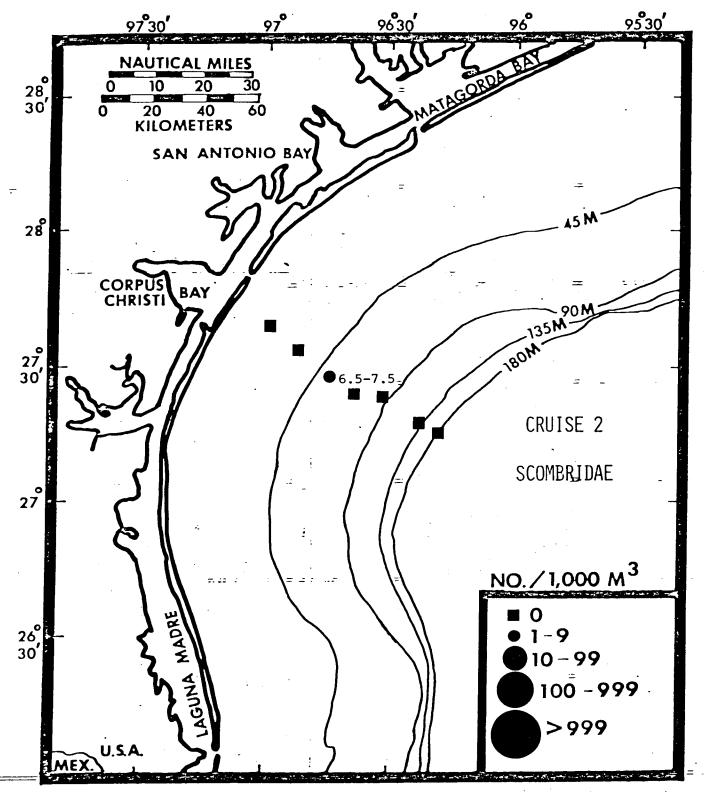


Figure 39. Distribution, abundance and size range (SL) in mm of scombrid larvae during Cruise 2.

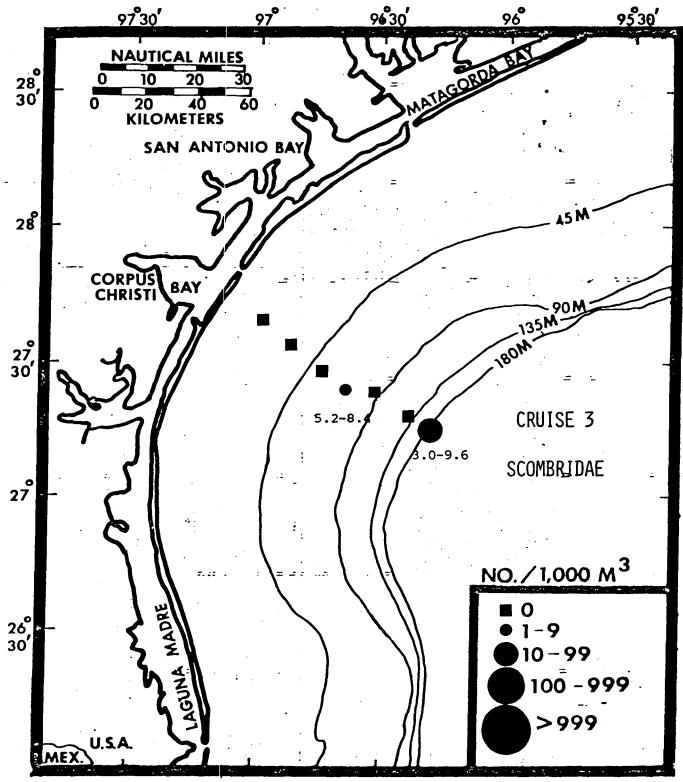


Figure 40. Distribution, abundance and size range (SL) in mm of scombrid larvae during Cruise 3.

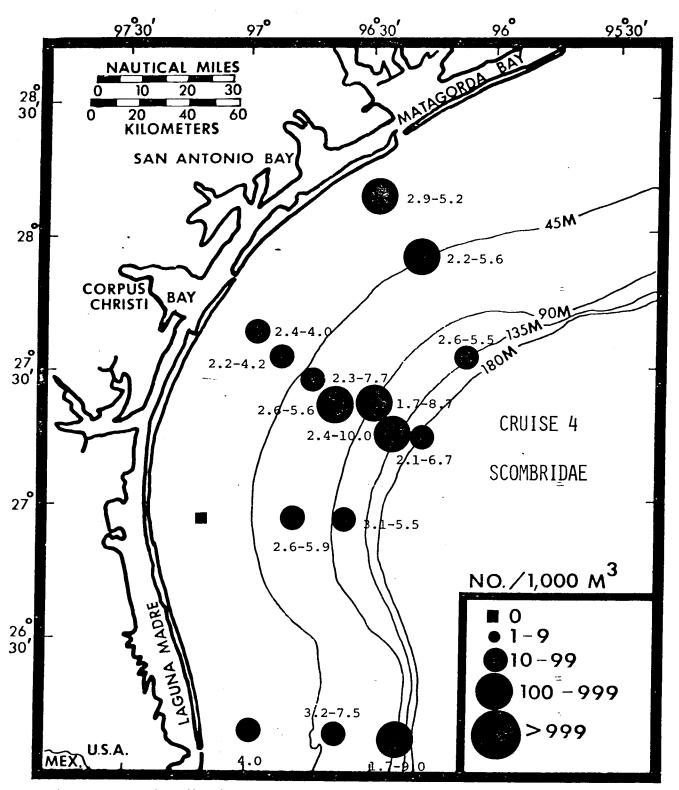


Figure 41. Distribution, abundance and size range (SL) in mm of scombrid larvae during Cruise 4.

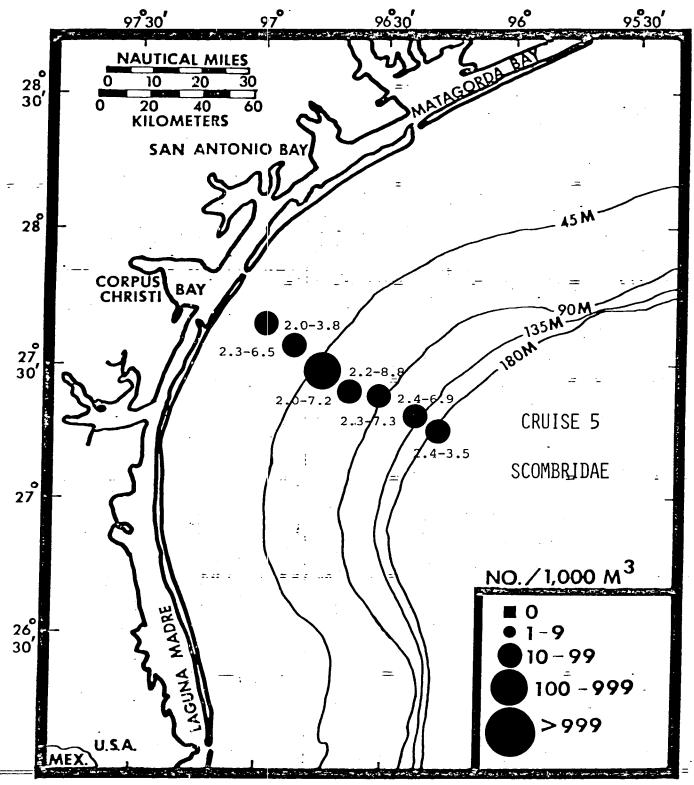


Figure 42. Distribution, abundance and size range (SL) in mm of scombrid larvae during Cruise 5.

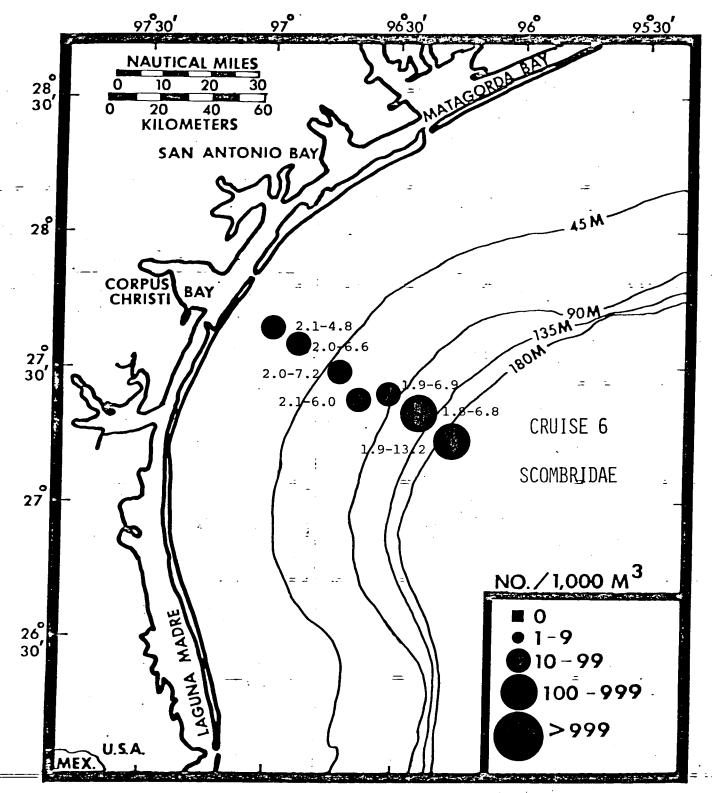


Figure 43. Distribution, abundance and size range (SL) in mm of scombrid larvae during Cruise 6.

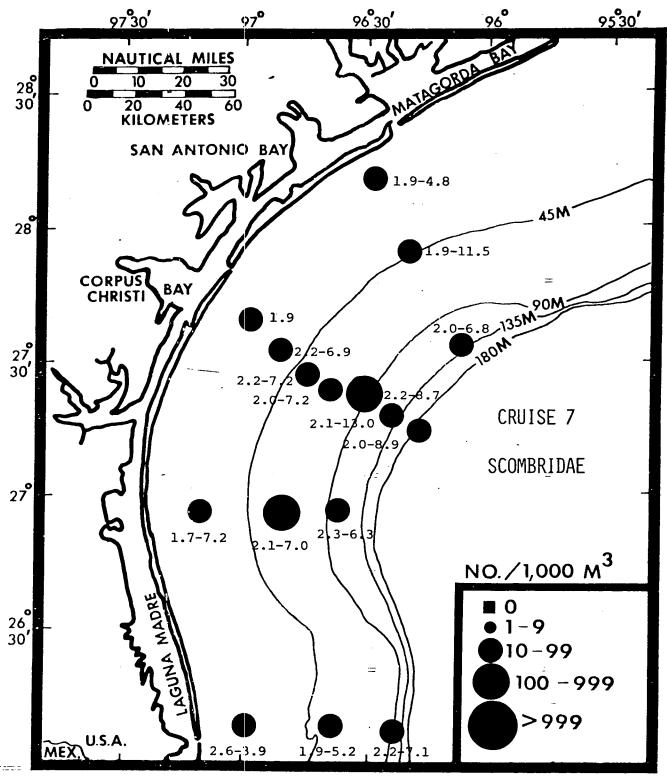


Figure 44. Distribution, abundance and size range (SL) in mm of scombrid larvae during Cruise 7.

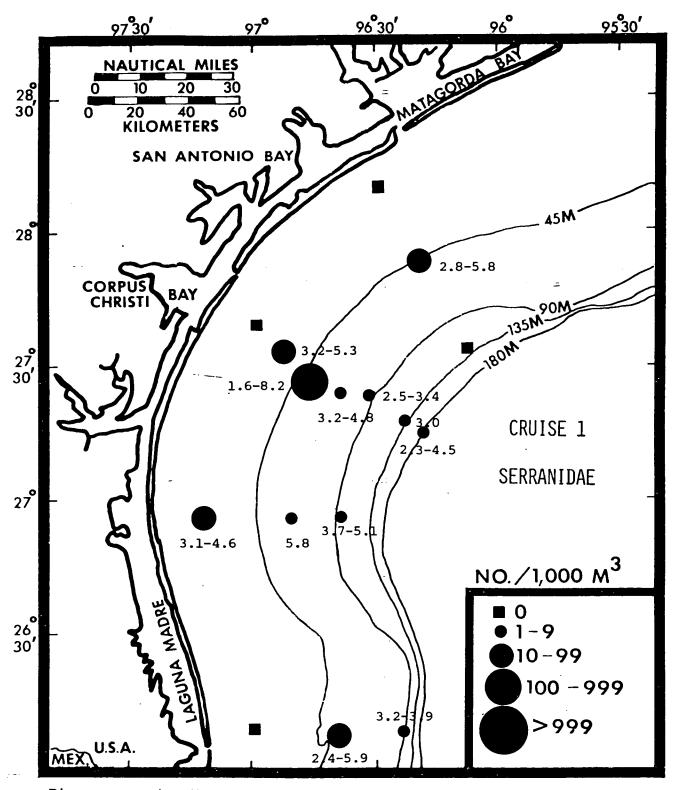


Figure 45. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 1.

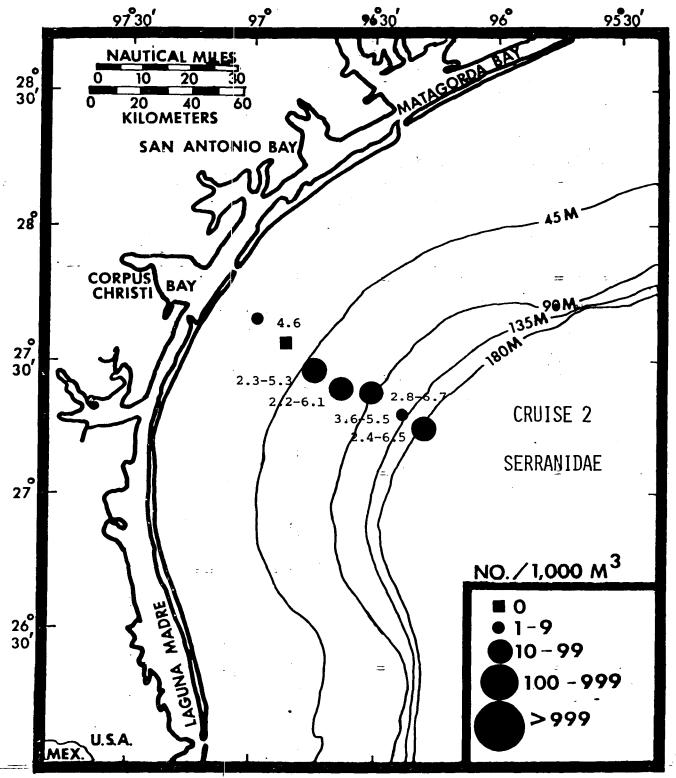


Figure 46. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 2.

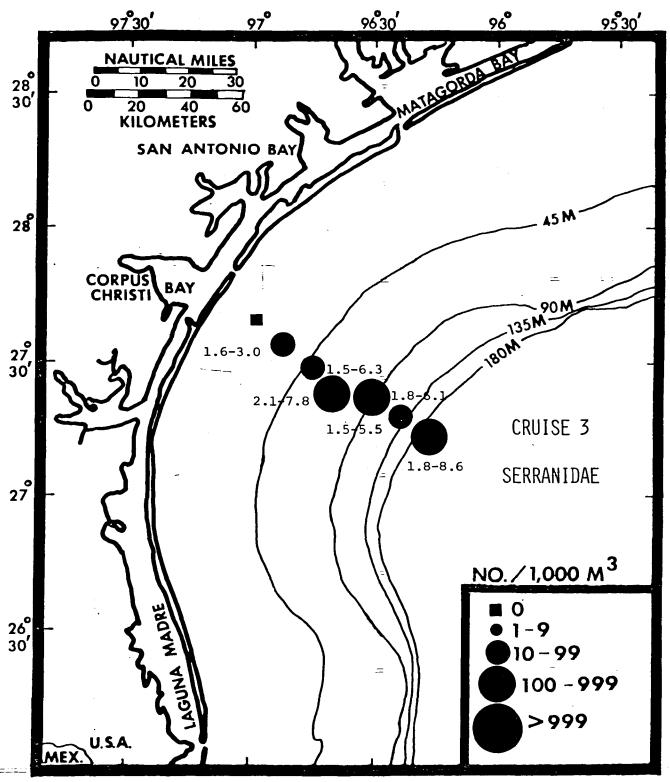


Figure 47. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 3.

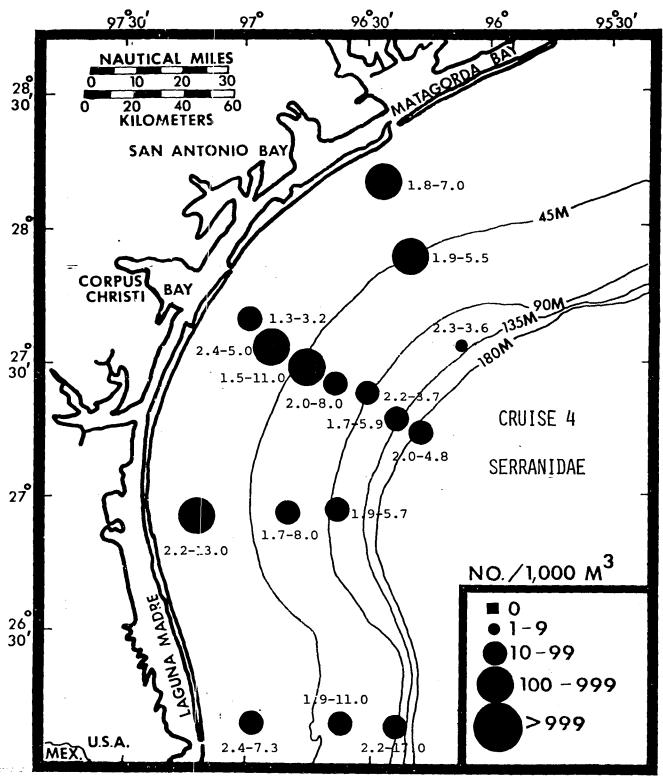


Figure 48. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 4.

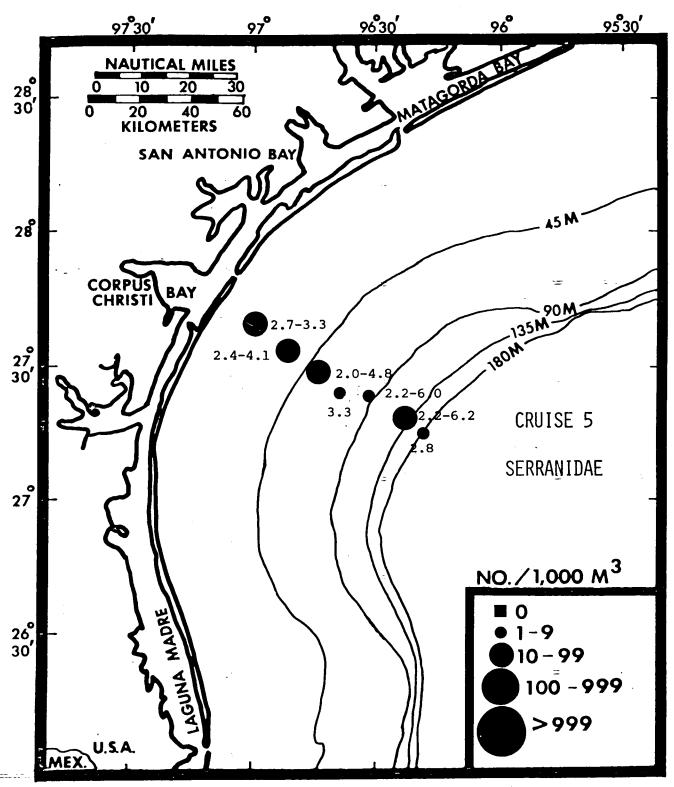


Figure 49. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 5.

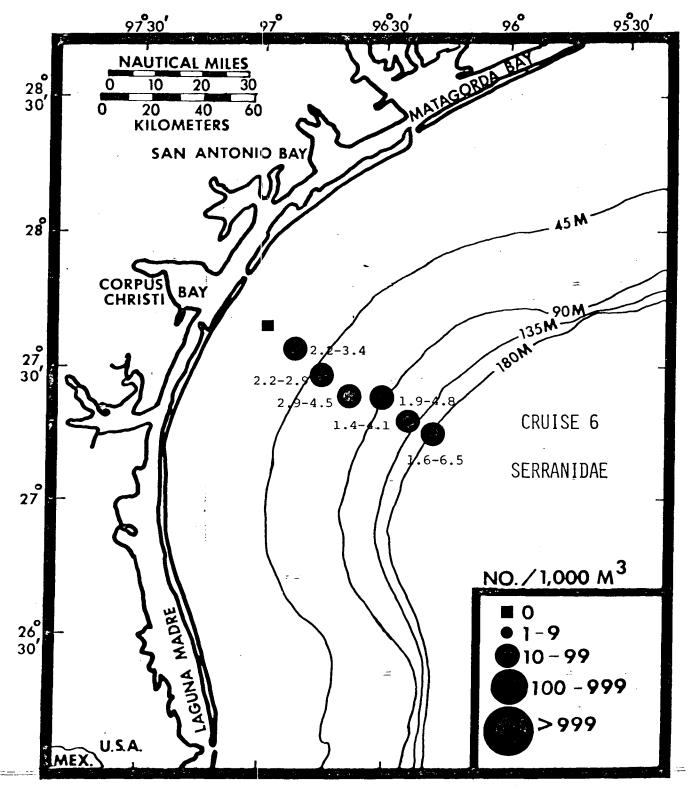


Figure 50. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 6.

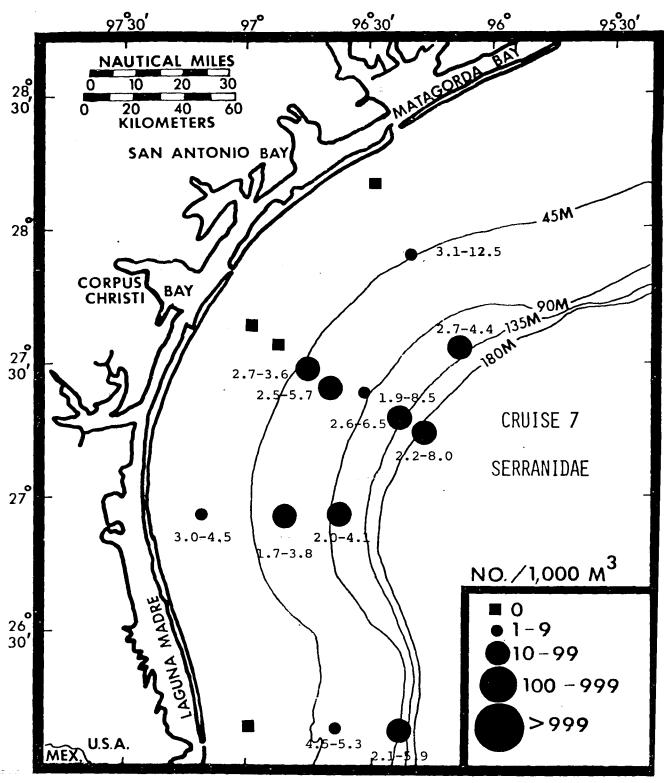


Figure 51. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 7.

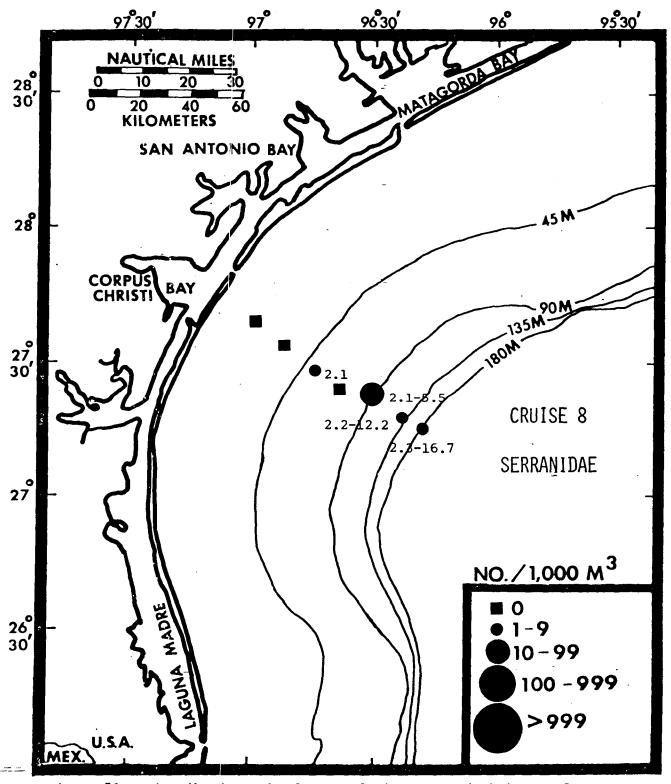


Figure 52. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 8.

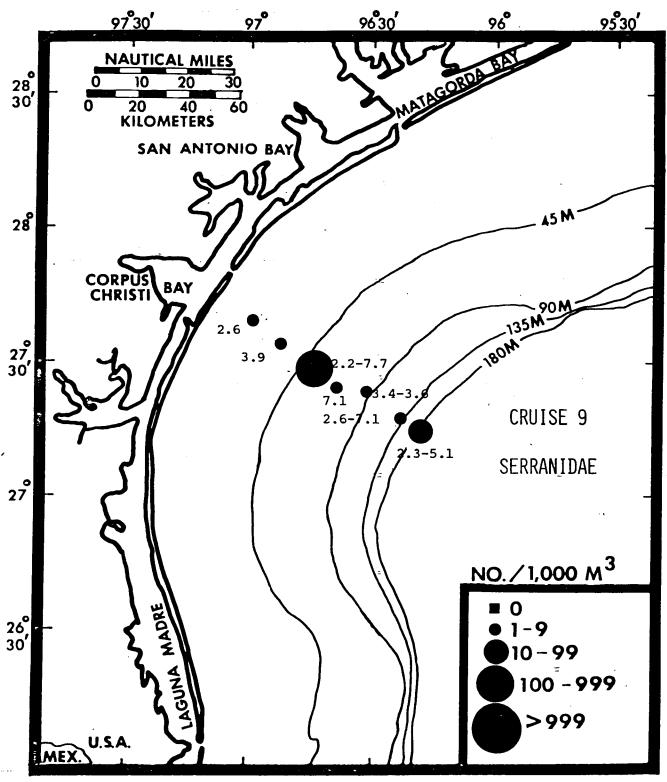


Figure <sup>53</sup>. Distribution, abundance and size range (SL) in mm of serranid larvae during Cruise 9.

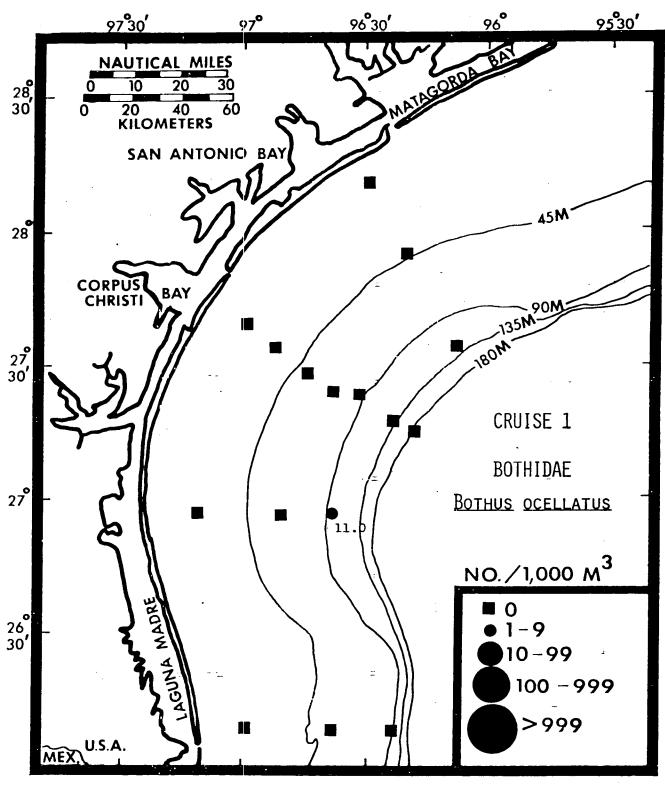


Figure 54. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 1.

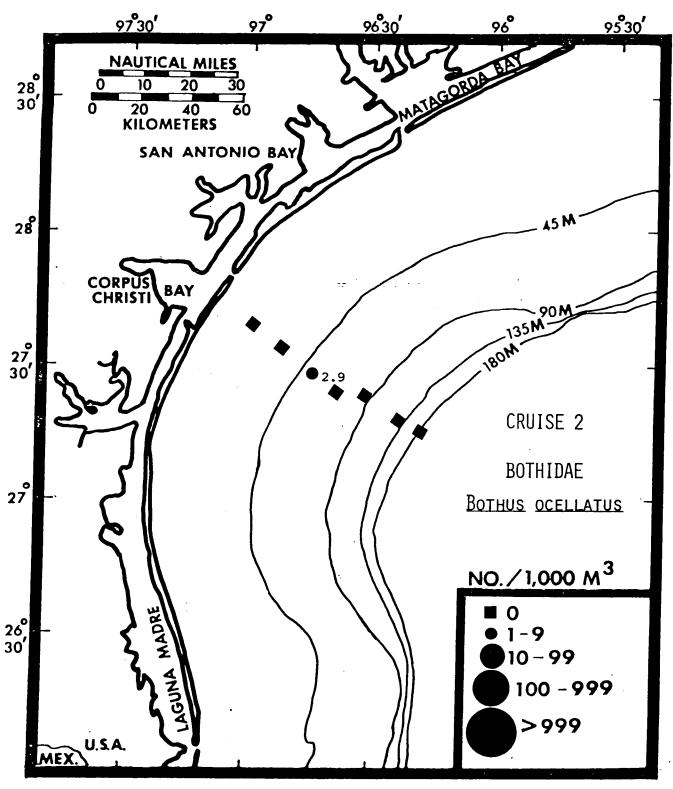


Figure 55. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 2.

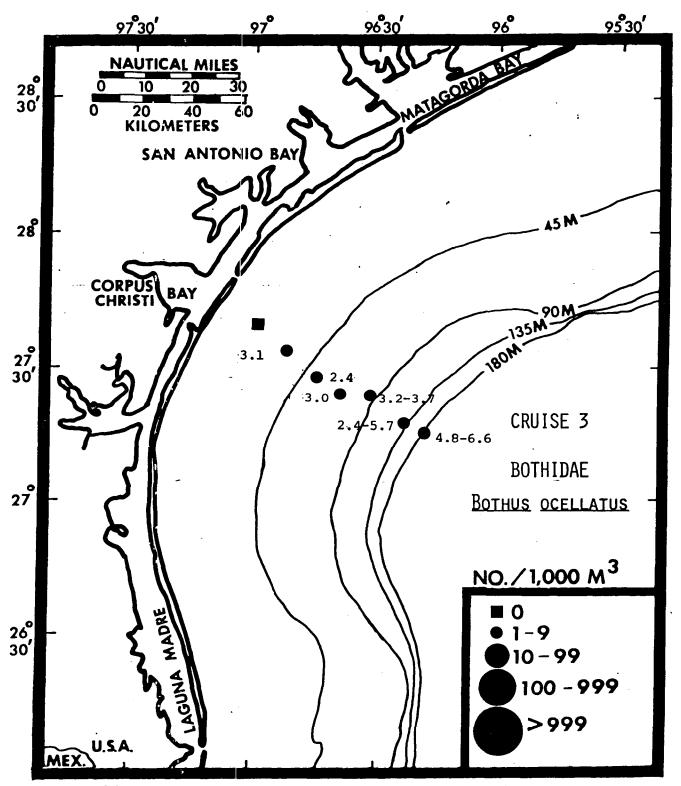


Figure 56. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 3.

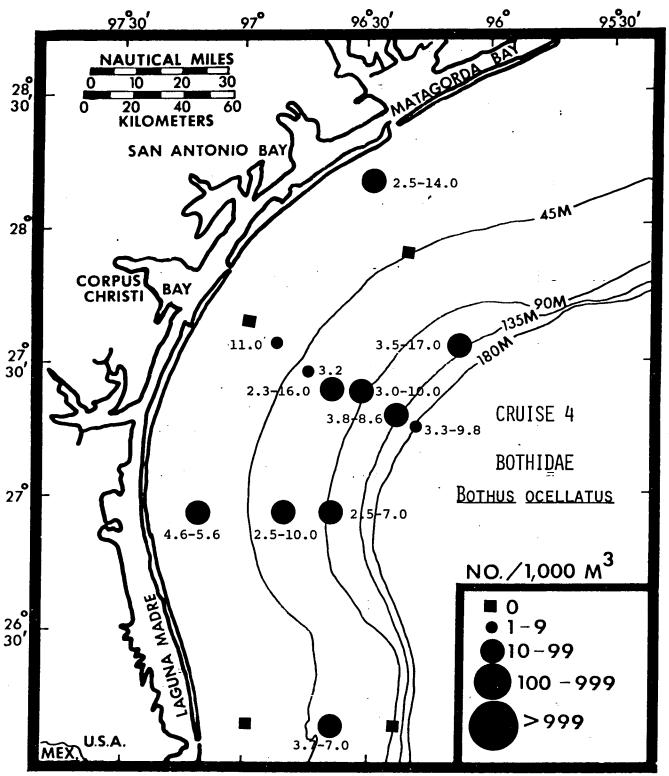


Figure 57. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 4.

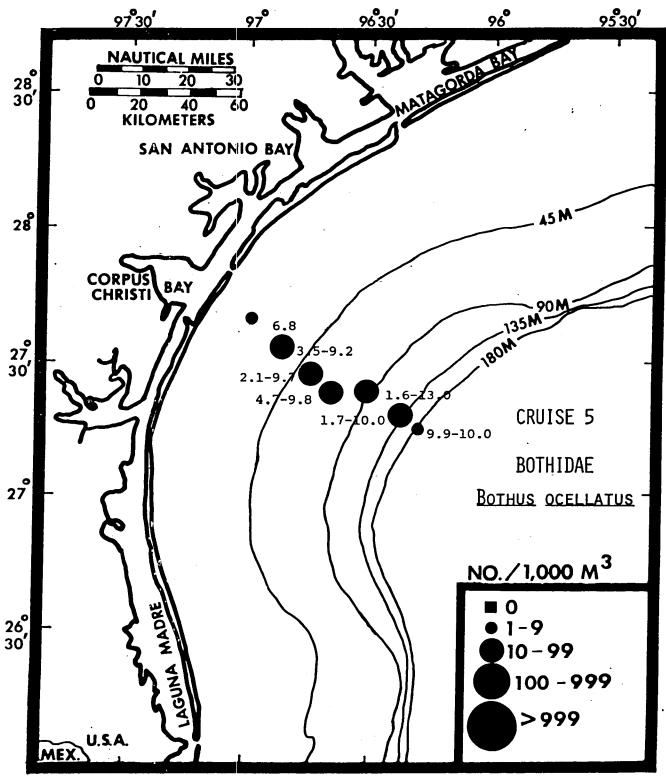


Figure 58. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 5.

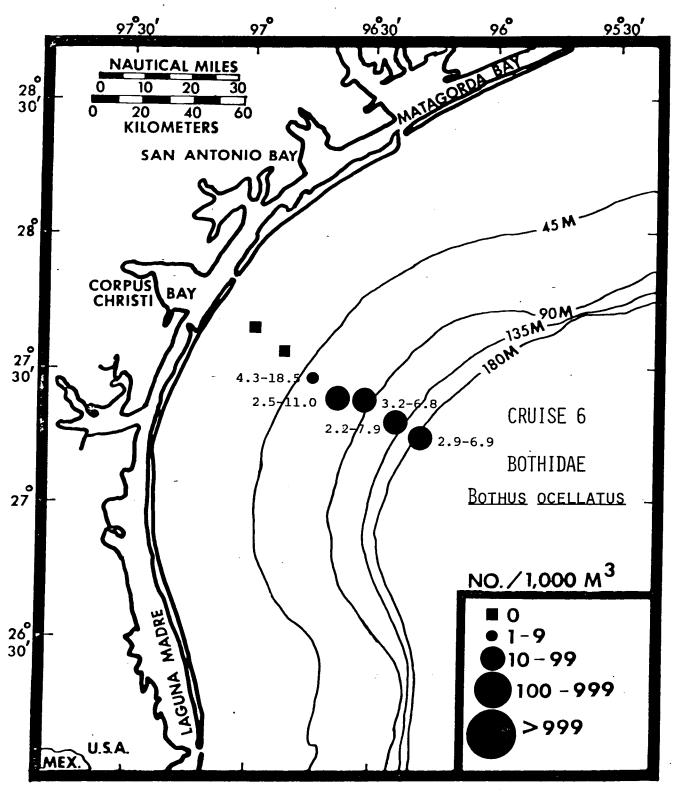


Figure 59. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 6.

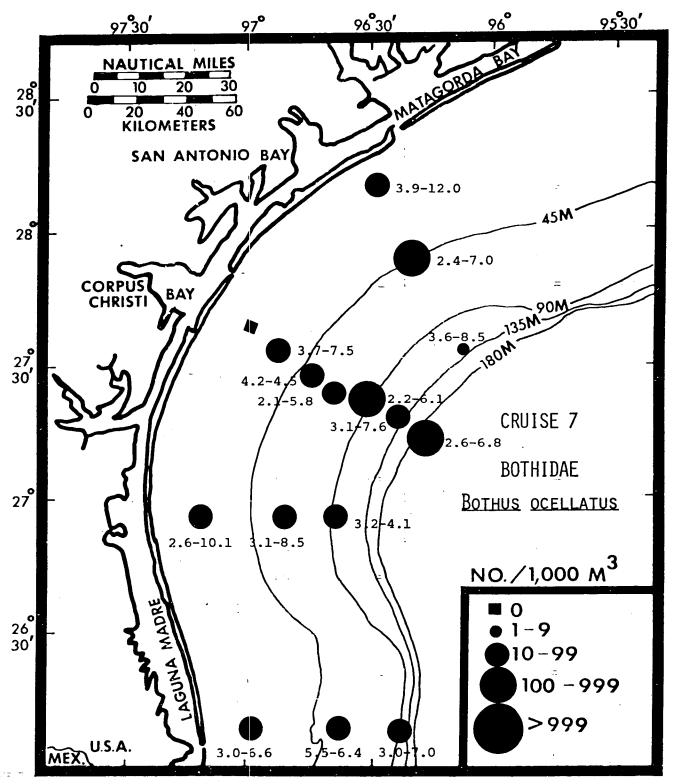


Figure 60. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 7.

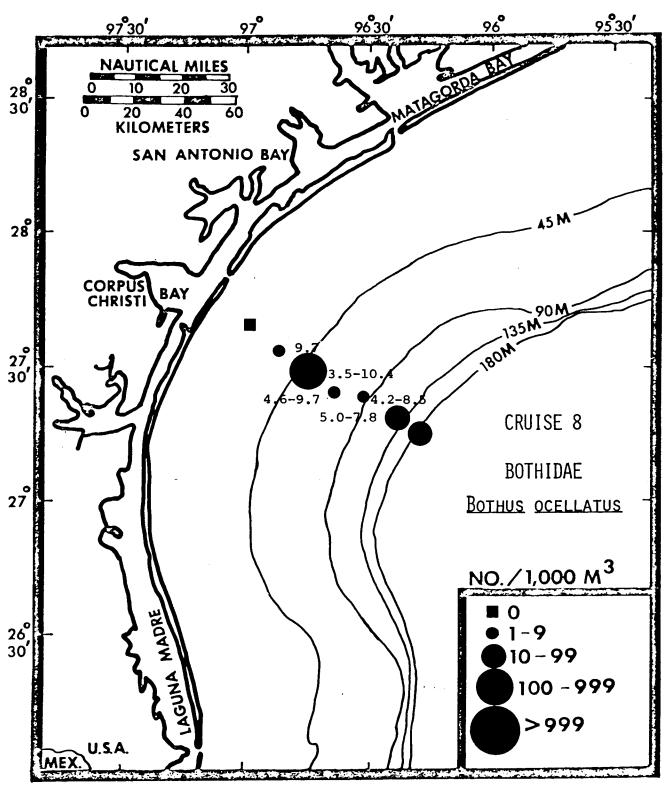


Figure 61. Distribution, abundance and size range (SL) in mm of Bothus ocellatus larvae during Cruise 8.

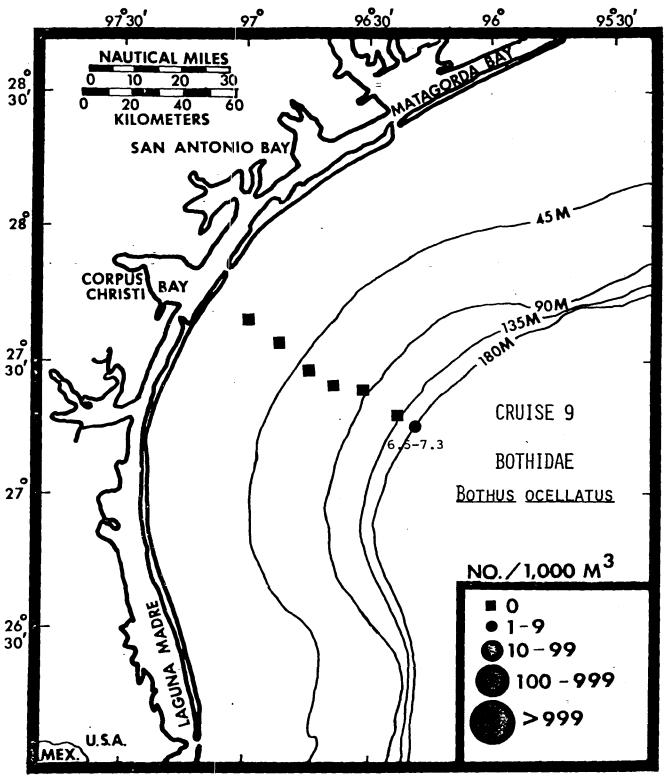


Figure 62. Distribution, abundance and size range (SL) in mm of Bothus occilatus larvae during Cruise 9.

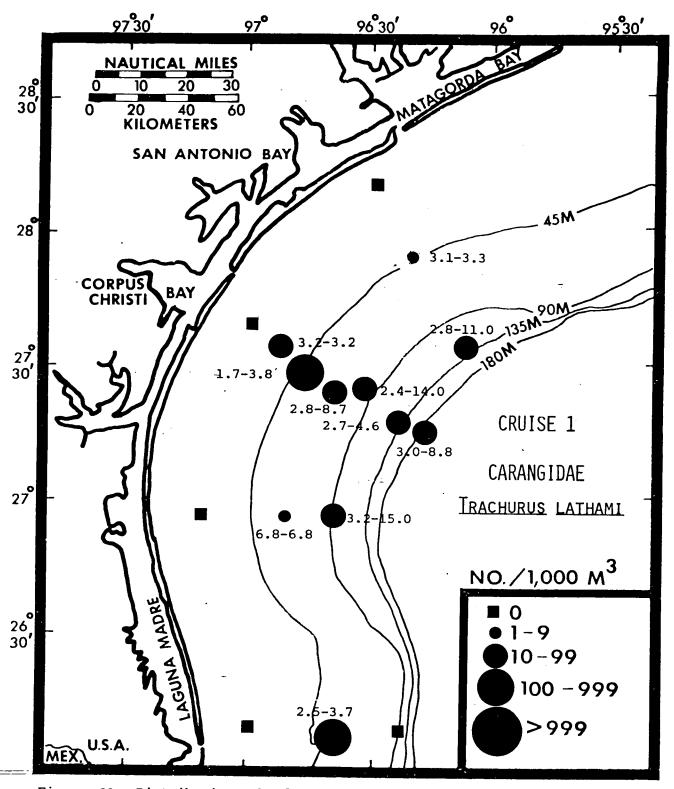


Figure 63. Distribution, abundance and size range (SL) in mm of <a href="Trachurus lathami">Trachurus lathami</a> larvae during Cruise 1.

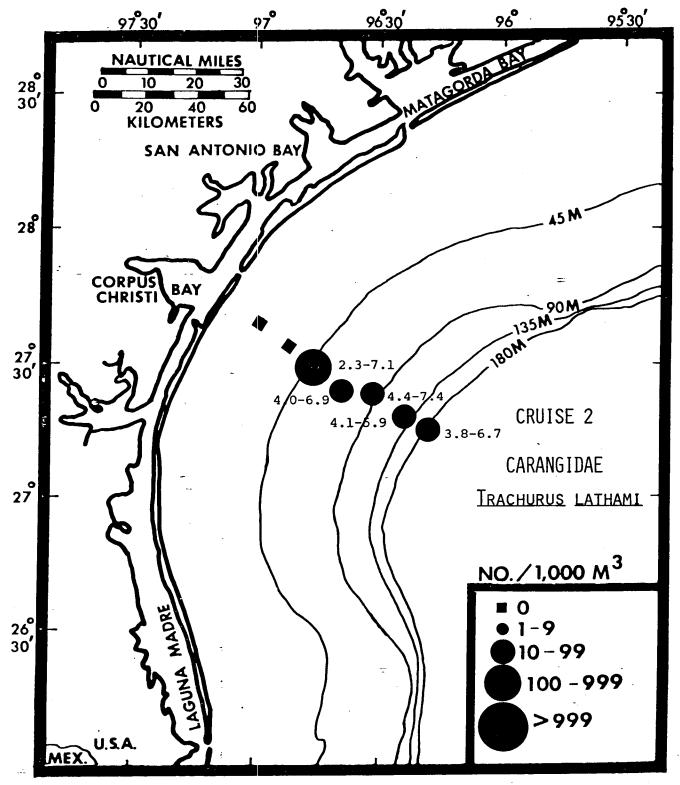


Figure 64. Distribution, abundance and size range (SL) in mm of <a href="Trachurus lathami">Trachurus lathami</a> larvae during Cruise 2.

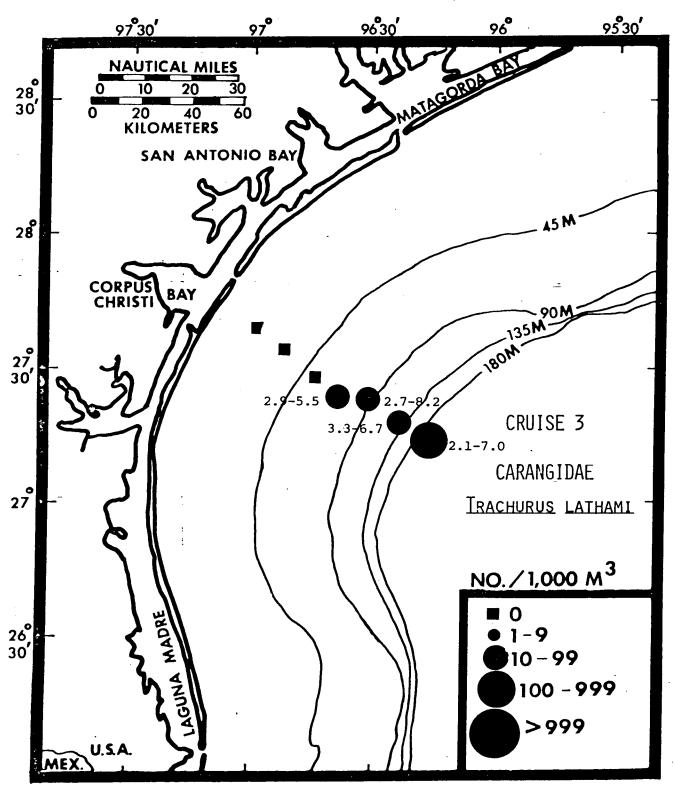


Figure 65. Distribution, abundance and size range (SL) in mm of <a href="Trachurus lathami">Trachurus lathami</a> larvae during Cruise 3.

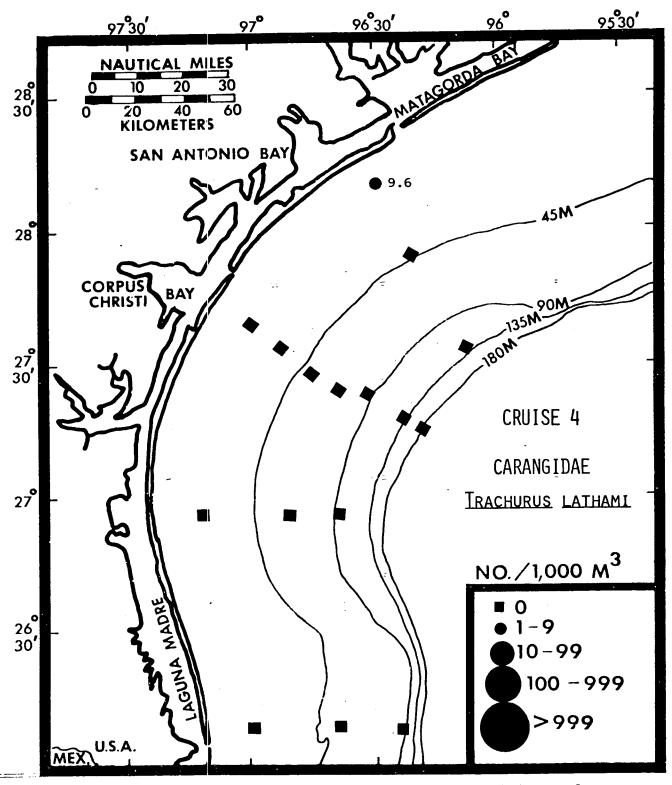


Figure 66. Distribution, abundance and size range (SL) in mm of Trachurus lathami larvae during Cruise 4.

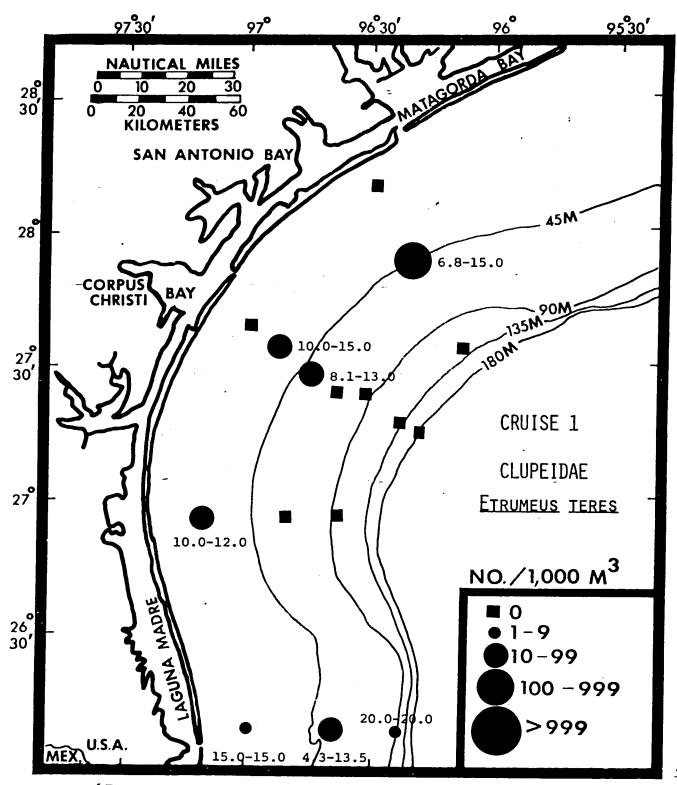


Figure 67. Distribution, abundance and size range (SL) in mm of <a href="Etrumeus teres">Etrumeus teres</a> larvae during Cruise 1.

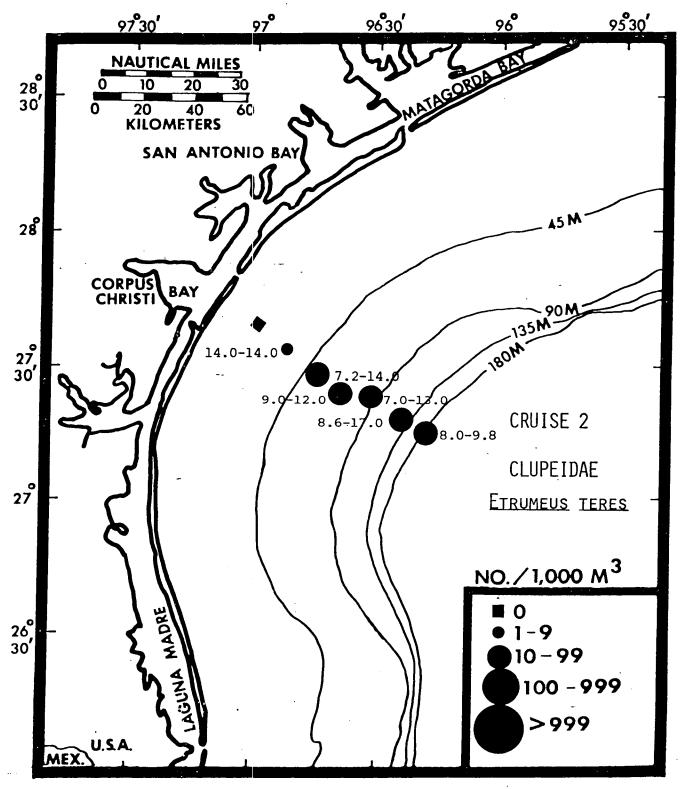


Figure 68. Distribution, abundance and size range (SL) in mm of Etrumeus teres larvae during Cruise 2.

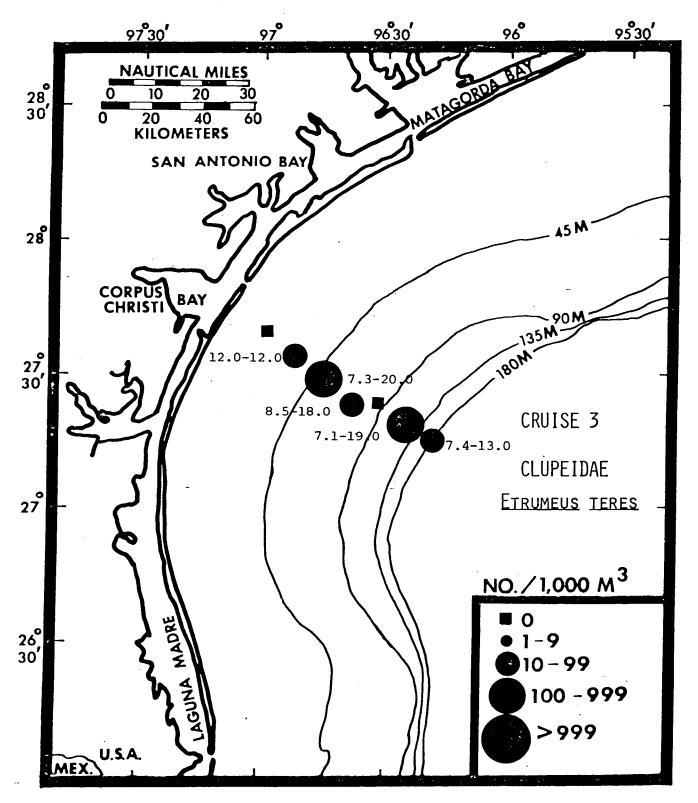


Figure 69. Distribution, abundance and size range (SL) in mm of <a href="Etrumeus teres">Etrumeus teres</a> larvae during Cruise 3.

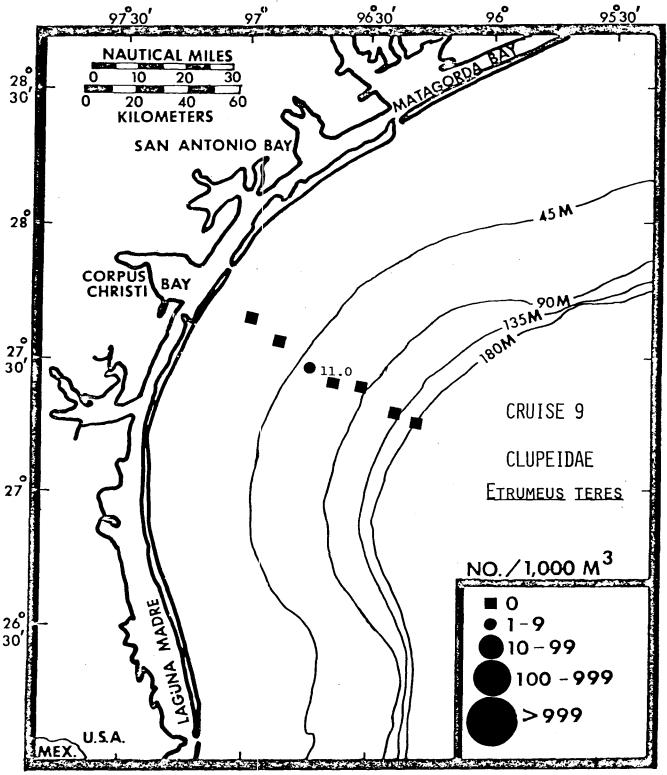


Figure 70. Distribution, abundance and size range (SL) in mm of <a href="Etrumeus teres">Etrumeus teres</a> larvae during Cruise 9.

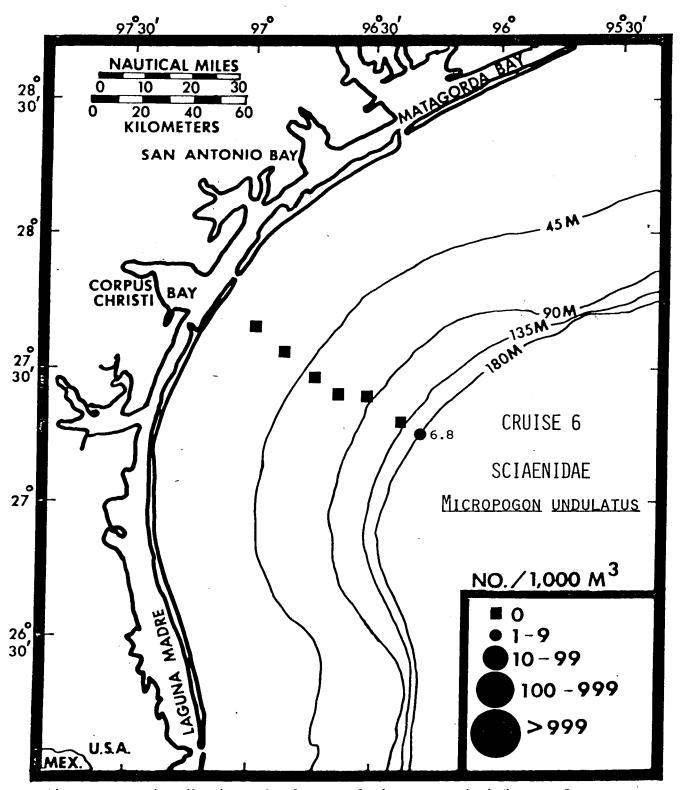


Figure 71. Distribution, abundance and size range (SL) in mm of Micropogon undulatus larvae during Cruise 6.

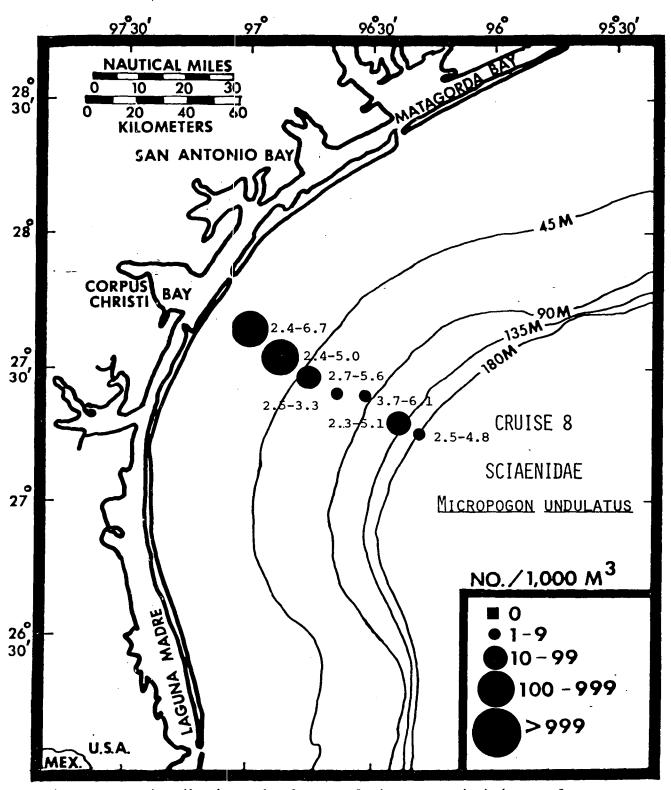


Figure 72. Distribution, abundance and size range (SL) in mm of Micropogon undulatus larvae during Cruise 8.

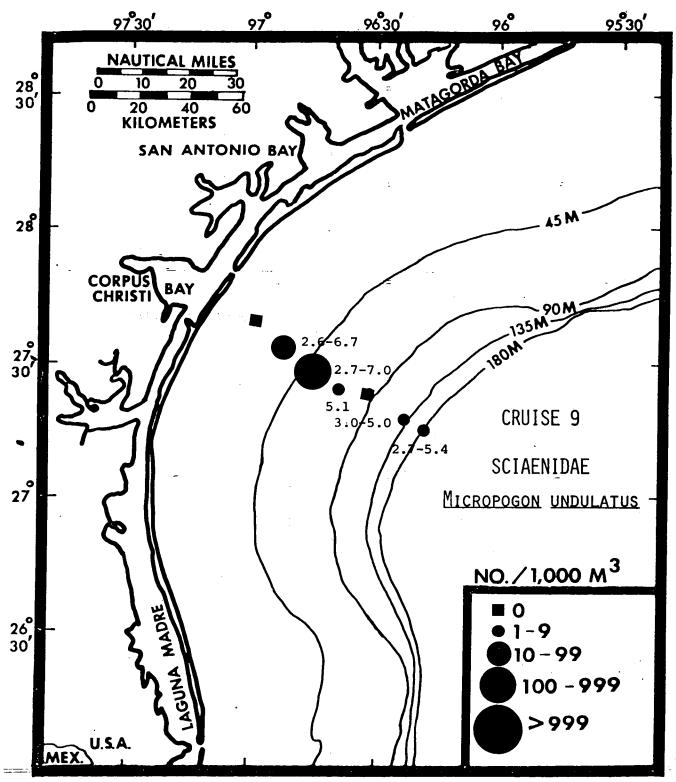


Figure 73. Distribution, abundance and size range (SL) in mm of Micropogon undulatus larvae during Cruise 9.

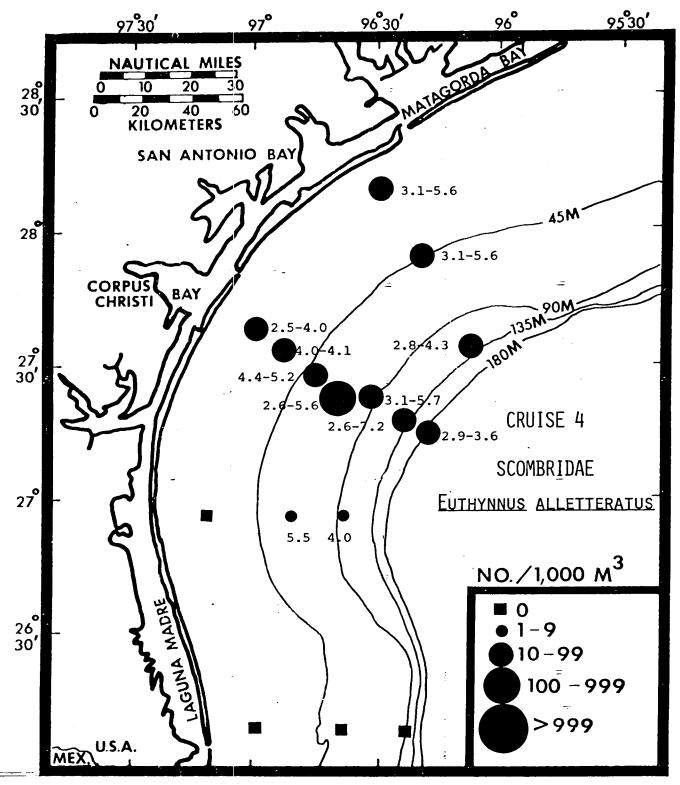


Figure 74. Distribution, abundance and size range (SL) in mm of <a href="Euthynnus">Euthynnus</a> alletteratus larvae during Cruise 4.

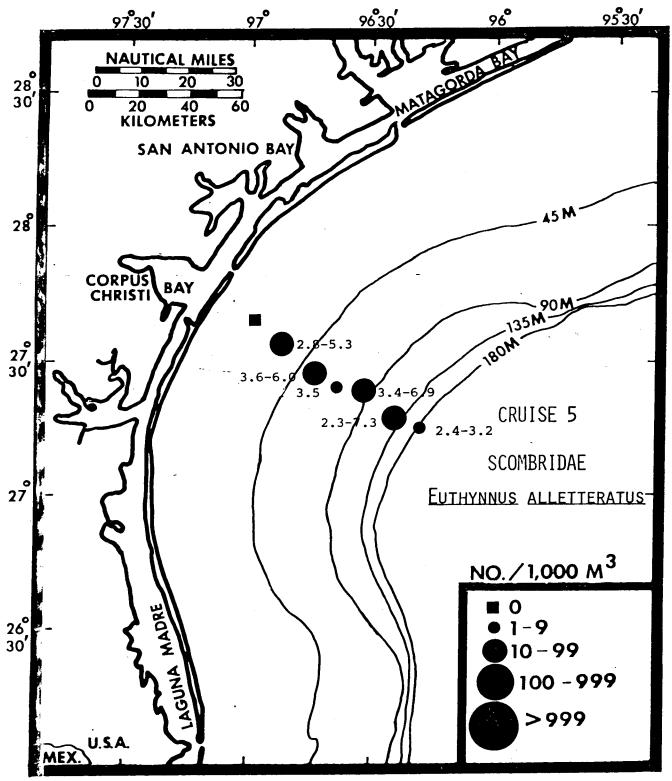


Figure 75. Distribution, abundance and size range (SL) in mm of Euthynnus alletteratus larvae during Cruise 5.

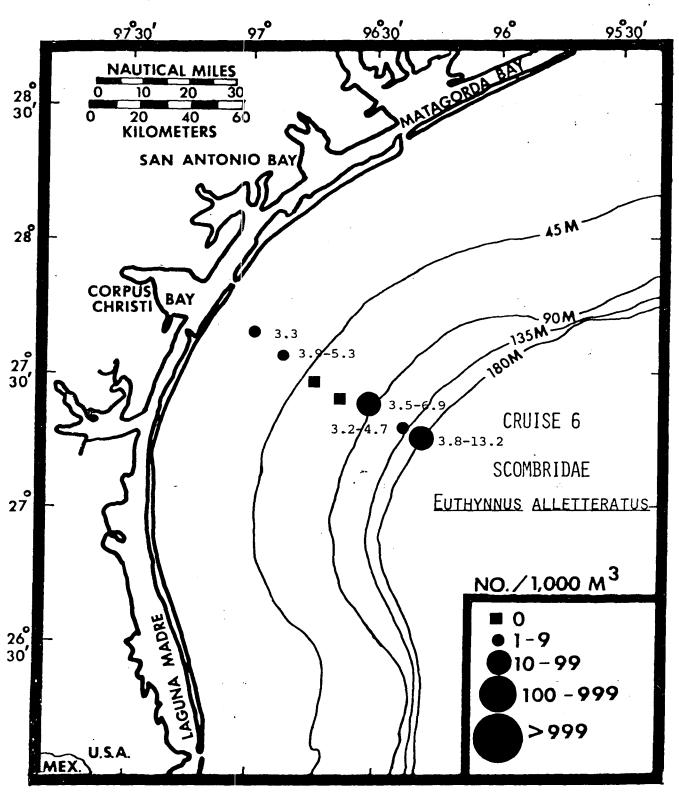


Figure 76. Distribution, abundance and size range (SL) in mm of Euthynnus alletteratus larvae during Cruise 6.

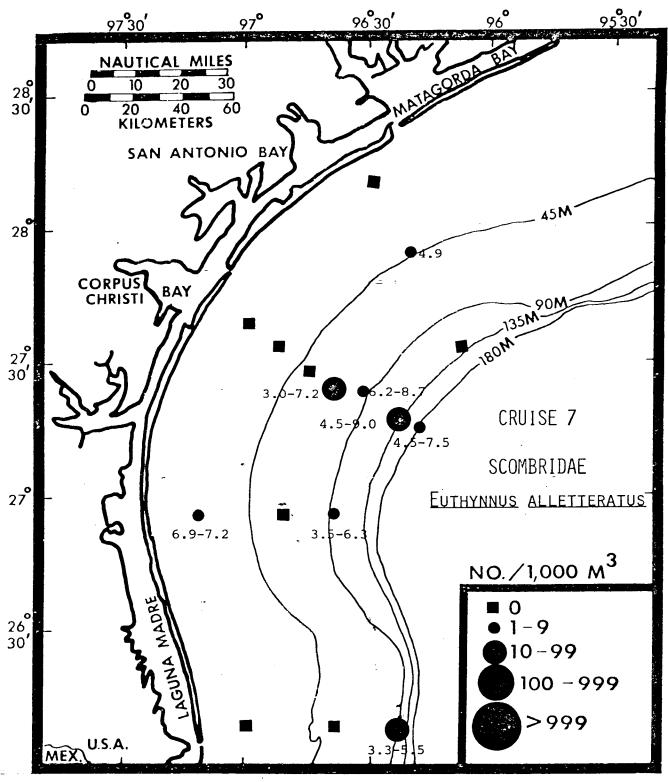


Figure 77. Distribution, abundance and size range (SL) in mm of Euthynnus alletteratus larvae during Cruise 7.

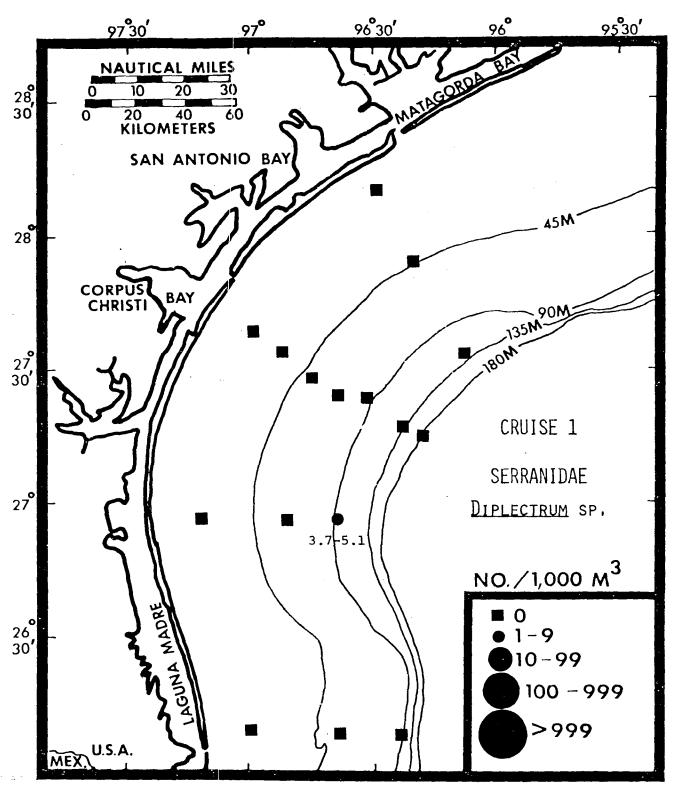


Figure 78. Distribution, abundance and size range (SL) in mm of <a href="Diplectrum">Diplectrum</a> sp. larvae during Cruise 1.

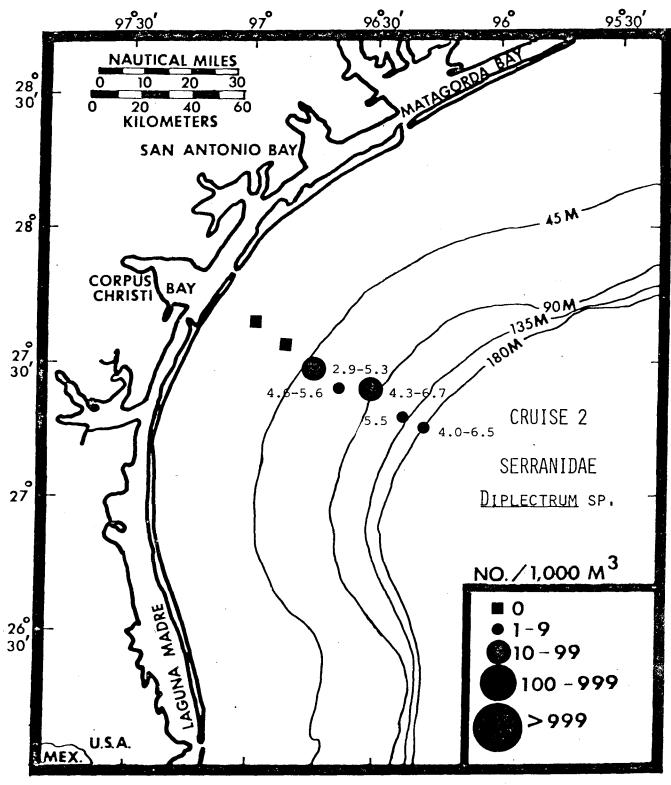


Figure 79. Distribution, abundance and size range (SL) in mm of Diplectrum sp. larvae during Cruise 2.

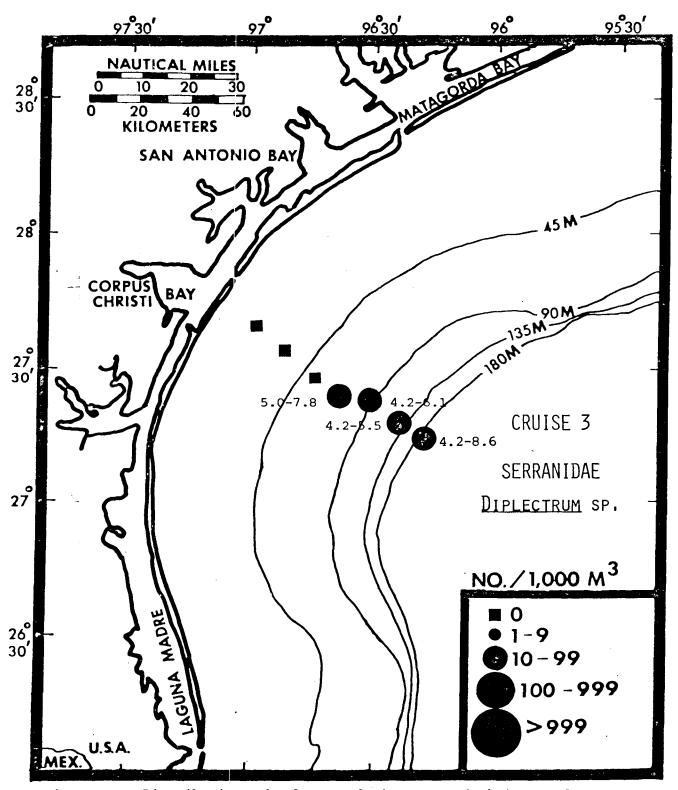


Figure 80. Distribution, abundance and size range (SL) in mm of <a href="Diplectrum">Diplectrum</a> sp. larvae during Cruise 3.

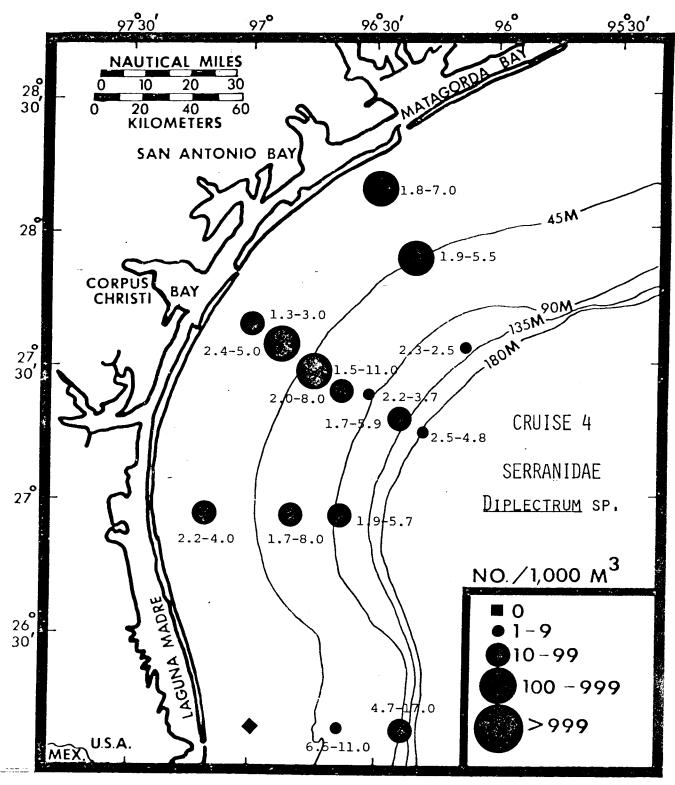


Figure 81. Distribution, abundance and size range (SL) in mm of <a href="Diplectrum">Diplectrum</a> sp. larvae during Cruise 4.

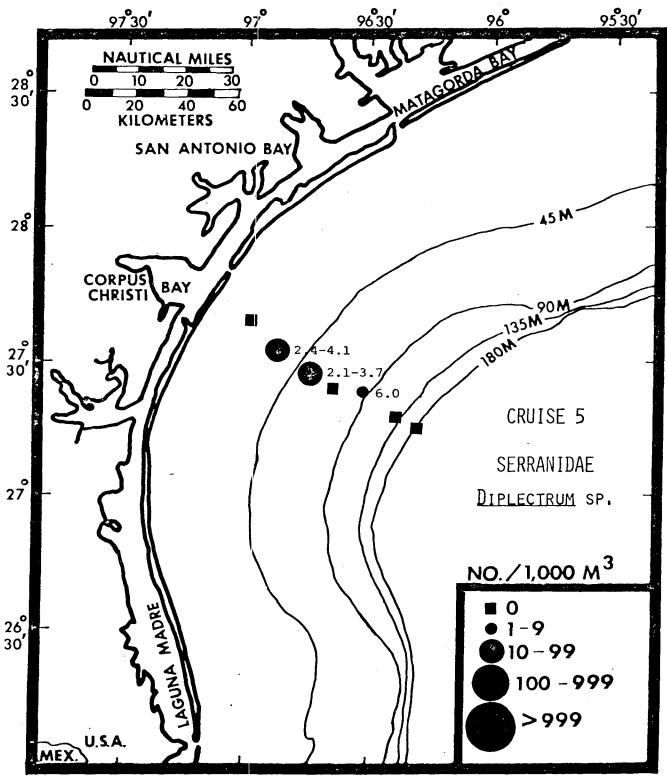


Figure 82. Distribution, abundance and size range (SL) in mm of <a href="Diplectrum">Diplectrum</a> sp. larvae during Cruise 5.

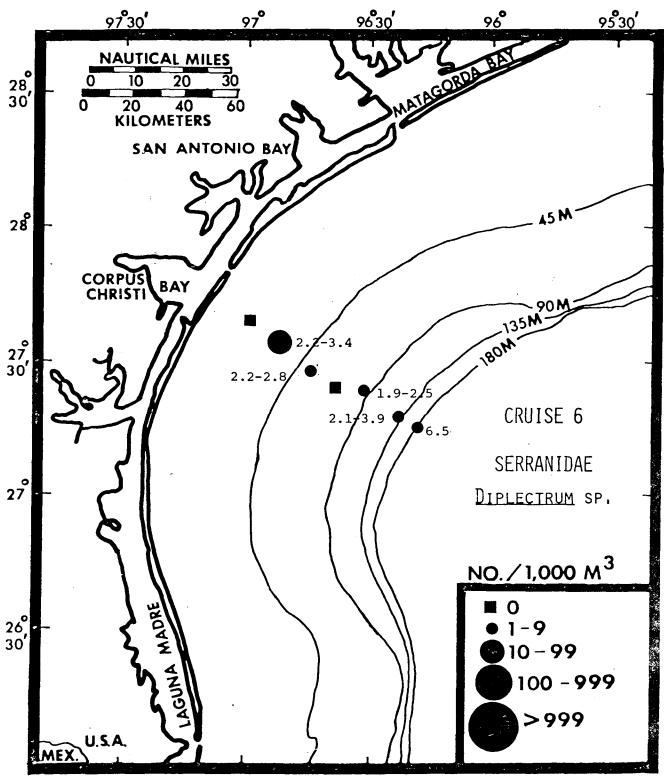


Figure 83. Distribution, abundance and size range (SL) in mm of Diplectrum sp. larvae during Cruise 6.

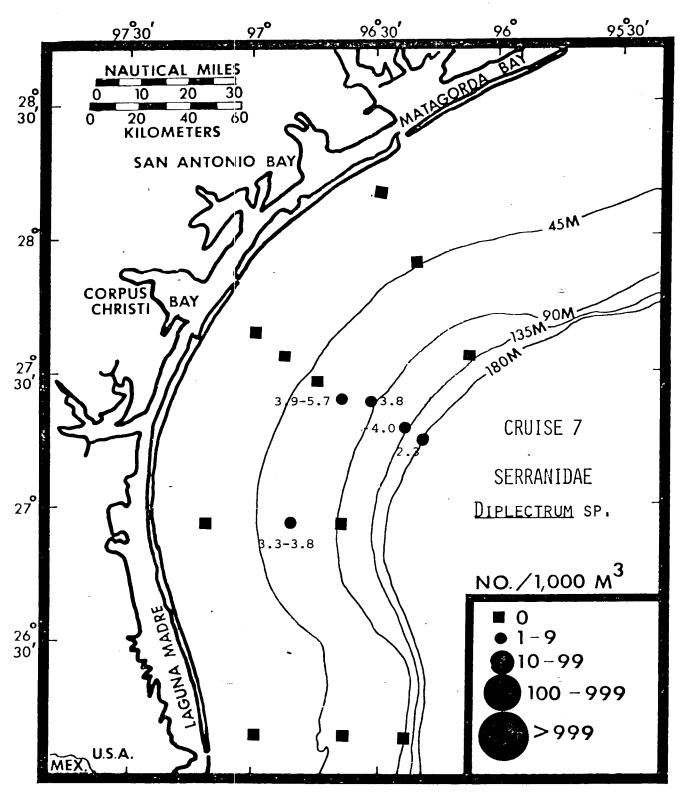


Figure 84. Distribution, abundance and size range (SL) in mm of Diplectrum sp. larvae during Cruise 7.

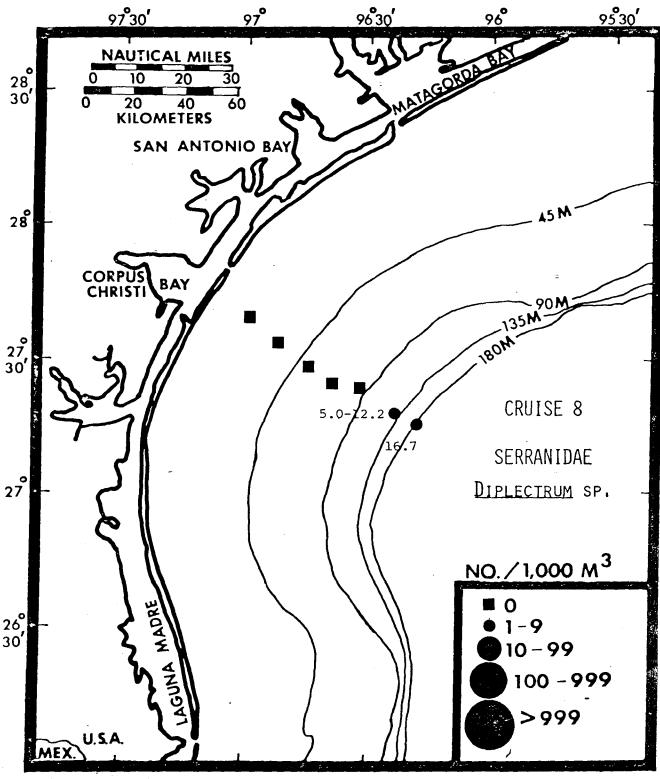


Figure 85. Distribution, abundance and size range (SL) in mm of Diplectrum sp. larvae during Cruise 8.

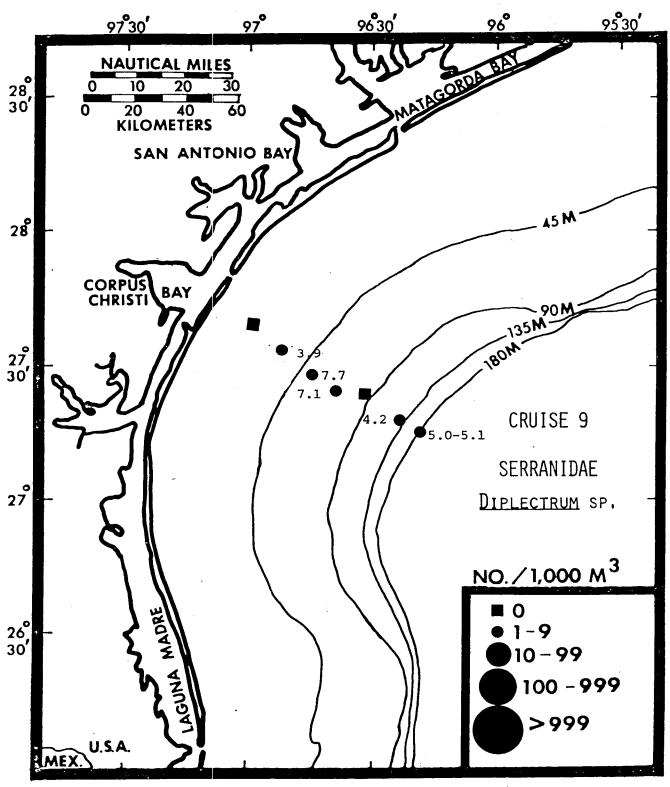


Figure 86. Distribution, abundance and size range (SL) in mm of Diplectrum sp. larvae during Cruise 9.

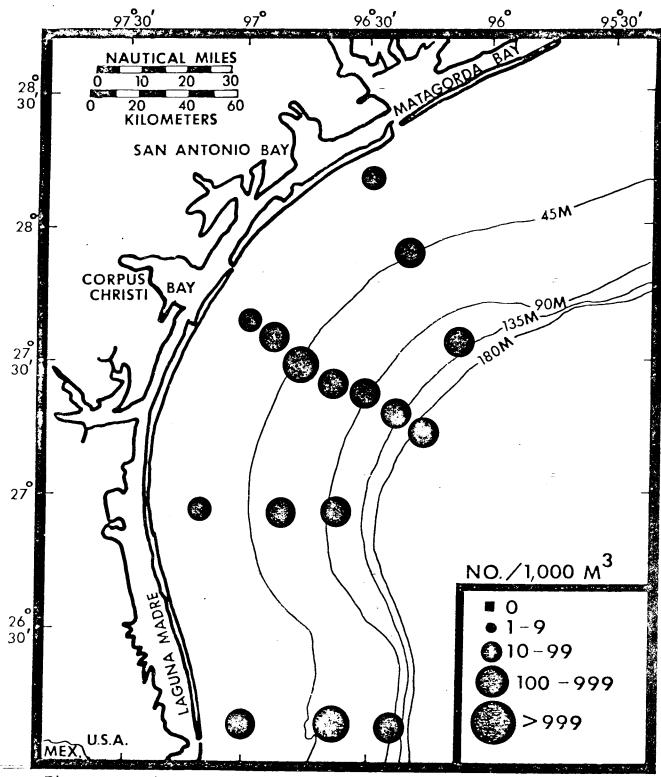


Figure 87. Distribution and abundance of fish larvae during Cruise 1 taken from  $505\mu$  samples.

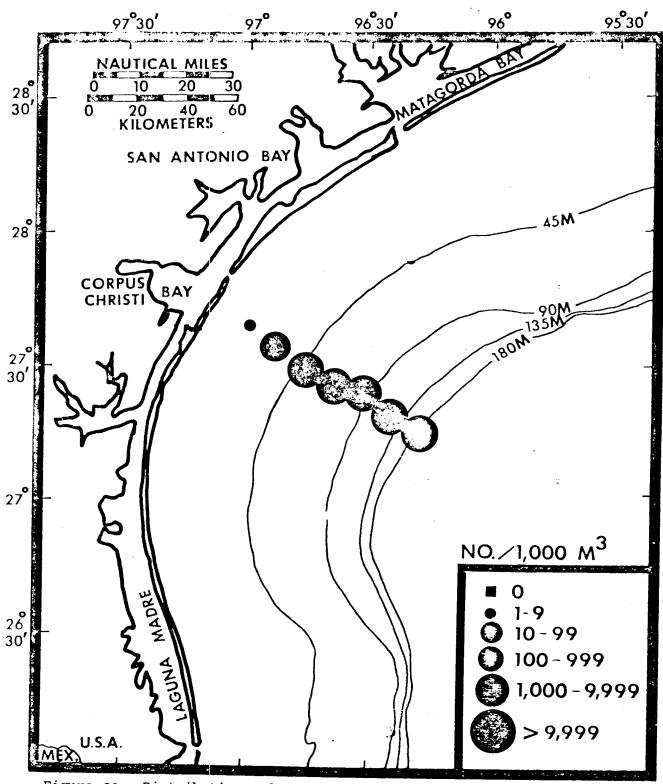


Figure 88. Distribution and abundance of fish larvae during Cruise 2 taken from  $505\mu$  samples.

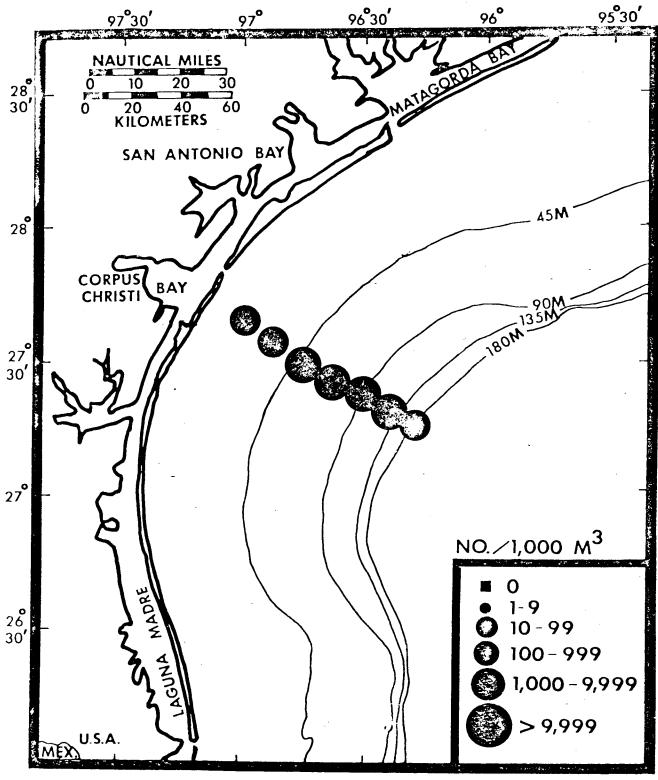


Figure 89. Distribution and abundance of fish larvae during Cruise 3 taken from  $505\mu$  samples.

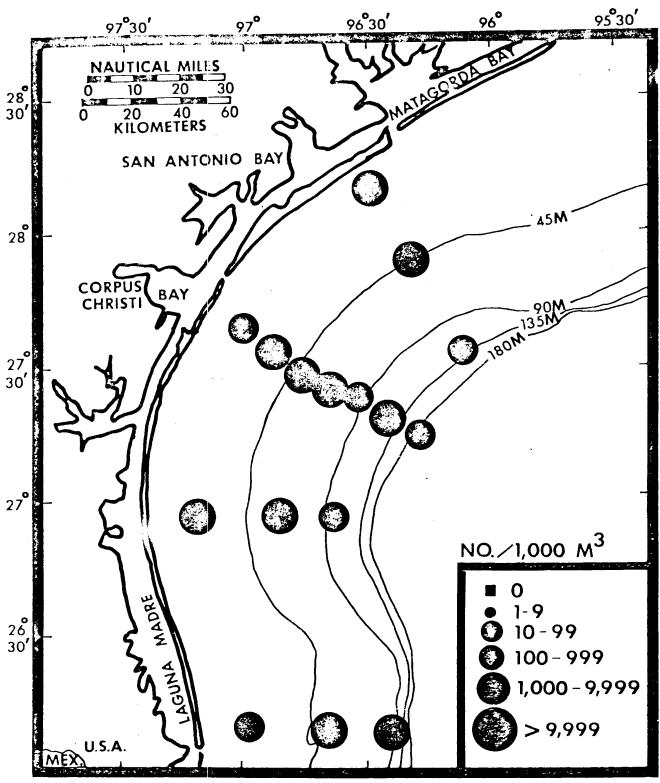


Figure 90. Distribution and abundance of fish larvae during Cruise 4 taken from  $505\mu$  samples.

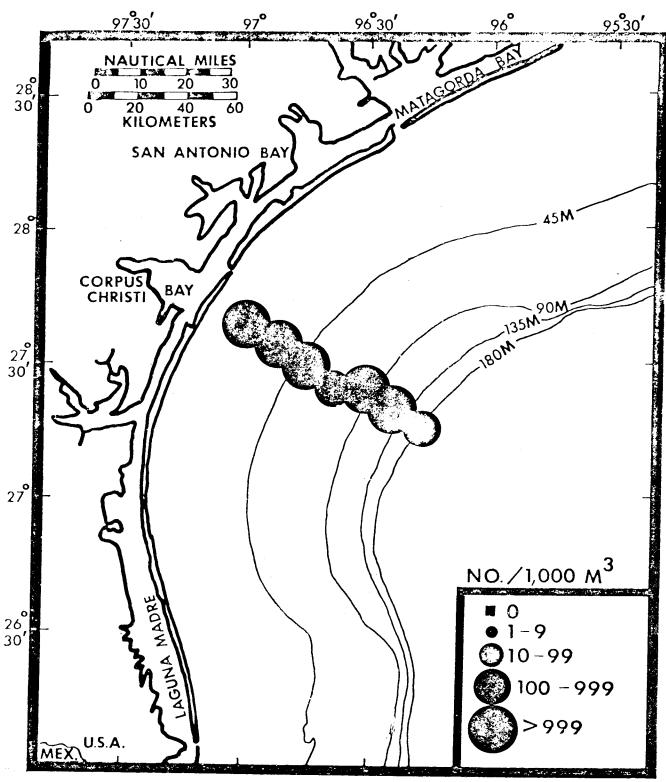


Figure 91. Distribution and abundance of fish larvae during Cruise 5 taken from  $505\mu$  samples.

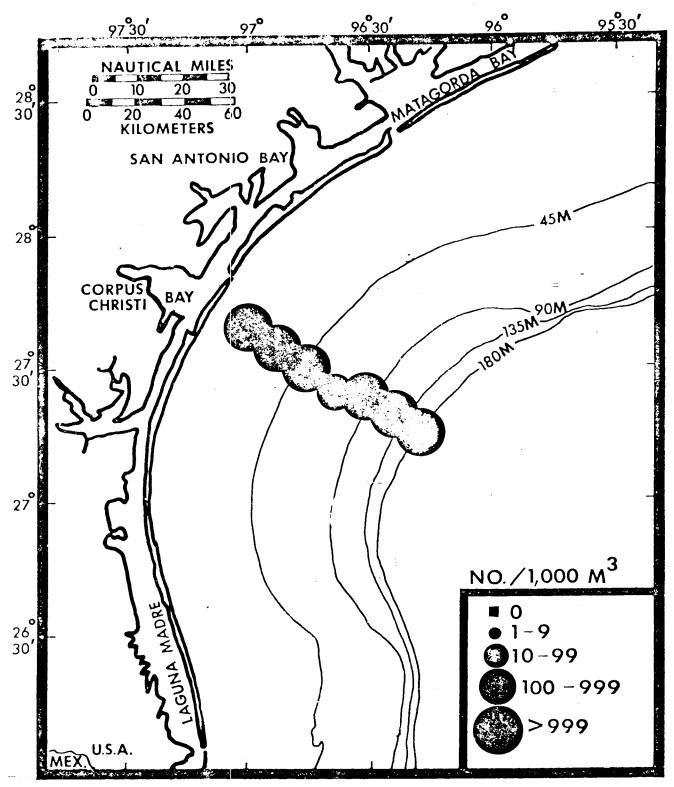


Figure 92. Distribution and abundance of fish larvae during Cruise 6 taken from 505µ samples.

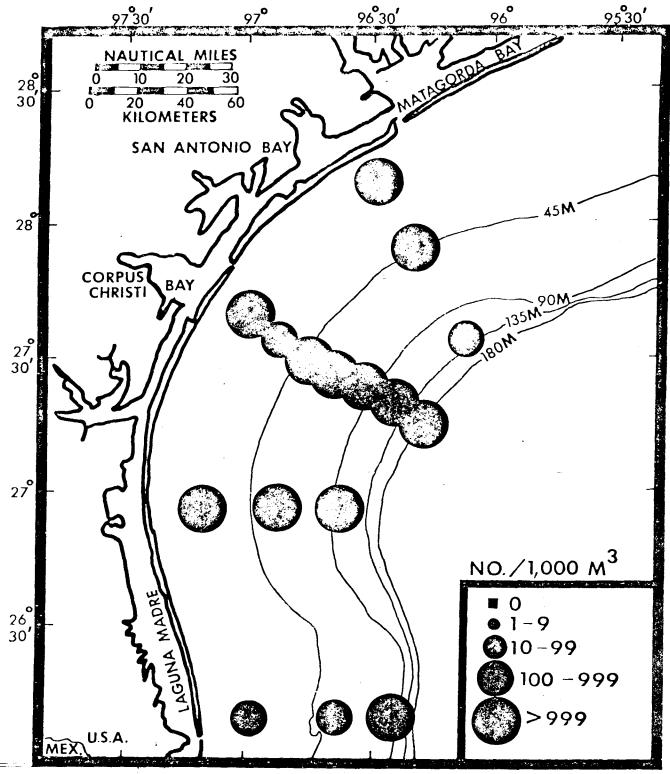


Figure 93. Distribution and abundance of fish larvae during Cruise 7 taken from  $505\mu$  samples.

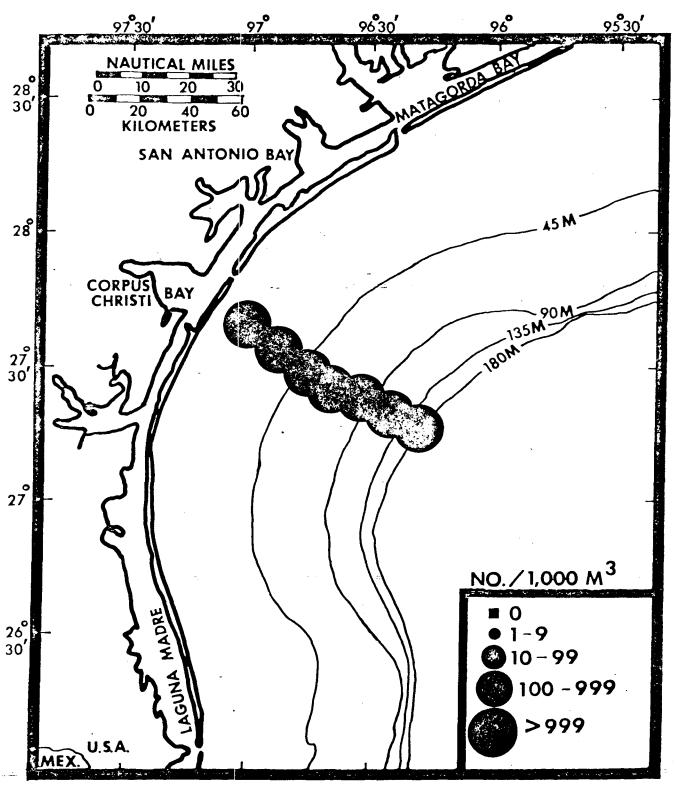


Figure 94. Distribution and abundance of fish larvae during Cruise 8 taken from 505µ samples.

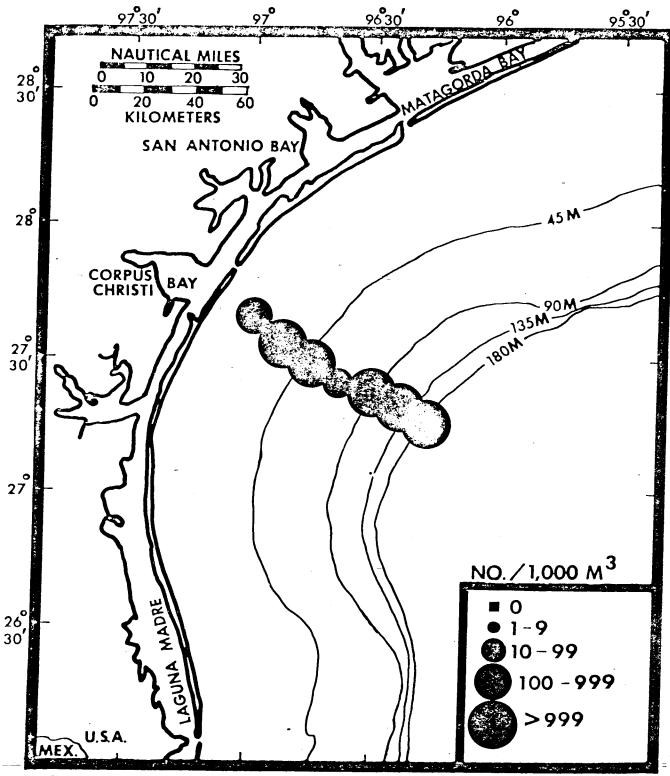


Figure 95. Distribution and abundance of fish larvae during Cruise 9 taken from 505µ samples.

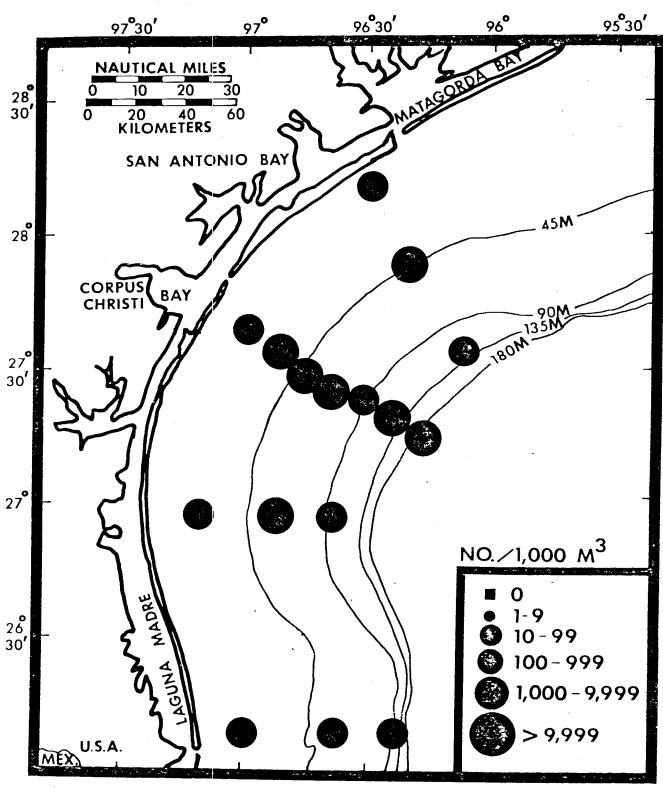


Figure 96. Distribution and abundance of fish eggs during Cruise 1 taken from 333 $\mu$  samples.

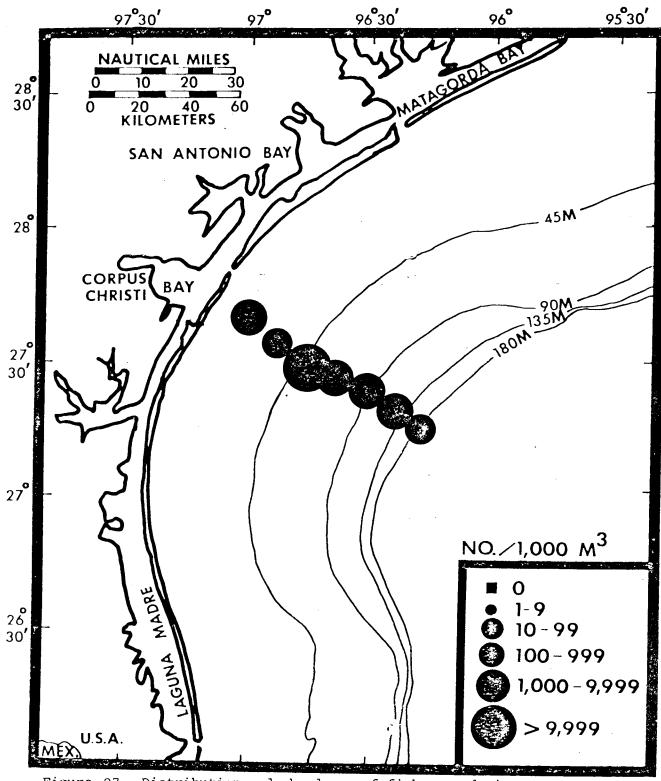


Figure 97. Distribution and abundance of fish eggs during Cruise 2 taken from 333µ samples.

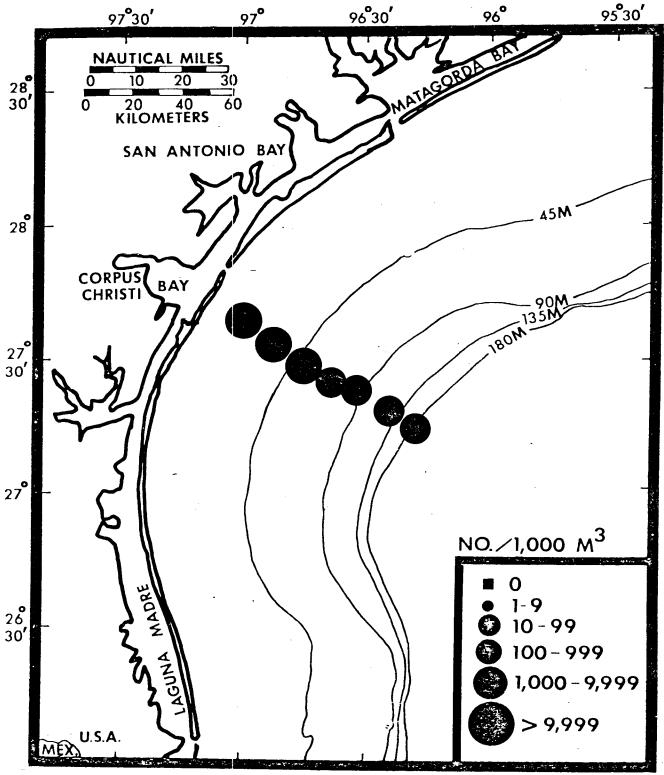


Figure 98. Distribution and abundance of fish eggs during Cruise 3 taken from 333 $\mu$  samples.

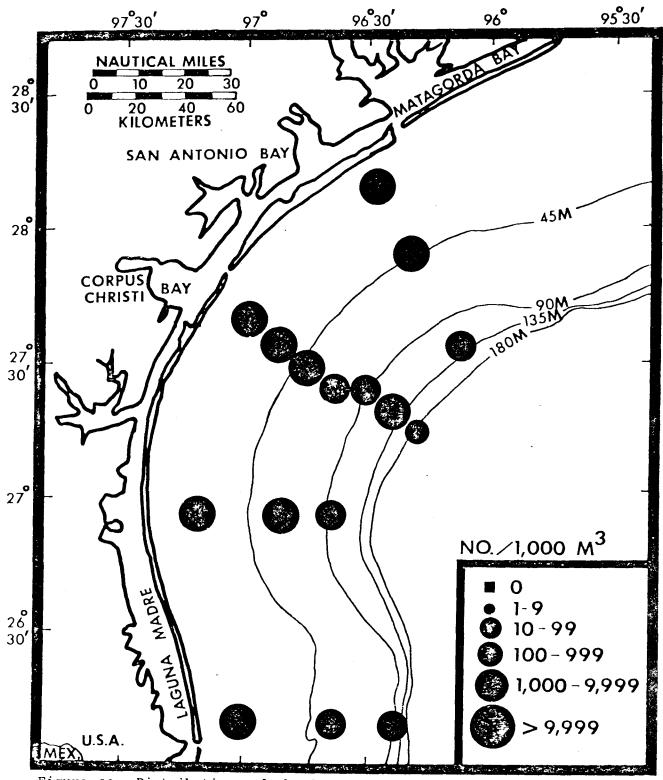


Figure 99. Distribution and abundance of fish eggs during Cruise 4 taken from 333µ samples.

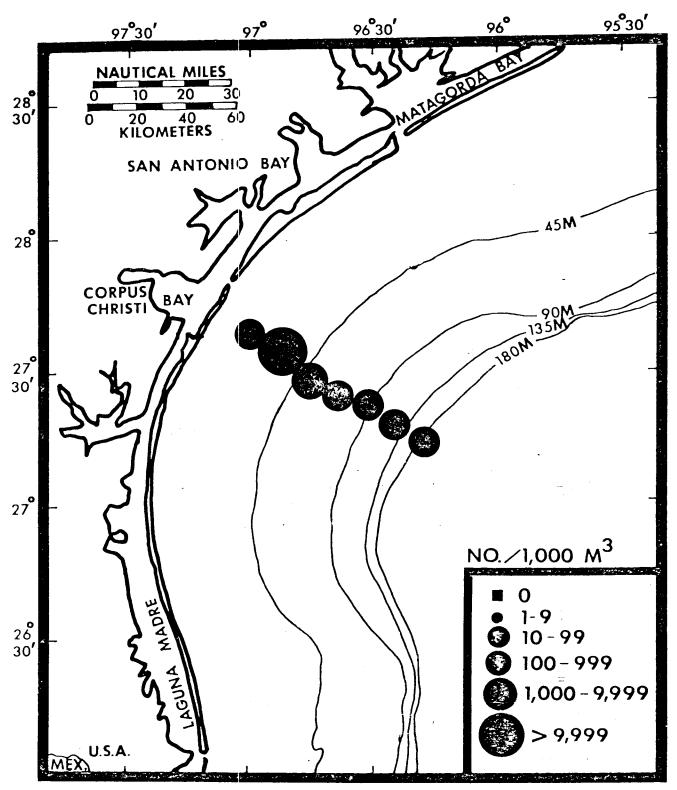


Figure 100. Distribution and abundance of fish eggs during Cruise 5 taken from 333 $\mu$  samples.

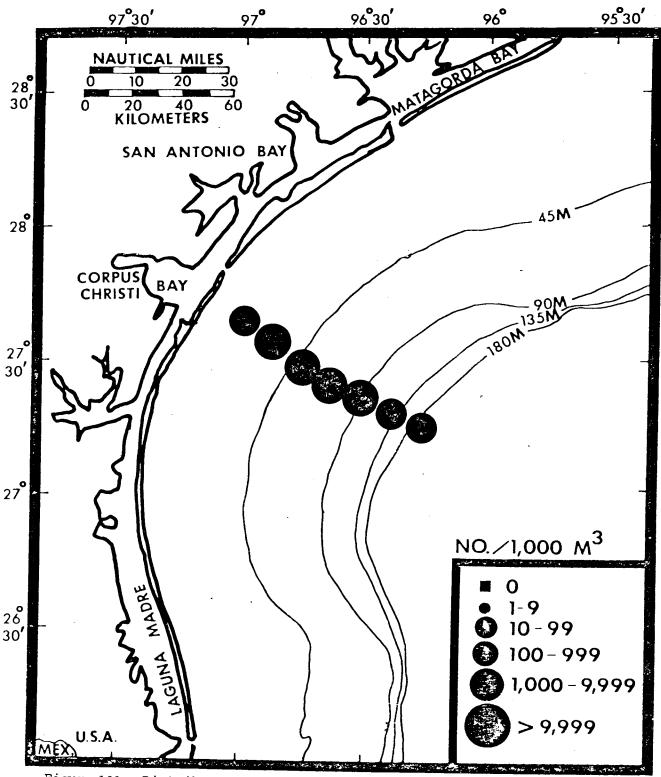


Figure 101. Distribution and abundance of fish eggs during Cruise 6 taken from 333µ samples.

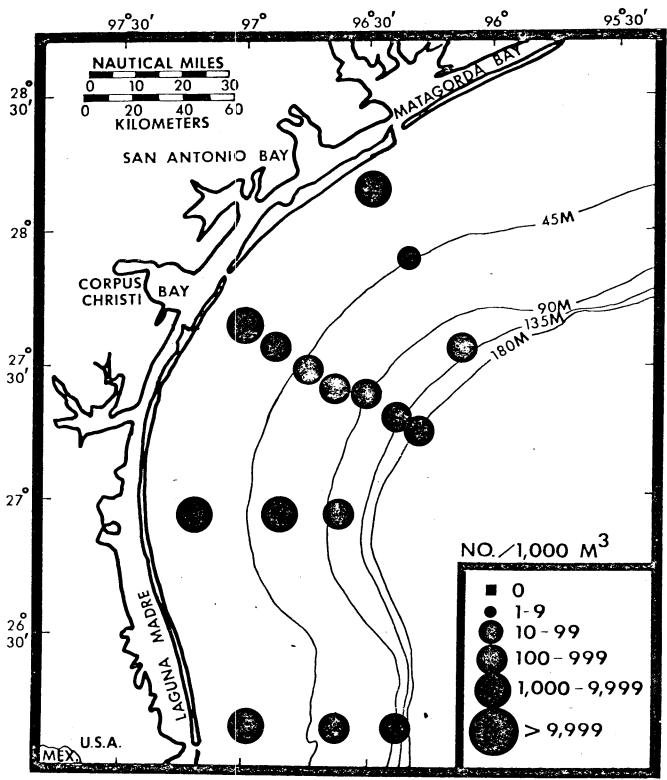


Figure 102 Distribution and abundance of fish eggs during Cruise 7 taken from 333 $\mu$  samples.

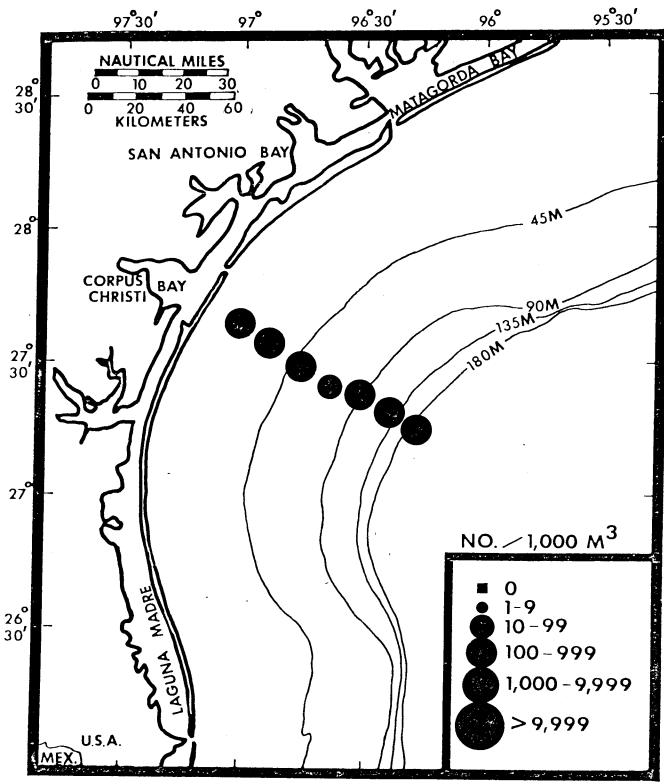


Figure 103. Distribution and abundance of fish eggs during Cruise 8 taken from 333µ samples.

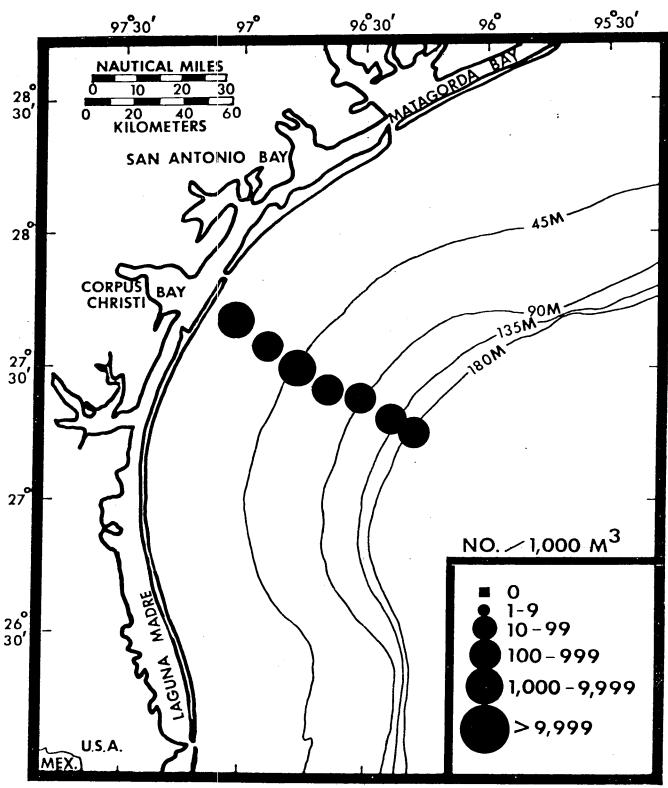


Figure 104. Distribution and abundance of fish eggs during Cruise 9 taken from 333 $\mu$  samples.

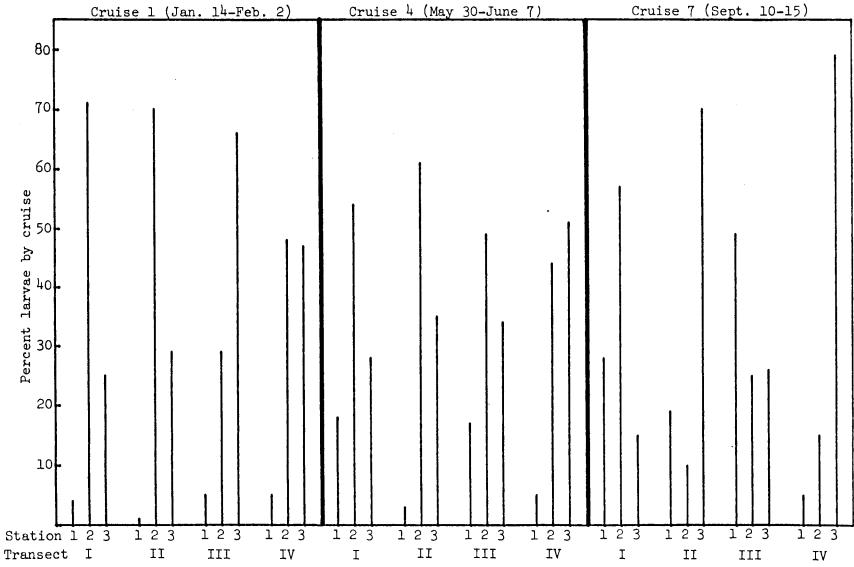


Figure 105. Percent of fish larvae taken from 505  $\mu$  seasonal plankton samples by cruise, transect and station during 1976.

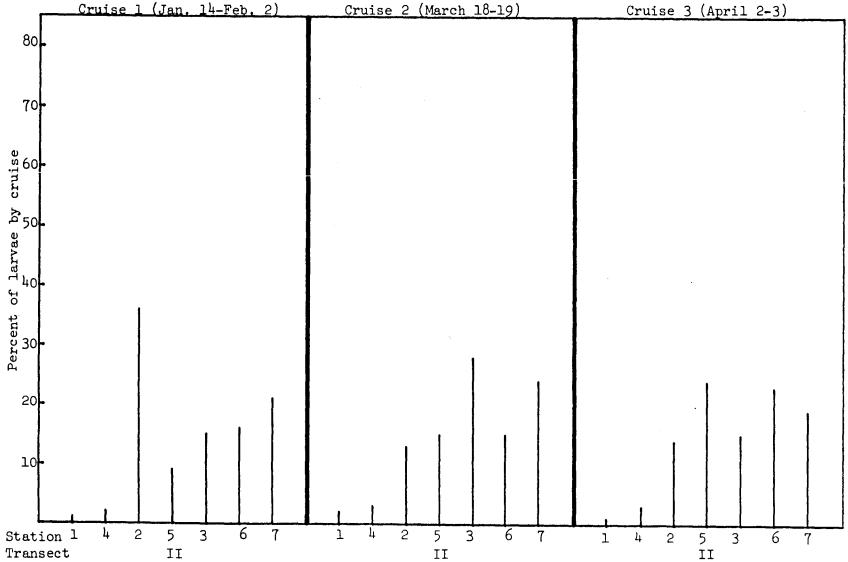


Figure 106. Percent of fish larvae taken from 505  $\mu$  Transect II plankton samples during Cruises 1, 2 and 3 by station during 1976.

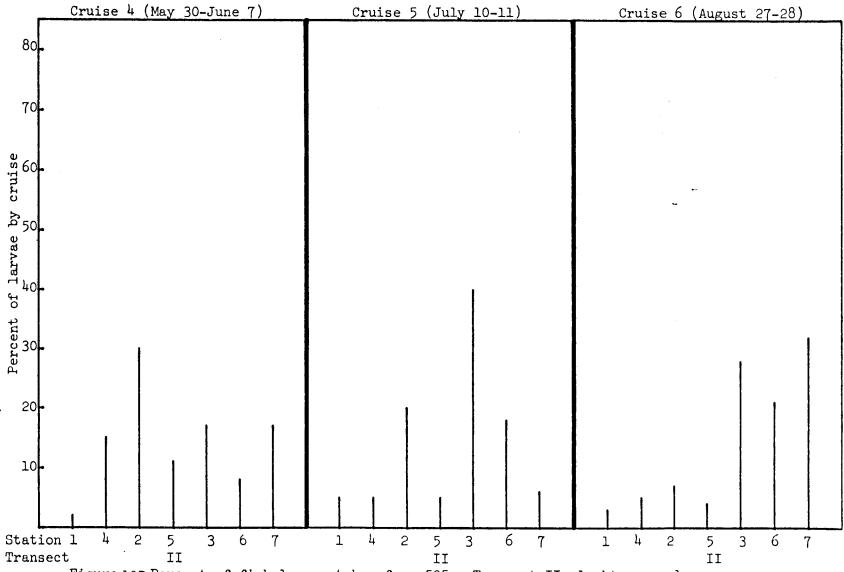


Figure 107 Percent of fish larvae taken from 505  $\mu$  Transect II plankton samples during Cruises 4, 5 and 6 by station during 1976.

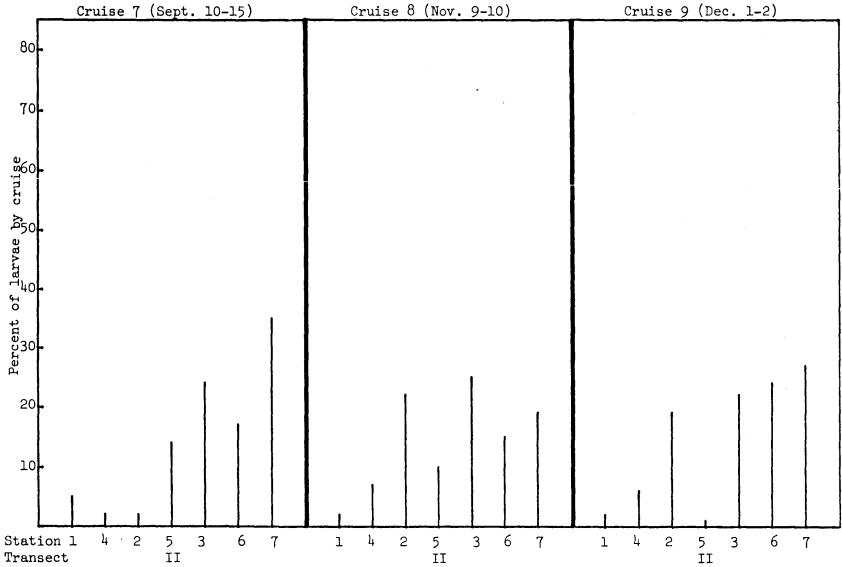
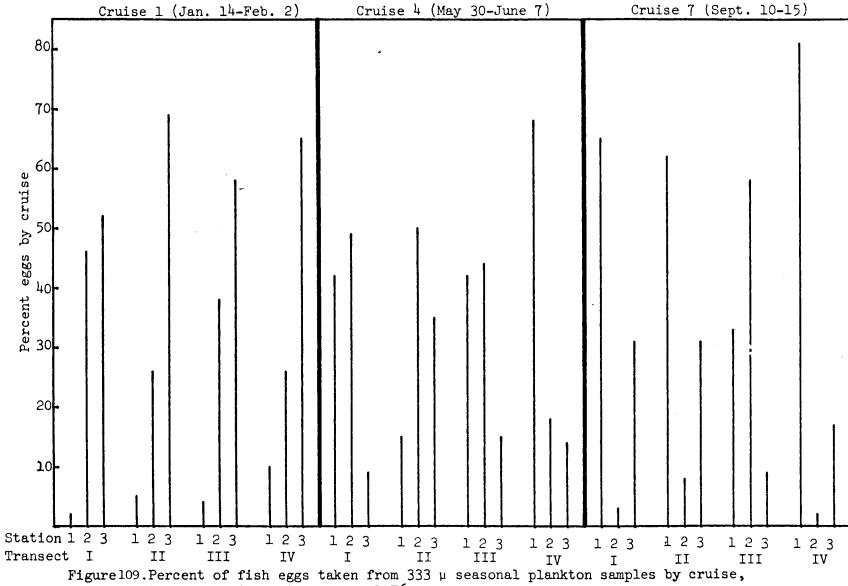


Figure 108 Percent of fish larvae taken from 505  $\mu$  Transect II plankton samples during Cruises 7, 8 and 9 by station during 1976.



transect and station during 1976.

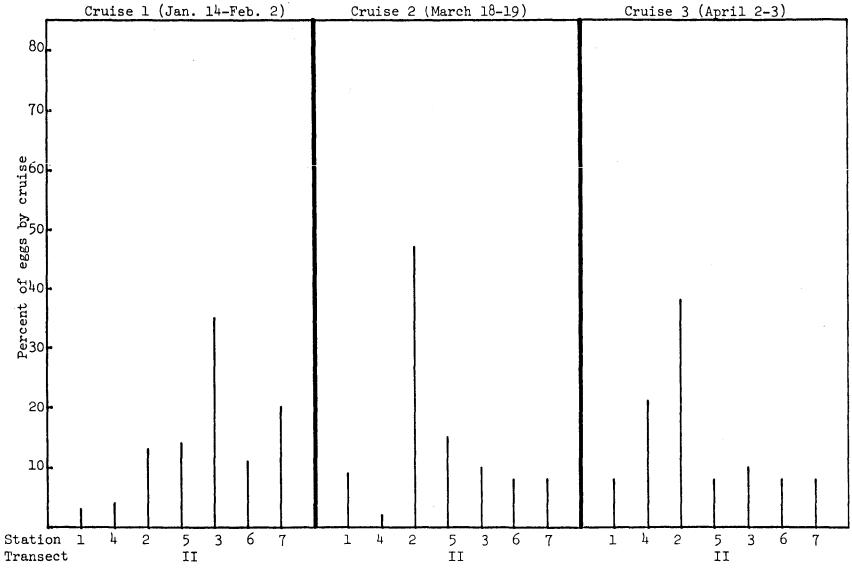


Figure 110. Percent of fish eggs taken from 333  $\mu$  Transect II plankton samples during Cruises 1, 2 and 3 by station during 1976.

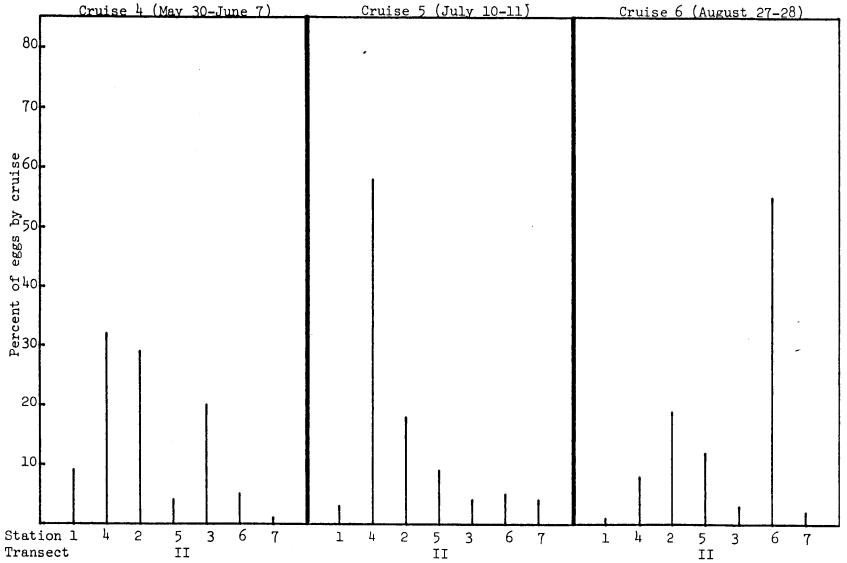


Figure 111Percent of fish eggs taken from 333  $\mu$  Transect II plankton samples during Cruises 4, 5 and 6 by station during 1976.

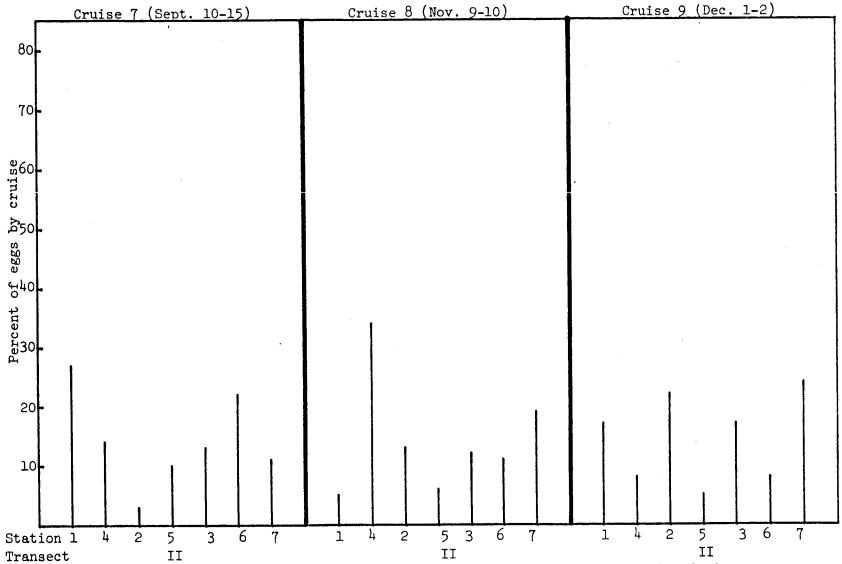


Figure 112 Percent of fish eggs taken from 333 µ Transect II plankton samples during Cruises 7, 8 and 9 by station during 1976.

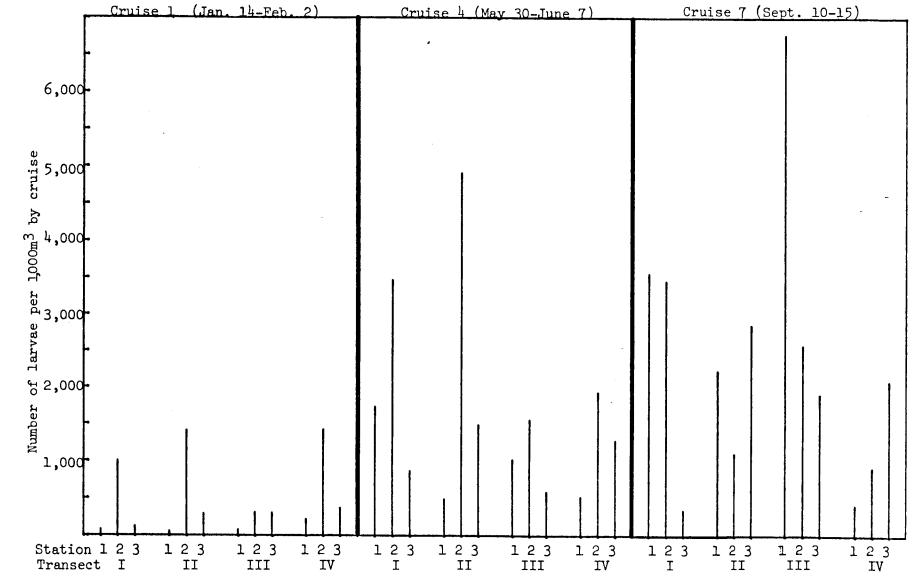


Figure 113. Number of fish larvae per  $1000\text{m}^3$  taken from seasonal 505  $\mu$  plankton samples by cruise, transect and station during 1976.

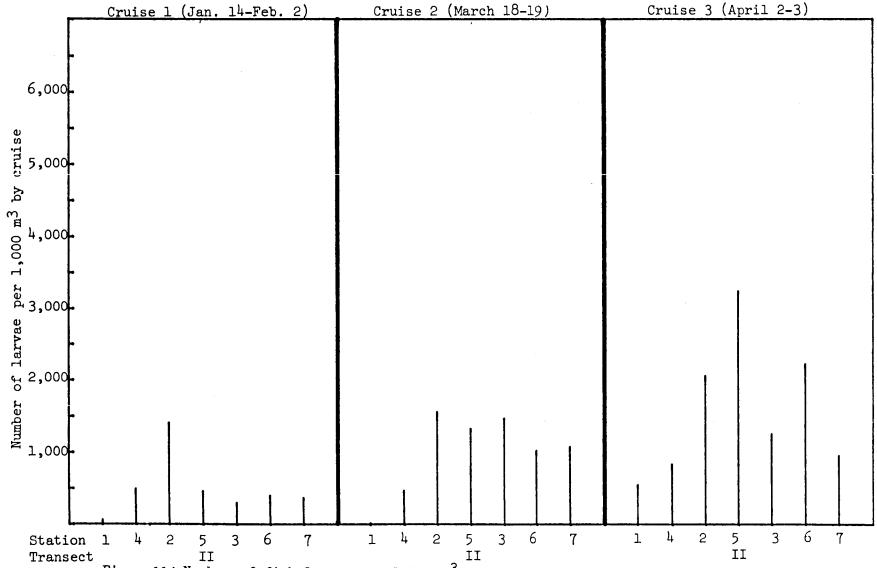
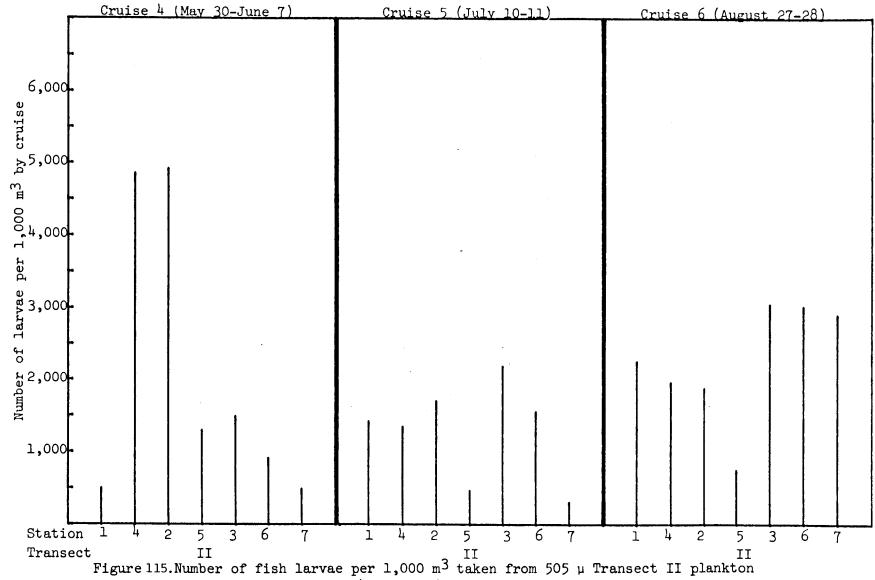


Figure 114 Number of fish larvae per 1,000 m<sup>3</sup> taken from 505 µ Transect II plankton samples during Cruises 1, 2 and 3 by station during 1976.



samples during Cruises 4, 5 and 6 by station during 1976.

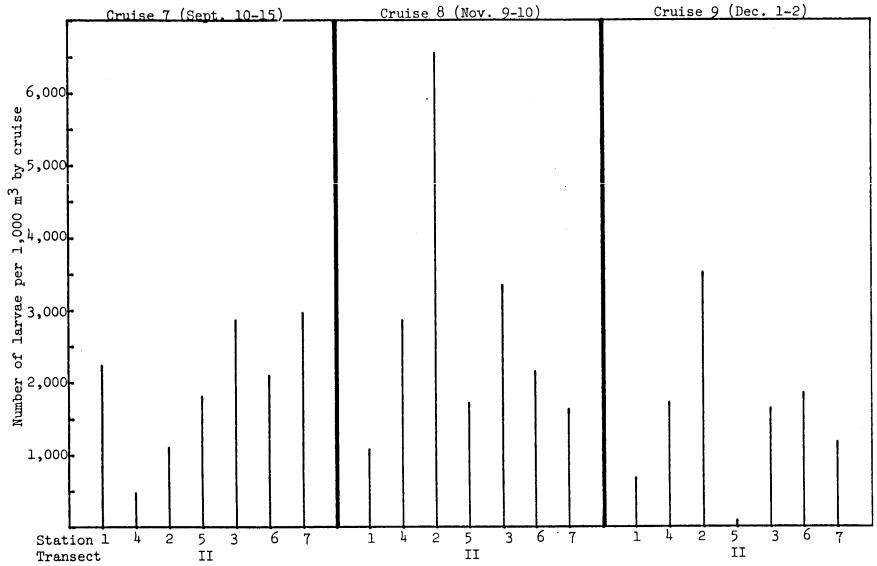


Figure 116. Number of fish larvae per 1,000 m $^3$  taken from 505  $\mu$  Transect II plankton samples during Cruises 7, 8 and 9 by station during 1976.

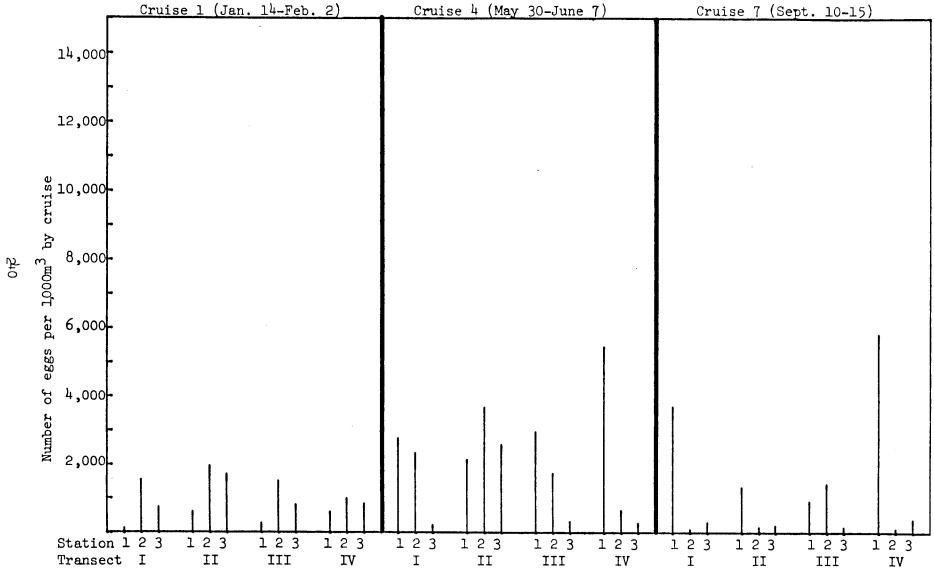
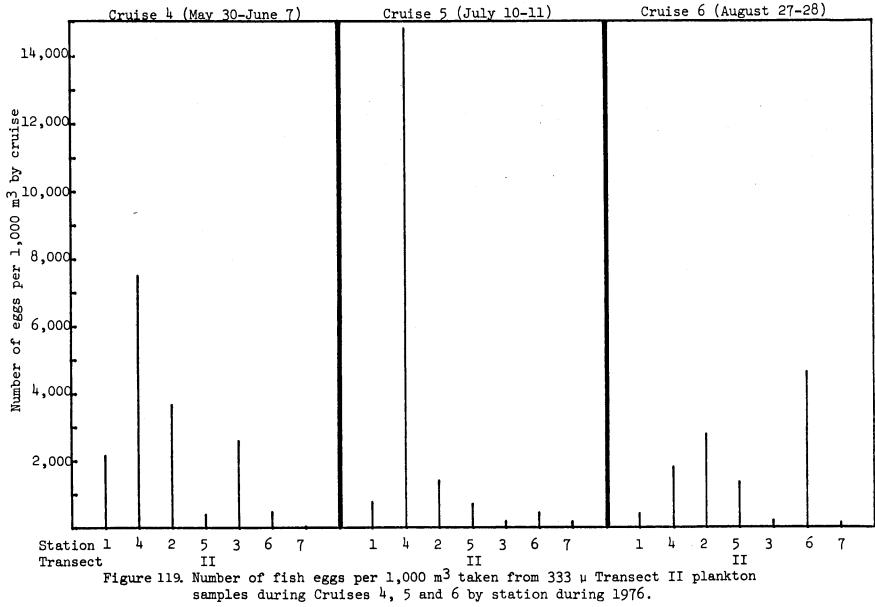
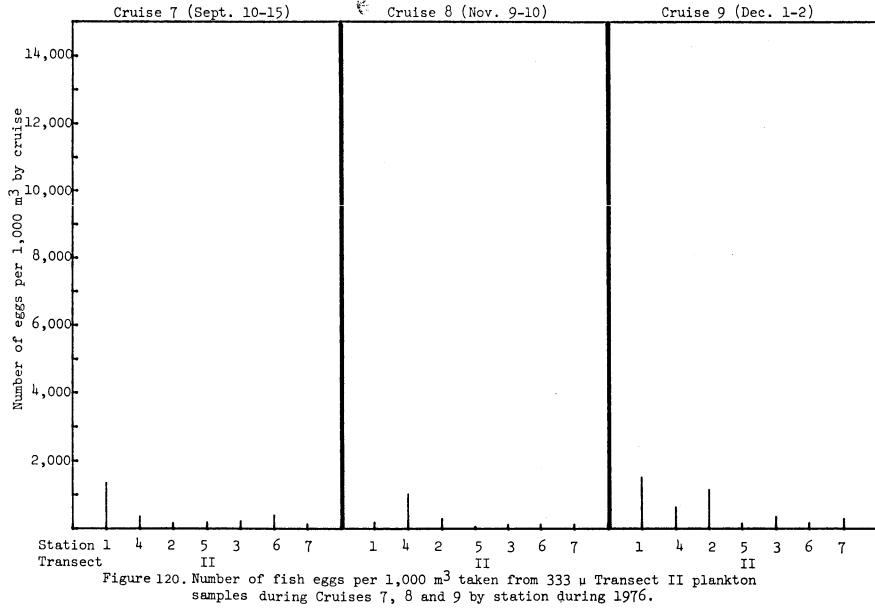


Figure 117. Number of fish eggs per  $1000\text{m}^3$  taken from 333  $\mu$  seasonal plankton samples by cruise, transect and station during 1976.

Figure 118.Number of fish eggs per 1,000 m $^3$  taken from 333  $\mu$  Transect II plankton samples during Cruises 1, 2 and 3 by station during 1976.





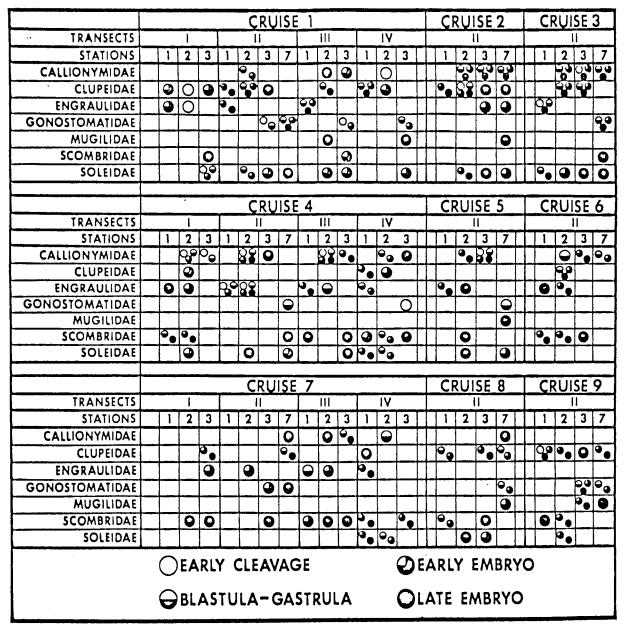
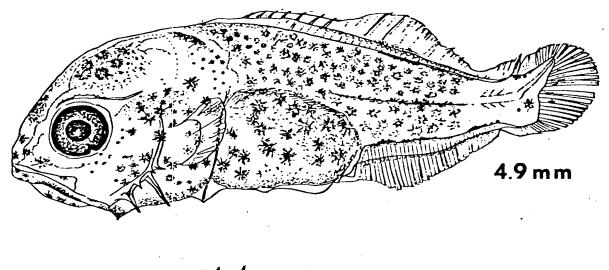
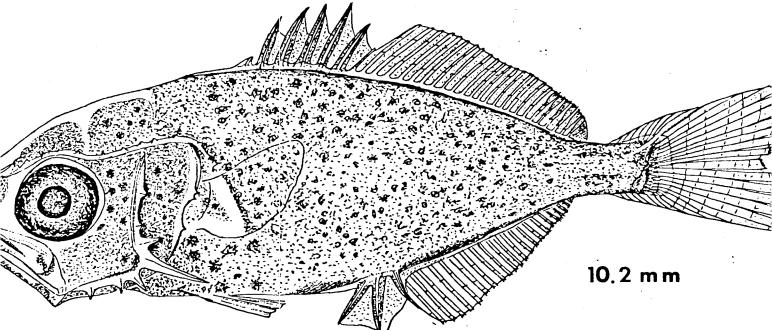


Figure 121. Egg stages of selected fish families by cruise, transect and station during 1976.

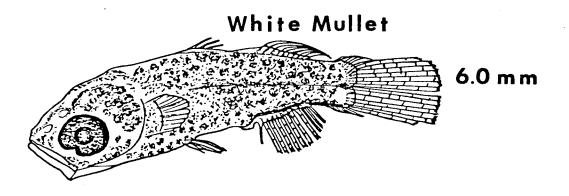
### Florida Pompano





# CARANGIDAE - Trachinotus carolinus

Figure 122. Larval developmental stages of the Florida pompano collected off the Texas OCS during 1976.



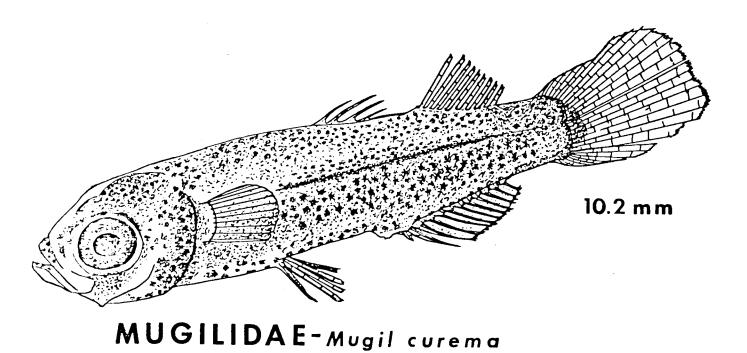
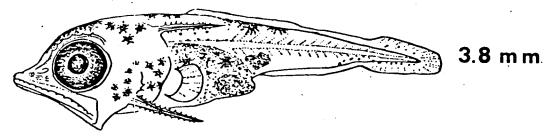
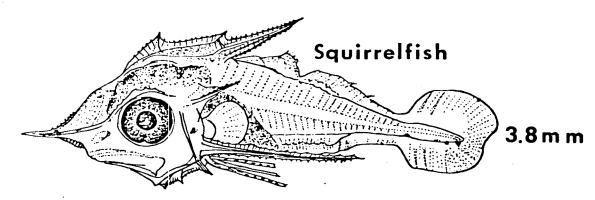


Figure 123. Larval developmental stages of the white mullet collected off the Texas OCS during 1976.

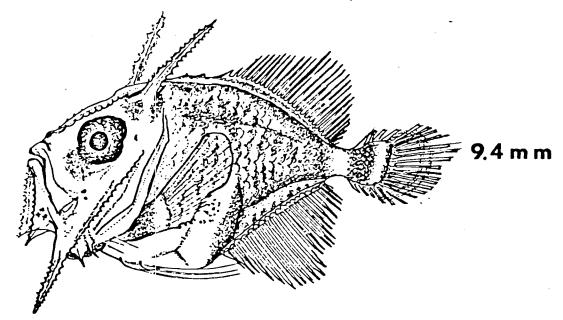
#### Sailfish



# ISTIOPHORIDAE - Istiophorus platypterus

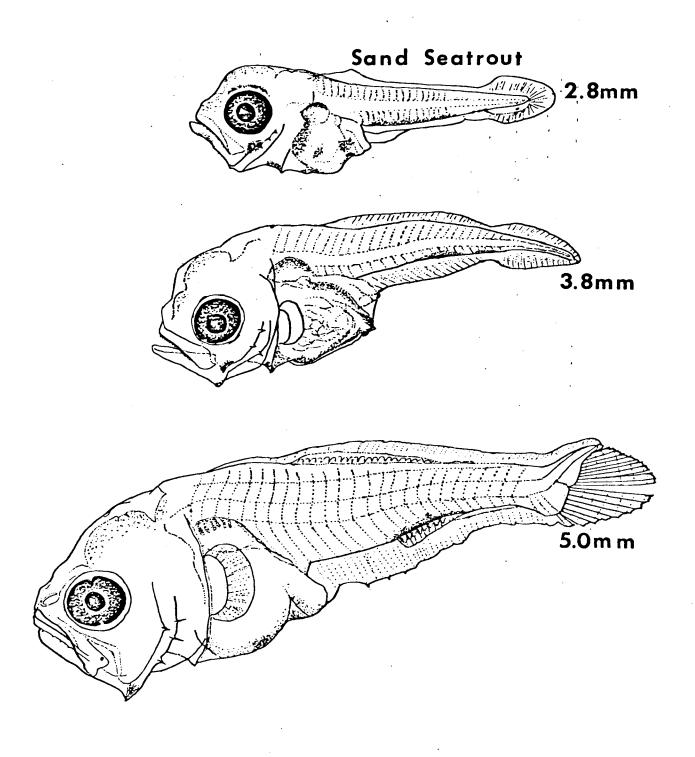


# HOLOCENTRIDAE-Holocentrus sp.



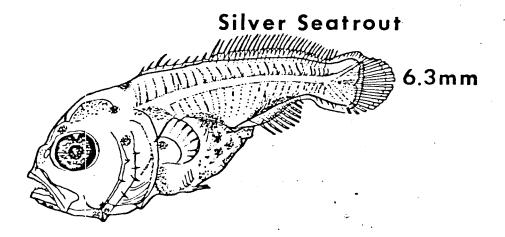
#### DIRETMIDAE-Diretmus sp.

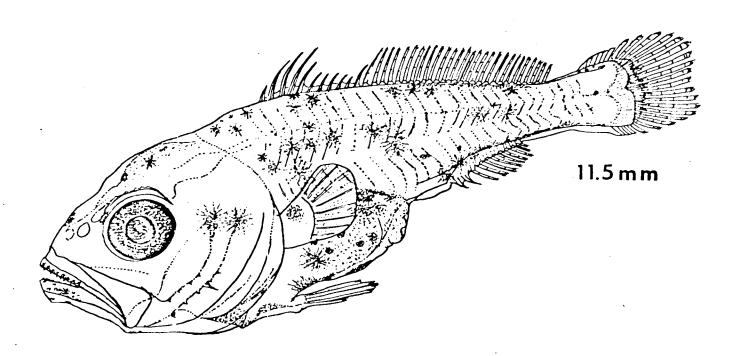
Figure 124. Larval developmental stages of the sailfish, squirrelfish and diretmid collected off the Tayes OCS during 1076



## SCIAENIDAE-Cynoscion arenarius

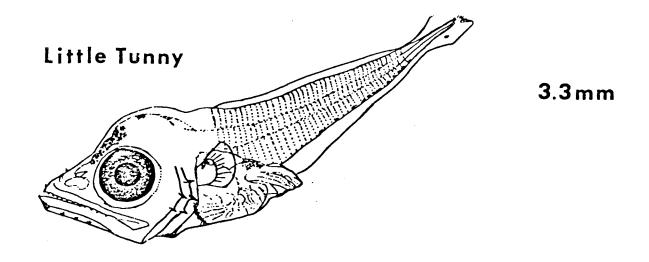
Figure 125. Larval developmental stages of the sand seatrout collected off the Texas OCS during 1976.

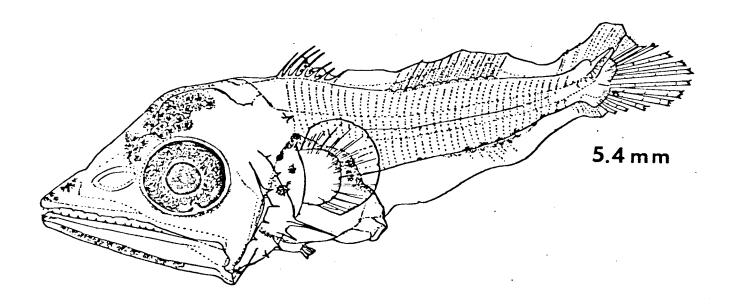


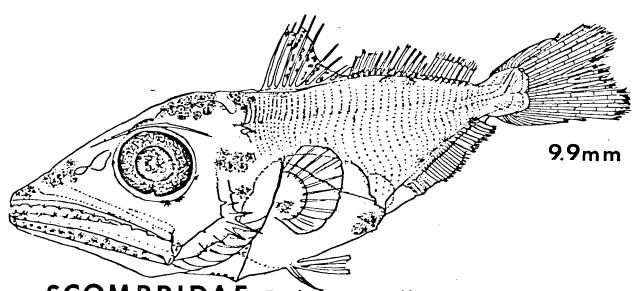


# SCIAENIDA E-Cynoscion nothus

Figure 126. Larval developmental stages of the silver seatrout collected off the Texas OCS during 1976.



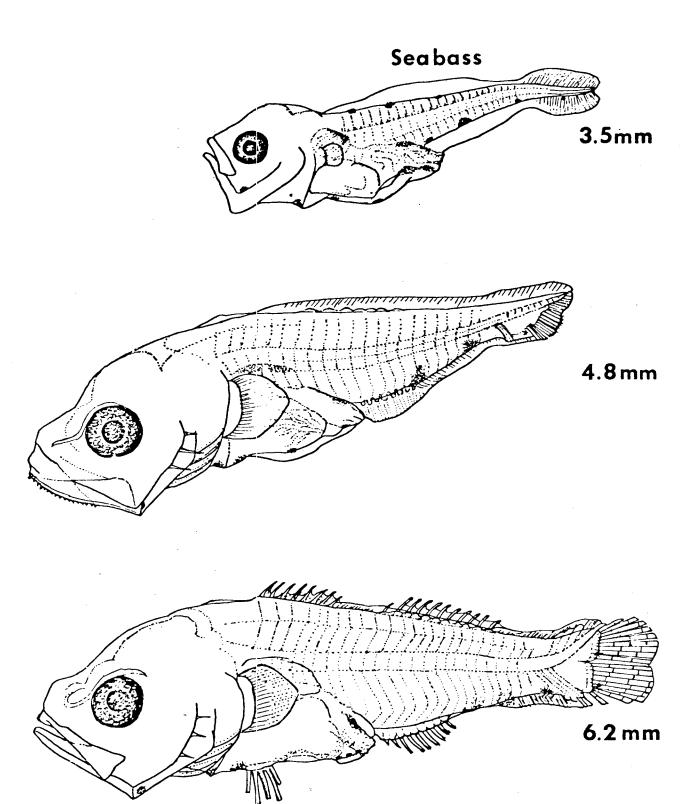




SCOMBRIDAE-Euthynnus alletteratus

Figure 127 | Larval developmental stages of the little two

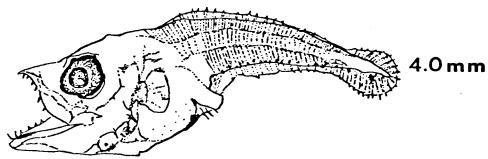
Figure 127. Larval developmental stages of the little tunny

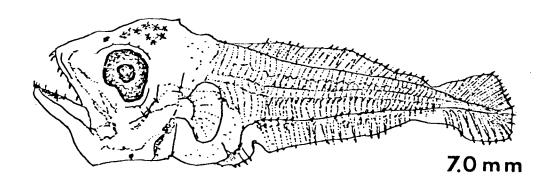


## SERRANIDAE-Centropristis sp.

Figure 128. Larval developmental stages of the seabass collected off the Texas OCS during 1976.

### King Mackerel





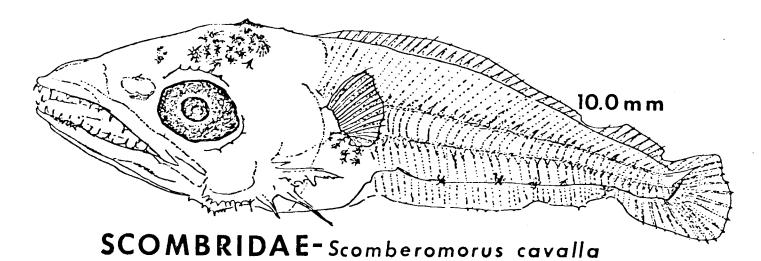


Figure 129. Larval developmental stages of the king mackerel collected off the Texas OCS during 1976.

APPENDIX B

(Mackerel Larvae)

Table 31. Scomberomorus cavalla, number and mean and range of lengths of larvae captured at each station during Cruises IV, V, VI, VII of the 1976 Baseline Survey. Gear types, 333 and 505  $\mu$  mesh nets, were combined because lengths of larvae did not vary significantly between gear types.

Station	No. of Larvae	Size Range mm SL	Mean Length	Date 1976	Depth Range (m)	Temp.	Salinity	Time
CRUISE IV							•	
I 1	3	3.9-4.5	4.2	7 Jun	18	27.4	30.4	2030
I 2	18	2.0-3.6	3.0	7 Jun	42	24.4	32.8	1452
I 3	3	2.4-2.8	2.6	6 Jun	. 134	23.2	35.6	2240
II 1	3	2.4-2.8	2.6	3 Jun	22	26.4	31.3	1211
II 2	13	2.2-7.9	3.2	4 Jun	49	23.9		2342
II 3	8	2.2-4.6	3.5	5 Jun	131	22.4	35.9	2114
II 4	2 .	3.4-4.1	3.7	4 Jun	34	***	<b>==</b> ←	2309
II 5	8	2.7-5.1	3.5	6 Jun	78	24.4	35.4	1334
II 6	1	3.2	3.2	6 Jun	98	23.8	35.6	1232
II 7	1	2.3	2.3	5 Jun	183			2020
III 1	0			3 Jun	25	25.6	32.6	1855
III 2	2	2.5-2.8	2.6	4 · Jun	65	23.3	34.8	0932
III 3	4	2.9-4.7	3.8	5 Jun	106	22.6	35.1	1612
IV 1	0	, 		30 May	27	24.6	33.7	1027
IV 2	1 .	7.2	7.2	30 May	47	24.2	34.7	0020
IV 3	0		***	30 May	91	22.8	35.6	1958
Subtotal	67	2.0-7.9	3.3				••	

Table 31 (cont.).

Station	No. of Larvae	Size Range mm SL	Mean Length	Date 1976	Depth Range (m)	Temp.	Salinity	Time
CRUISE V							· .	••
II 1	0			10 Jul	22 ·	27.8	34.2	1410
II 2	. 47	2.1-5.9	3.7	10 Jul	49	26.0	35.7	1930
II 3	2	4.1-4.2	4.1	11 Jul	131	.23.4	36.0	1430
II 4	3	3.0-6.2	5.1	10 Jul	34	27.2	34.4	1645
II 5	1	2.1	2.1	10 Jul	78	25.1	35.9	2310
II 6	1	2.9	2.9	11. Jul	98	24.4	35.9	1115
II 7	0			ll Jul	183		age ste	1330
Subtotal	53	2.1-6.2	3.3		,			
CRUISE VI				•		•		
II 1	0			28 Aug	22	25.6	37.4	1725
II 2	4	5.2-6.6	5.8	28 Aug	49	27.4	36.2	1400
II 3	18	2.1-6.3	2.9	27, Aug	131	26.7	36.3	2015
II 4	2	4.5-5.0	4.8	28 Aug	34	28.1	36.6·	1614
II 5	2	2.6-5.5	4.6	28 Aug	78	28.0	35.5	1255
II 6	8 .	2.6-5.6	3.6	28 Aug	98	26.9	35.9	1050
II 7	6	2.0-4.6	4.2	27 Aug	183	***	,	2243
Subtotal	40	2.0-6.6	3.7				**	

Table 31(cont.).

Station	No. of Larvae	Size Range mm SL	Mean Length	Date 1976	Depth Range (m)	Temp.	Salinity .	Time
CRUISE VII		•						
I 1	0			15 Sept	18	28.5	33.5	2225
I 2	. 7	1.9-3.0	2.6	15 Sept	42	28.0	35.5	1852
1 3	1	2.6	2.6	15 Sept	134	25.3	36.4	1125
II 1	0			10 Sept	22	29.1	35.3	1800
II 2	9	2.2-7.2	5.0	14 Sept	49	27.4	36.2	1843
II 3	7	4.1-9.7	5.3	13 Sept	131	23.2	36.6	2312
II 4	11	1.9-3.3	2.7	10 Sept	34	28.7	35.8	2120
II 5	27	2.3-6.8	3.6	14 Sept	78	24.4	36.3	1500
II 6	· 25	2.2-5.6	3.0	14 Şept	98	23.5	36.6	1143
II 7	34	2.1-8.3	3.8	13 Sept	183			2135
III 1	1	1.8	1.8	12 Sept	25	29.2	36.2	1927
III 2	42	2.2-6.4	4.0	13 Sept	65 ·	25.2	36.3	1119
III 3	· 16	2.6-4.5	3.4	13 Sept	106	23.3	36.5	1650
IV 1	7	2.1-3.5	3.1	12 Sept	27	28.6	36.3	1018
IV 2	1 '	2.9	2.9	11 Sept	47	25.8	36.7	1815
IV 3	10 •	2.3-4.5	3.1	11 Sept	91	25.4	36.5	1210
Subtotal	198	1.8-9.7	3.3					
TOTAL	358						::	

) ! (

Table 32. Scomberomorus cavalla, number of larvae under 10 m<sup>2</sup> of sea surface at each station during the 1976 Baseline Survey.

	No. of	Larvae	•
Station:	333 μ	505 μ	Station Depth
CRUISE IV			
I 1	3.2	1.7	18
I 2	19.5	37.7	42
I 3	5.5	10.7	134
II 1	2.1	4.2	22
II 2	19.9	16.6	49
II 3	33.9	0	131
II 4	6.9	. 0	34
II 5	20.1	7.3	78
II 6	. 4.1	0	98
II 7	2.1	0	183
III 1	0	0	25
III 2	0	6.9	65
III 3	3.3	9.5	106
IV 1	0	0	27
IV 2	2.2	0	47
IV 3	0	0	91
CRUISE V			
II 1	0	0	22
II 2	39.3	35.7	49
II 3	3.2	3.0	131
II 4	7.3	3.4	34
II 5	2.9	0	78
II 6	0	3.5 ·	. 98
II 7	0	0	. 183

Table 32.(cont.).

	No. o	f Larvae	•	
Station	333 µ	505 μ	Station Depth	
CRUISE VI		. •		
II 1	0	0	22	
II 2	5.6	5.1	49	
II 3	30.4	33.5	131	
II 4	5.6	0	34	
II 5	6.9	О ,	78	
II 6.	27.3	6.1	98	
II 7	16.9	5.5	183	
CRUISE VII				
I 1	0	0	18	
I 2	` 14.1	8.2	42	
I 3	2.8	. 0	134	
II 1	0	0	22	
II 2 .	13.2	24.6	49	
II 3	30.4	0	131	
II 4	15.8	1.5	34	
II 5	26.3	44.0	78	
II 6	47.6	35.6	98	
II 7	72.4	56.7	183	
III 1	1.5	0 .	25	
III 2	106.7	43.7	65	
III 3	35.1	31.6	106	
IV 1	9.0	6.4	27	
IV 2	3.2	0	47	
IV 3	16.8	10.6	91	

Table 33. Scomberomorus cavalla, number of larvae under 10 m<sup>2</sup> of sea surface at each station during the 1975 Baseline Survey.

	No. o	of Larvae	
Station	Day	Night	Station Depth
CRUISE II		-	
I 1	0	0	18
I 2	. 0	0.7	42
I 3	0	0	134
II 1	0	0	22
II 2	. 0	0	49
II 3	0	1.4	131
III 1	0	, О	25
III 2	0	1.5	65
III 3	0	0	106
IV 1	0	0	27
IV 2	· 0	0	47
IV 3	0	0	91
CRUISE III			
I i	0.8	0.8	18
I 2	11.5	2.8	42
I 3	5.9	9.4	134
II 1	0	0	22
II 2	13.3	10.8	49
II 3	0	2.9	131
III 1	0	0.6	25
III 2	11.2	11.4	65
III 3	0	24.8	106
IV 1	1.5	0	27
IV 2	11.9	15.6	47
IV 3	54.5	23.4	91

Table 34. Scomberomorus cavalla, number of larvae under 10 m<sup>2</sup> of sea surface at each station during the 1975 Special Mackerel Larvae Survey.

Station	No. of Larvae	Depth of Tow	Station	No. of Larvae	Depth of Tov
CRUISE I			·	~	
1	0	. 7	9	0	9
2	0.9	28	10	1.5	27
3	. 0	60	11.	3.9	60
. 4	0	134	12	0	130
5	0 -	128	13	3.2	104
6	0	60	. 14	<b>0</b>	59
7	0.5	29	15	0	27
8	0	9	16	0	7
CRUISE II					
1	0 '.	7	. 9	0	9
2	Q	28	. 10	0	27
3	C	60	11	4.1	60
4	G	134	12	1.7	130
5	1.7	128	13	3.1	104
6	1.3	60	14	1.4	59
7 .	0	29	15	0	27
8	0	9	16	0	7
CRUISE III					
1	0	7	9	0	9
2	4.7	28	10	2.5	27
3	5.2	60	11	2.2	60
4	0	134	12	0	130
5	0	128	13	0	104
. 6	1.6	60	14	Ó.	59
7	5.6	29	15	9.5	27
8	0	9	16	0	7

Table 34 (cont.).

Station	No. of Larvae	Depth of Tow	Station	No. of Larvae	Depth of Tow
CRUISE IV					: :
1	. 0	7	9	0	9
2	`0	28	10	7.6	27
3	4.0	60	-11	1.3	60
4	4.9	134	12	14.2	130
5	1.6	128	13	11.2	104
6	7.0	60	14	13.3	59
7	11.5	29	۱ 15	0	27
8	o o	9	16	0.5	7
CRUISE V			·		
1	0	7	9	0	9
2	3.9	28	- 10	11.5	27
3	20.9	60	· 11	1.0	60
4	1.7	134	12	3.5	130
5	. <b>0.8</b>	128	13.	2.4	104
6	9.6	60	14	6.5	59
7	2.9	29	15	3.3	27
8	0	9	16	0	7

Table 35. Scomberomorus maculatus, number and mean and range of lengths of larvae captured at each station during Cruises IV, V, VI, VII of the 1976 Baseline Survey. Larvae captured with 333 μ and 505 μ were combined (see Table 1).

-Station	No. of Larvae	Size Range (mm SL)	Mean Length	Date 1976	Depth Range (m)	Temp. C	Salinity	Time
CRUISE IV	•		•			•		
I 1	1	2.9	2.9	7 Jun	18	27.4	30.4	2030
I 2	0			7 Jun	42	24.4	32.8	1452
I 3	0	<u></u>		6 Jun	134	23.2	35.6	2240
II 1	4	2.7-3.2	3.0	3 Jun	22	26.4	31.3	121
II 2	0		<del></del>	4 Jun	49	23.9	<b></b>	2342
II 3	0 .			5 Jun	131	22.4	35.9	2114
II 4	1	3.8	3.8	4 Jun	34			2309
II 5	0			6' Jun	78	24.4	35.4	1334
II 6	1	2.1	2.1	6 Jun	98	23.8	35.6	1232
II 7	1	2.1	2.1	5 Jun	183			2020
III 1	0			3 Jun	25	25.6	32.6	185
III 2	0		<del>**</del>	'/4 Jun	65 <sup>.</sup>	23.3	34.8	0932
III 3	0 ,			5 Jun	106	22.6	35.1	1613
IV 1	0			30 May	27	24.6	33.7	1027
IV 2	0			30 May	47	24.2	34.7	0020
IV 3	0		· <del></del> -	30 May	91	22.8	35.6	1958
Subtotal	8	2.1-3.8	2.9		** <del>***********************************</del>		<u> </u>	

Table 35 (cont.).

Station	No. of Larvae	Size Range (mm SL)	Mean Length	Date . 1976	Depth Range (m)	Temp. C	Salinity	Time
CRUISE V							· ;	
II 1	5	2.0-3.8	3.0	10 Jul	22	27.8	34.2	1410
II 2	2	2.5-2.7	2.6	10 Ju1	49	26.0	35.7	1930
II 3	0	<del></del>		11 Jul	131	23.4	36.0	1430
II 4	1	2.3	2.3	10 Jul	34	27.2	34.4	1645
II 5	0			10 Jul	78	25.1	35.9	2310
II 6	0			11 Jul	98	24.4	35.9	1115
II 7	0		. ·· ·	11 Jul	183			1330
Subtotal	8	2.0-3.8	2.8	,		·	•	· · · · · · · · · · · · · · · · · · ·
CRUISE VI				•				
II 1	4	2.1-4.2	3.3	28 Aug	22 .	25.6	37.4	1725
II 2	1	2.3	2.3	28 Aug	49	27.4	36.2	1400
II 3	0	,		'/27 Aug	131	26.7	36.3	2015
II 4	3 ,	3.5-6.6	5.0	28 Aug	34	28.1	36.6	1614
II 5	0			28 Aug	78	28.0	35.5	1255
II 6	2 .	2.5-3.4	3.0	28 Aug	98	26.9	35.9	1050
II 7	0		toto com	27 Aug	183			2243
Subtotal	10	2.1-6.6	3.6					<del></del>

7

Table 35 (cont.).

Station	No. of Larvae	Size Range (mm SL)	Mean Length	Date 	Depth Range (m)	Temp. C	Salinity	Time
CRUISE VII							;	
I 1	4	1.9-2.5	2.09	15 Sept	18	28.5	33.5	222
I 2	. 1	11.5	11.5	15 Sept	42	28.0	35.5	1852
I 3	0			15 Sept	134	25.3	36.4	1125
II 1	0	<del></del>		10 Sept	22	29.1	35.3	1800
II 2	0			14 Sept	49	27.4	36.2	1843
II 3	0		<del></del>	13 Sept	131	23.2	36.6	2312
II 4	0			10 Sept	34	28.7	35.8	212
II 5	1	2.2	2.2	14 Sept	78	24.4	36.3	1500
II 6	0			14 Sept	98	23.5	36.6	114
II 7	0			13 Sept	183			213
III 1	12	1.7-5.5	3.97	12 Sept	25	29.2	36.2	192
III 2	0			13 Sept	65	25.2	36.3	111
III 3	0			· 13 Sept	106	23.3	36.5	165
IV 1	1	3.2	3.2	12 Sept	27	28.6	36.3	101
IV 2	0			11 Sept	47	25.8	36.7	181
IV 3	0 •			11 Sept	91	25.4	36.5	121
Subtotal	19	1.7-11.5	3.8				.:	
TOTAL	45						••	

Table 36 Scomberomorus maculatus, number of larvae under 10  $\rm m^2$  sea surface at each station during the 1976 Baseline Survey.

	No. of	Larvae	
Station	333 μ	505 µ	Station : Depth (m)
CRUISE IV .			
I 1	1.6	0	18
I 2 -	0	<b>0</b> .	42
I 3	0	0 .	134
II 1	6.2	2.1 ;	22
II 2	0	O	49
II 3	0	. 0	131
II 4	0 .	3.7	34
II 5	0	. 0	78
II 6	4.1	0	98
II 7	. 2.1	0	183
III 1	0 -	. 0	25
III 2	0	0	65
III 3	0	0	106
IV 1	0	0	27
IV 2	0	0	47
IV 3	0	0	91
CRUISE V			
II 1	6.4	4.2	22
II 2	1.7	1.6	49
II 3	0 .	0	131
II 4	3.6	0	34
II 5	0	0	78
II 6	0	. 0	98
II 7	0	0	183

Table 36 (cont.).

	No. of		
Station	333 μ	505 μ	Station Depth (m)
CRUISE VI			
11 1	5.5	5.1	22
II 2	0	2.5	49
II 3	0	0	131
II 4	8.5	0	34
II 5	0	0	78
II 6	6.8	. 0	98
II <b>7</b>	0	0	183
CRUISE VII		•	
I 1	6.6	0	18
I 2	· 4.7	0	42
I 3	0	0	134
II 1	0	0	22
II 2	0	0	49
II 3	0	0	131
II 4	0	0	34
II 5	2.9	0	78
II 6	0	0	98
II 7	0	0	183
III 1	12.0	5.8	25
III 2	0		
III 3	0		
IV 1	2.2	0	27
IV 2	0	0	47
IV 3	0	0	91

. . .

Table 37. Scomberomorus maculatus, number of larvae under 10  $m^2$  of sea surface at each station during the 1975 Baseline Survey.

	No. of	•	
Station.	Day	Night	Station Depth (m)
CRUISE II	•		
I 1	0	0	18
I 2	0	0	42
I 3	0	0	134
II 1	0	0	22
II 2	0	0	49
11 3	0	0	131
III 1	0	. 0.7	25
III 2	0	0	65
III 3	. 0	0	106
IV 1	` 0 -	0	27
IV 2	0	0	47
IV 3	0	0	91
CRUISE III		•	
I 1	16.9	10.3	18
I 2	0	0	42
I 3 .	0	0	134
II 1	5.1	1.9	22
II 2	0	0	49
II 3	0	0	131
III 1	5.6	3.1	25
III 2	0	0	65
III 3	0	0	106
IV 1	4.5	1.5	27
IV 2	0	2.2	47
IV 3	0	0	91

Table 38. Scomberomorus maculatus, number of larvae under 10 m<sup>2</sup> of sea surface at each station during the 1975 Special Mackerel Larvae Survey.

Station	No. of Larvae	Depth of Tow	Station	No. of Larvae	Depth of Tow
CRUISE II					
1	0.5	, 7	9	1.1	9
2	. 0	28	10	1.2	27
3	<b>O</b> .	60	11	Ö	60
4	0	134	12	0	130
5	ວ	128	13	1.5	104
6	o	60	14	1.4	59
7	0	29	15	1.2	27
8	0.7	9	16	0.6	7
CRUISE III					
1	0	7 _	9	0.4	9
2	0.9	28	10	0.8	27
3	0	60	11	0	60
4	0	134	12 .	0	130
5	0	128	13	0	104
6	0	60 .	14	0	59
7	0	29	15	3.8	27
8	1.1	9	16	0.4	7
CRUISE IV					
1	0	7	9	0.7	9
2	0	28	10	1.3	27
3	0	60	11	0	60
4	. 0	134	12	0	130
5	0 ,	128	13	0	104
6	1.2	60	14	<b>o</b> .	59
7	1.0	29	15	0	27
8	0	9	16	1.6	7

Table 38 (cont.).

Station	No. of Larvae	Depth of Tow	Station	No. of · Larvae	Depth of Tow
CRUISE V				.,	
1	0	7	9	0	9
2	0.8	28	10	1.8	27
3	. 0	60	11	0	60
4	0.	134	12	0	130
5	0	128	13	0	104
6	0	60	14	0	59
7	0.7	29	15	0.8	27
8	1.1	9	16	0.7	7

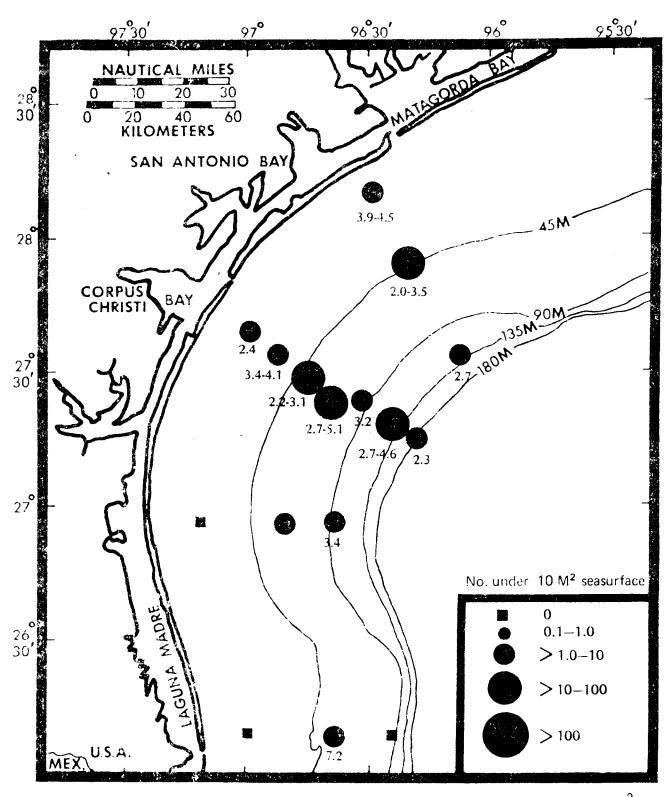


Fig. 130. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise IV.

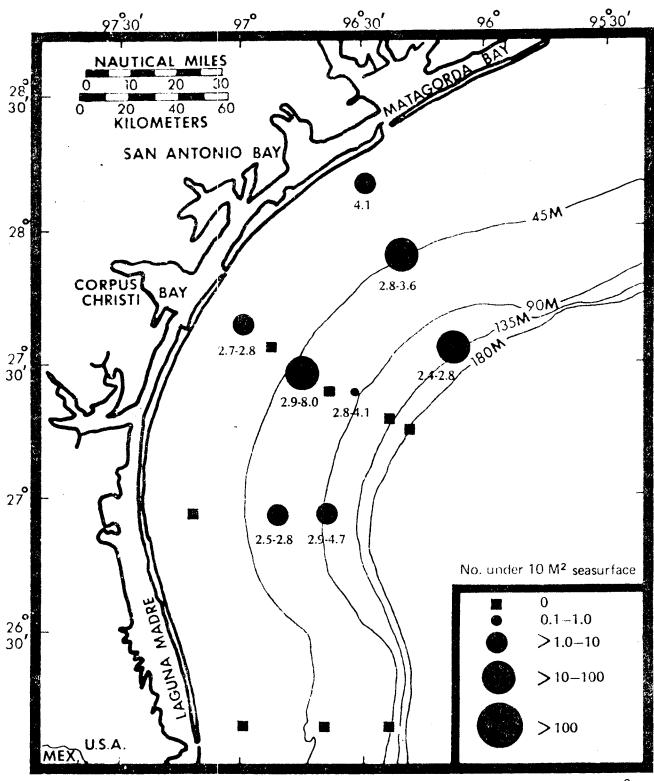


Fig. 131. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise IV.

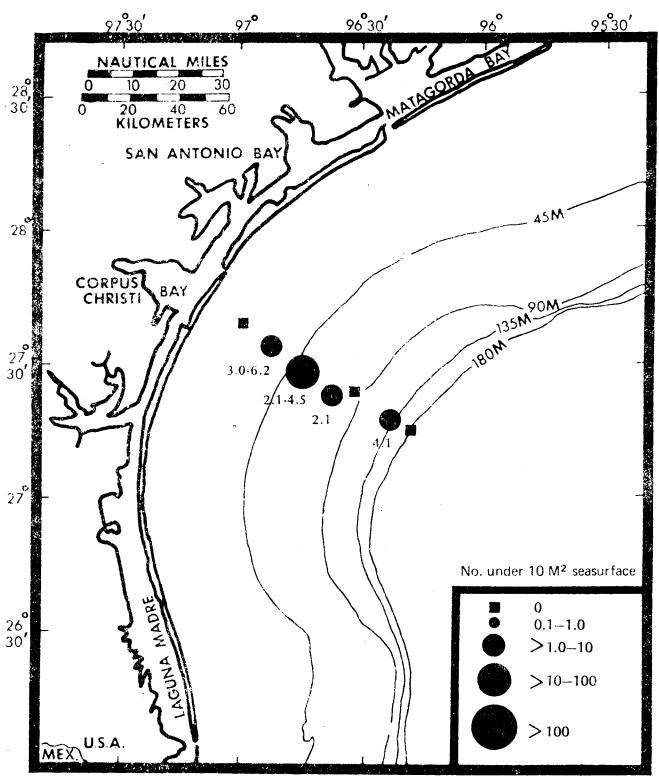


Fig. 132. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise V.

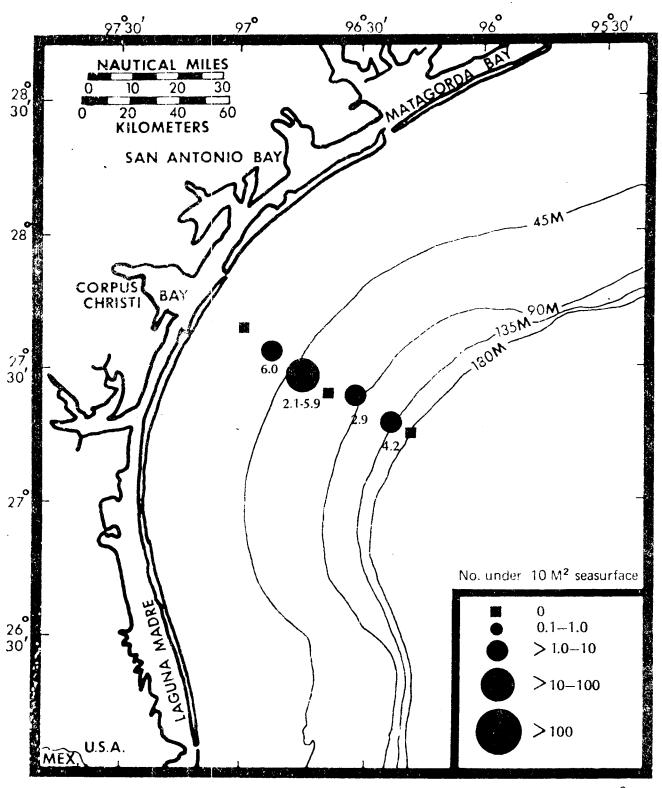


Fig. 133. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise V.

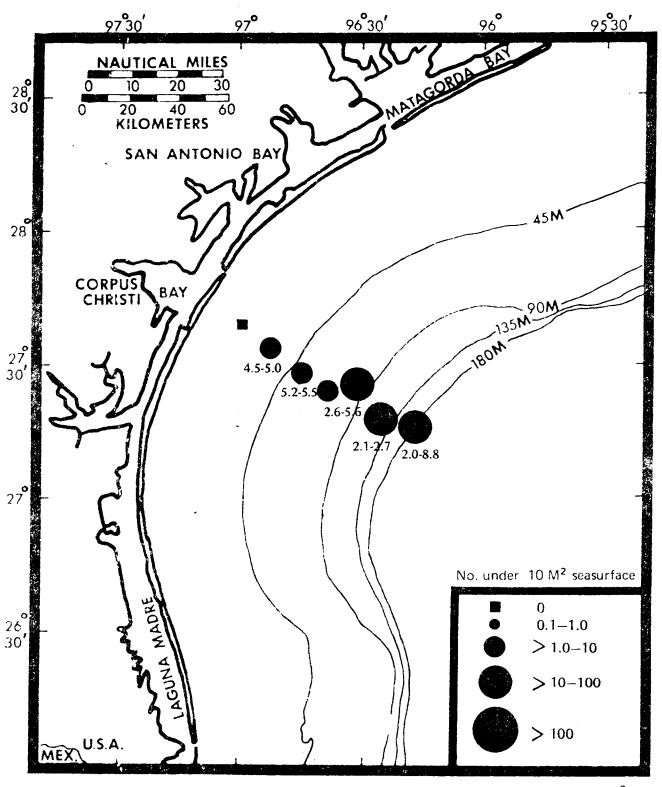


Fig. 134. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise VI.

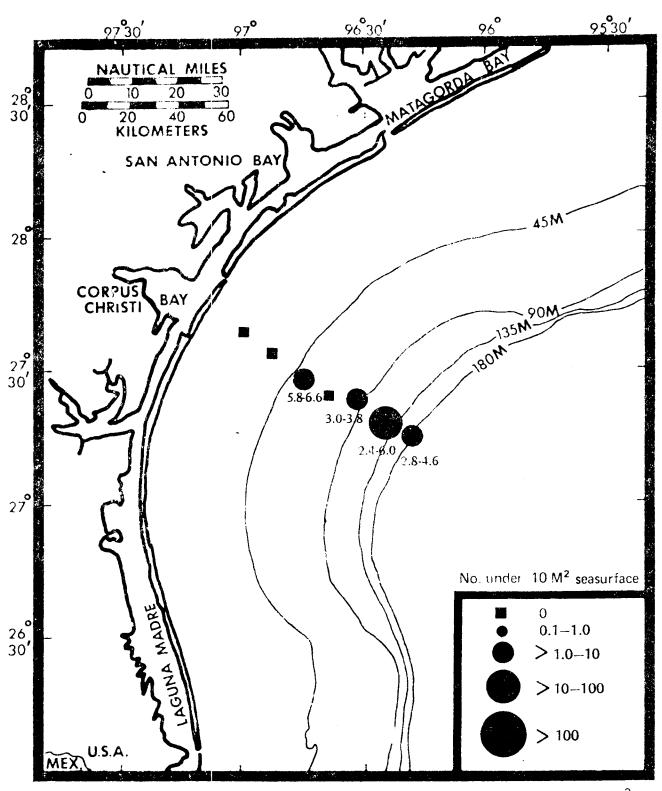


Fig. 135. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise VI.

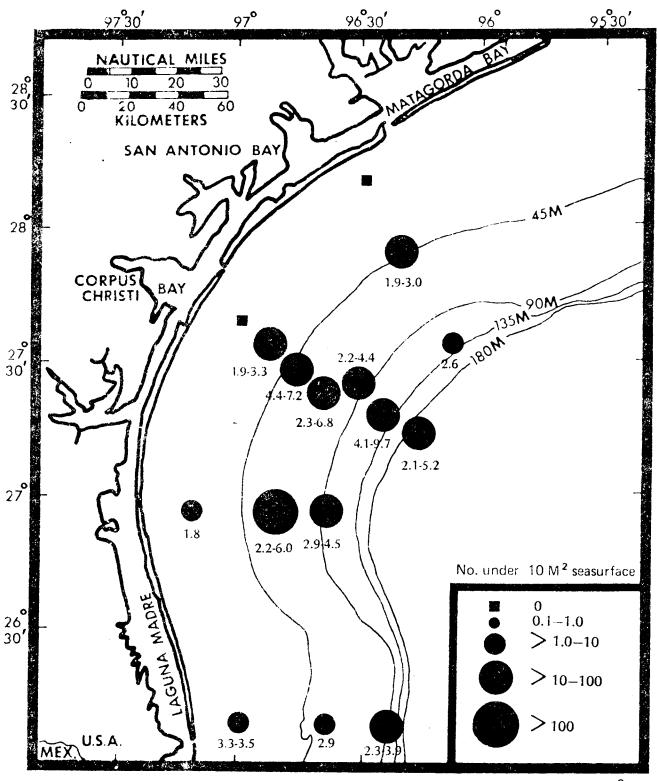


Fig. 136. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise VII.

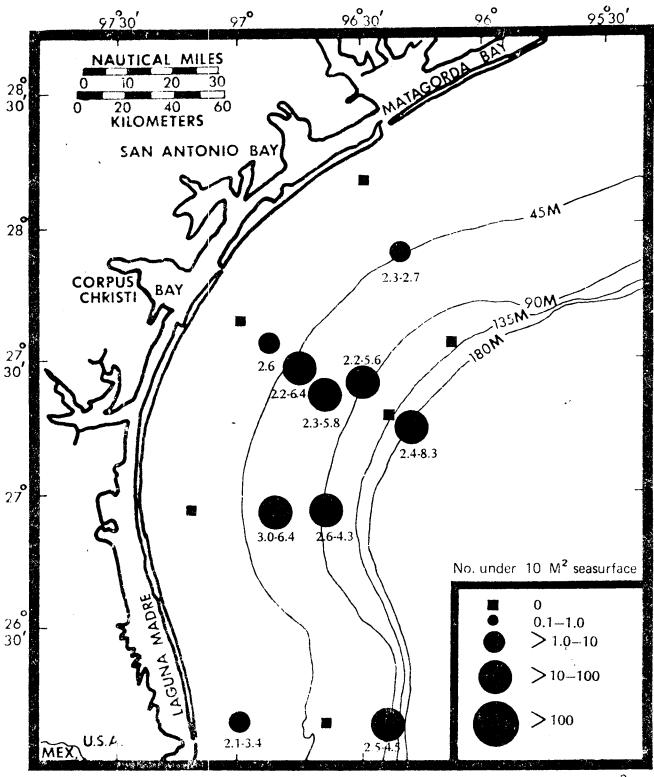


Fig. 137. Scomberomorus cavalla, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise VII.

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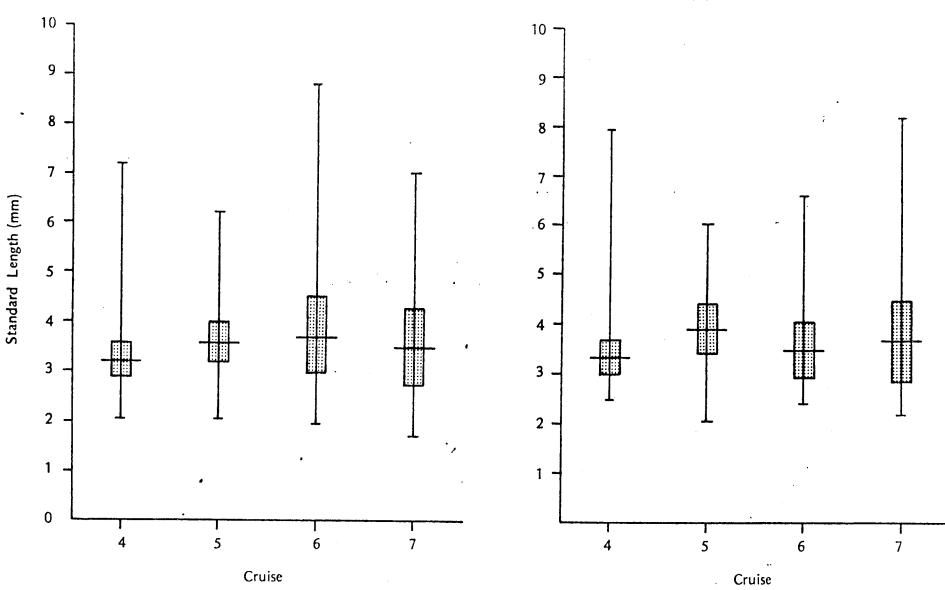


Fig. 138. Scomberomorus cavalla, length frequencies of larvae captured by the 333  $\mu$  and 505  $\mu$  mesh net net on each of the cruises during the 1976 Baseline Survey. Horizontal line = mean, vertical line = range, stippled bar = 95% confidence interval.

## S. cavalla

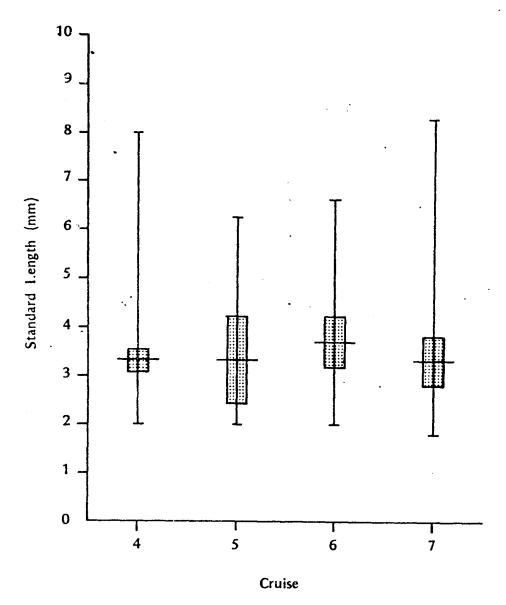


Fig. 139. Scomberomorus cavalla, length frequencies of larvae captured on each of the cruises during the 1976 Baseline Survey, mesh sizes combined. Horizontal line = mean, vertical line = range, stippled bar = 95% confidence interval.

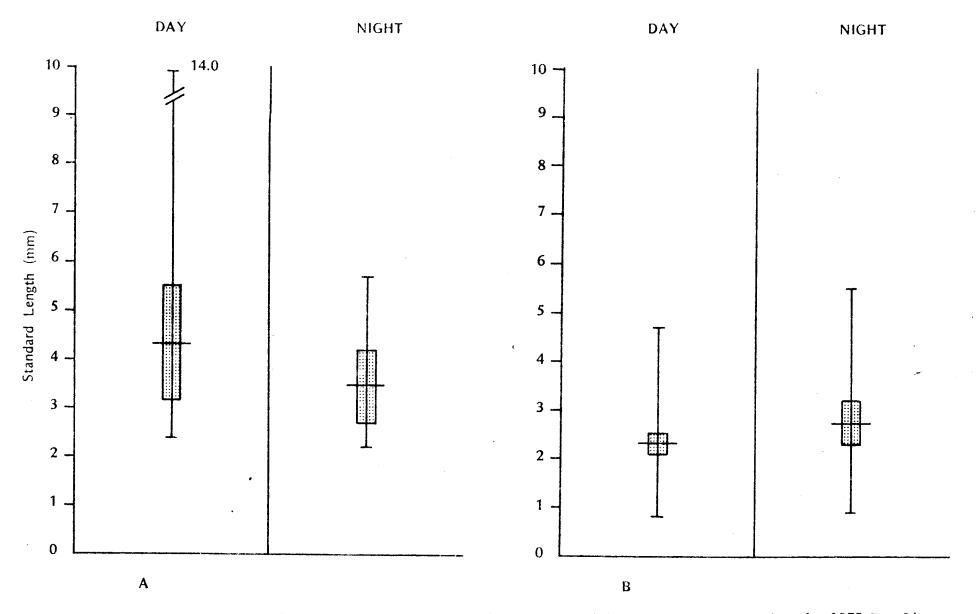


Fig. 140. Length frequencies of larvae captured during day and night along Transect I for the 1975 Baseline Survey. A. Scomberomorus cavalla, B. S. maculatus.

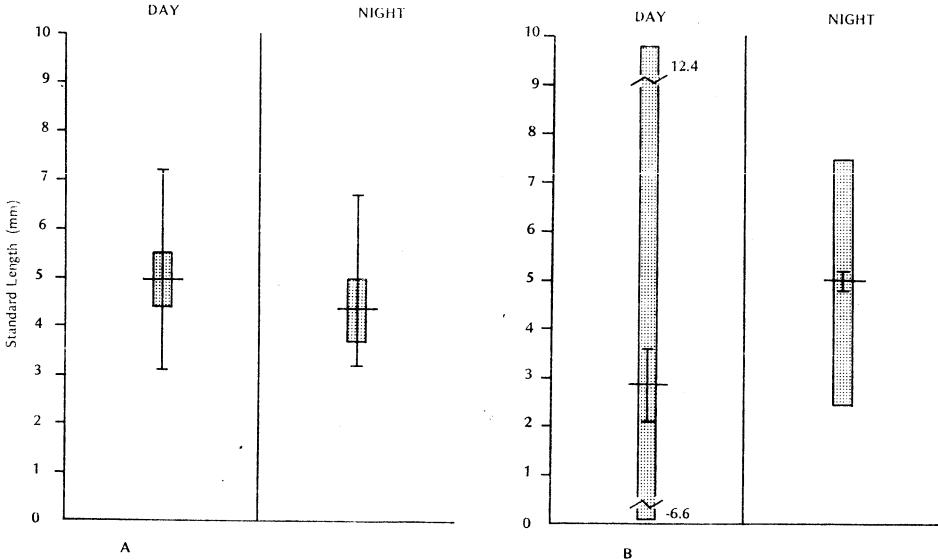


Fig. 141. Length frequencies of larvae captured during day and night along Transect II for the 1975 Baseline Survey. A. Scomberomorus cavalla, B. S. maculatus.

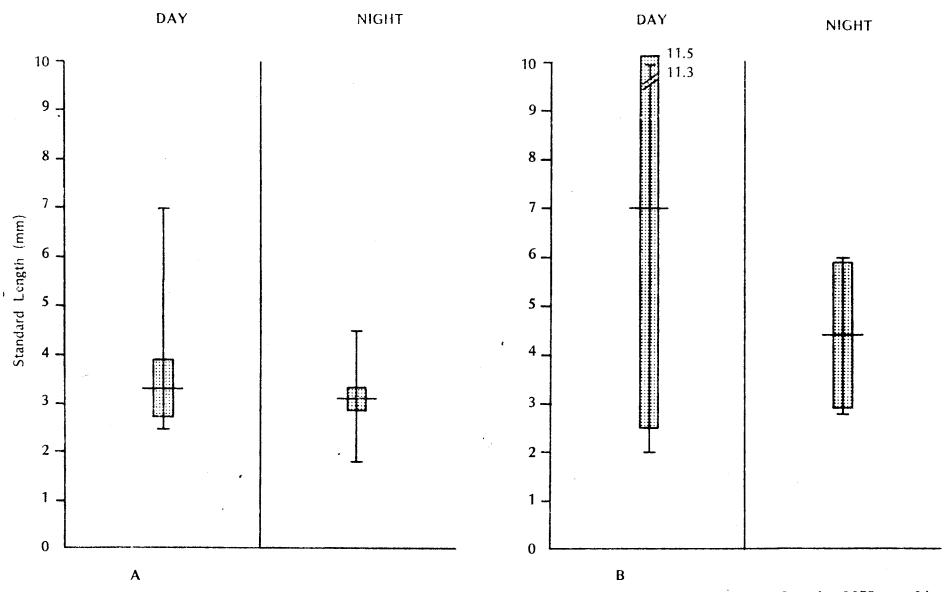


Fig. 142. Length frequencies of larvae captured during day and night along Transect III for the 1975 Baseline Survey. A. Scomberomorus cavalla, B. S. maculatus.

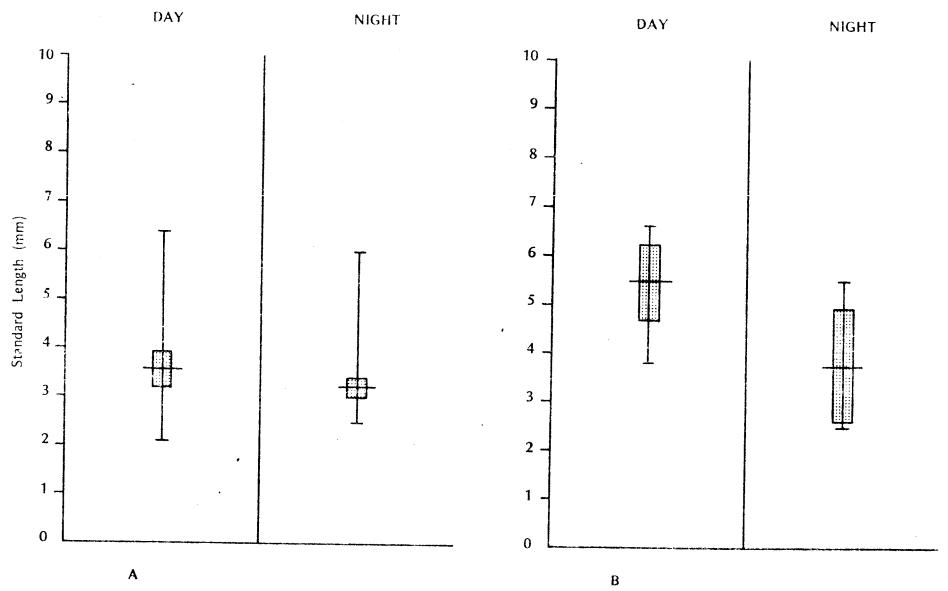


Fig. 143. Length frequencies of larvae captured during day and night along Transect IV for 1975 Baseline Survey. A. Scomberomorus cavalla, B. S. maculatus.

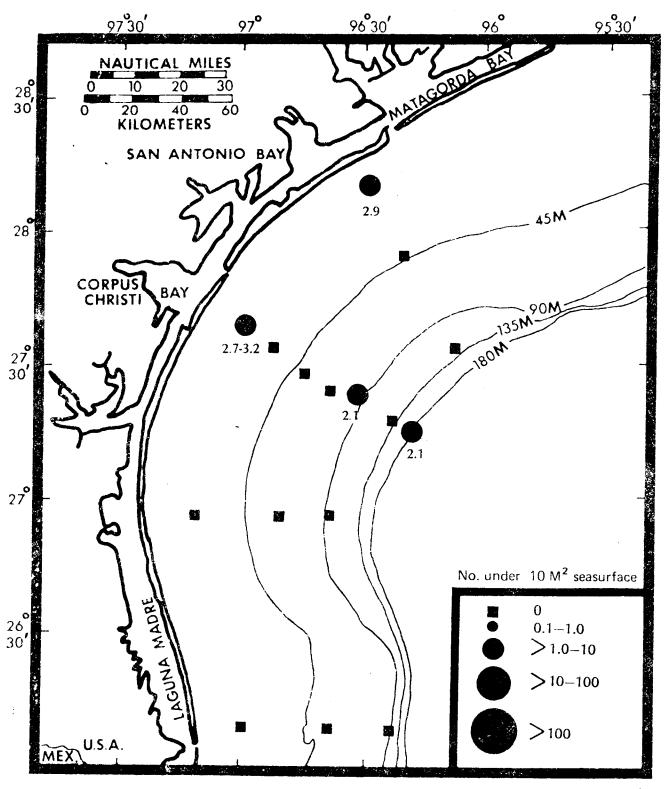


Fig. 144. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise IV.

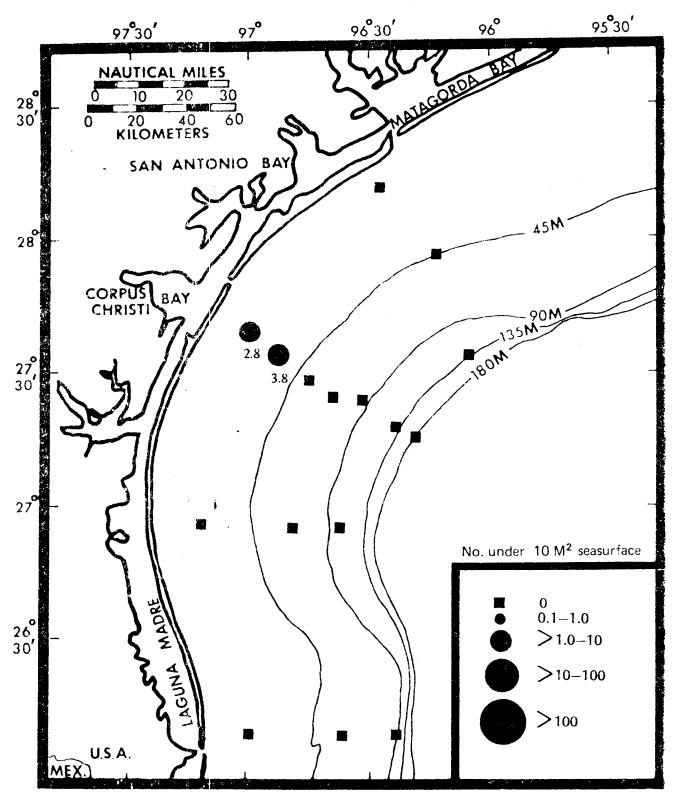


Fig. 145. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise IV.

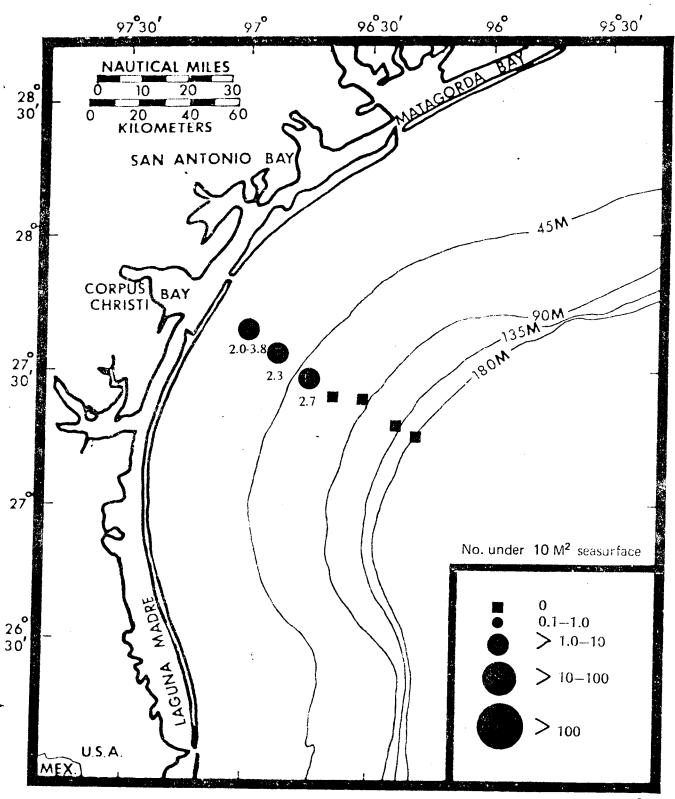


Fig. 146. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise V.

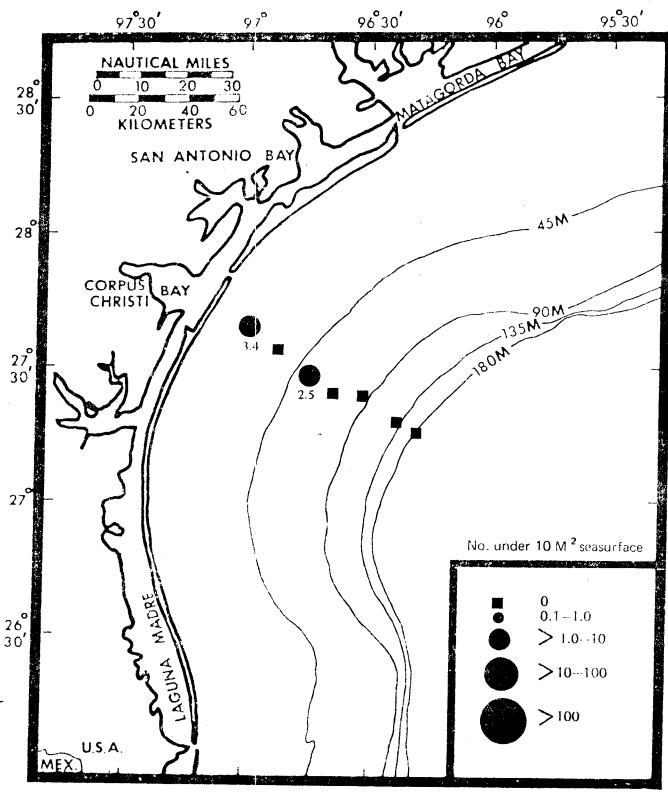


Fig. 147. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise V.

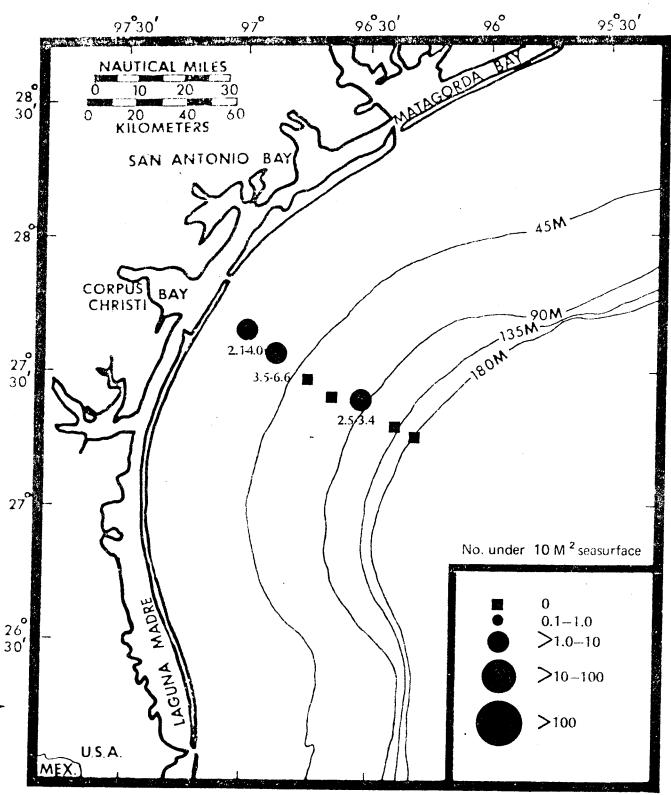


Fig. 148. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise VI.

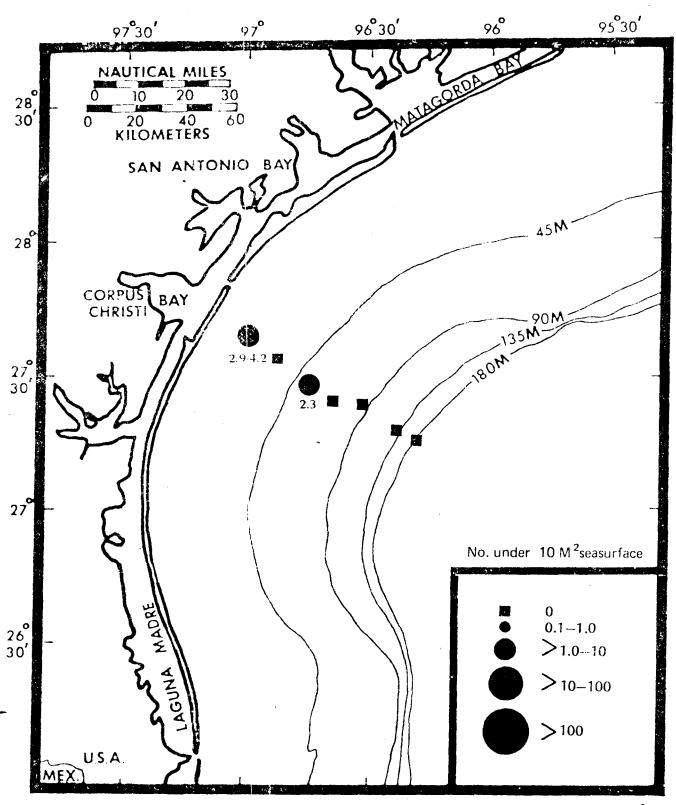


Fig. 149. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise VI.

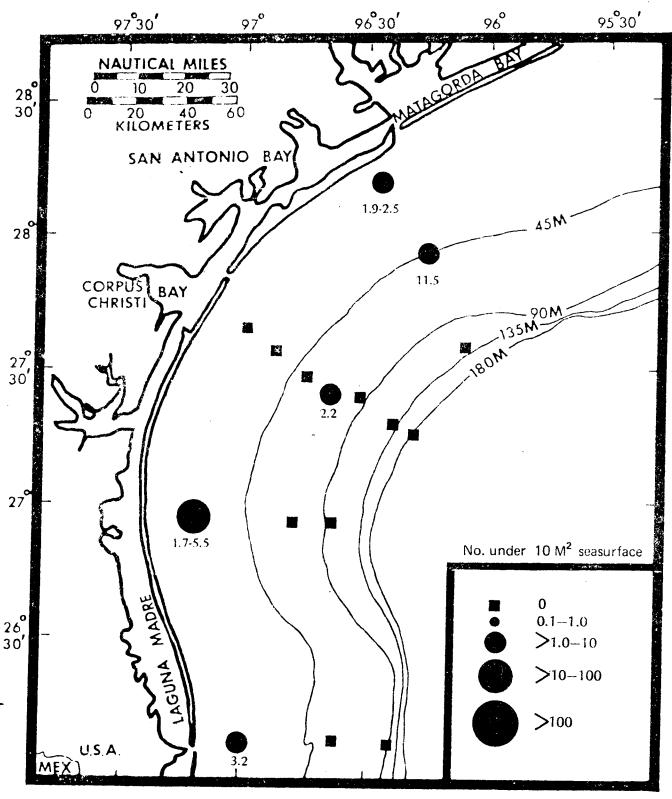


Fig. 150. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 333  $\mu$  mesh net on Cruise VII.

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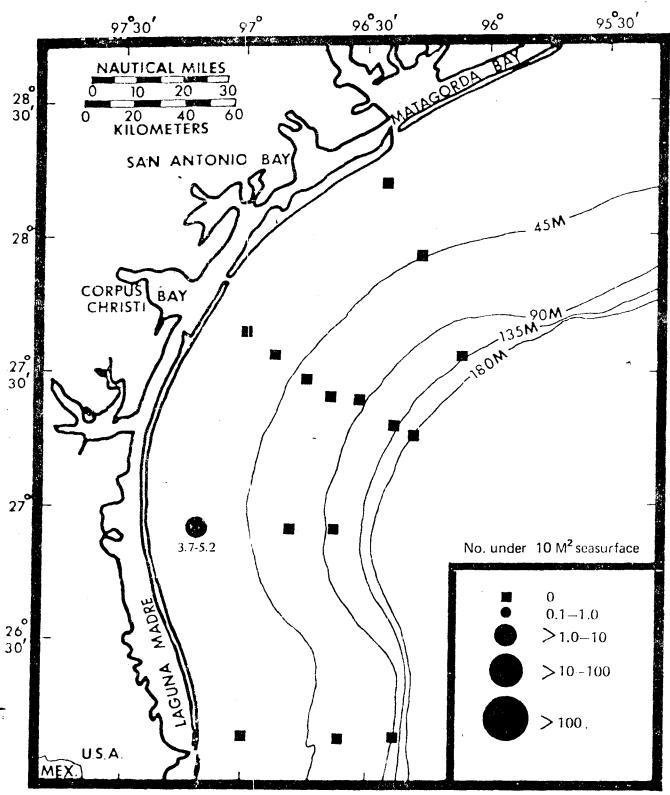


Fig. 151. Scomberomorus maculatus, estimate of number of larvae under 10 m $^2$  of sea surface computed from number of larvae captured in the 505  $\mu$  mesh net on Cruise VII.

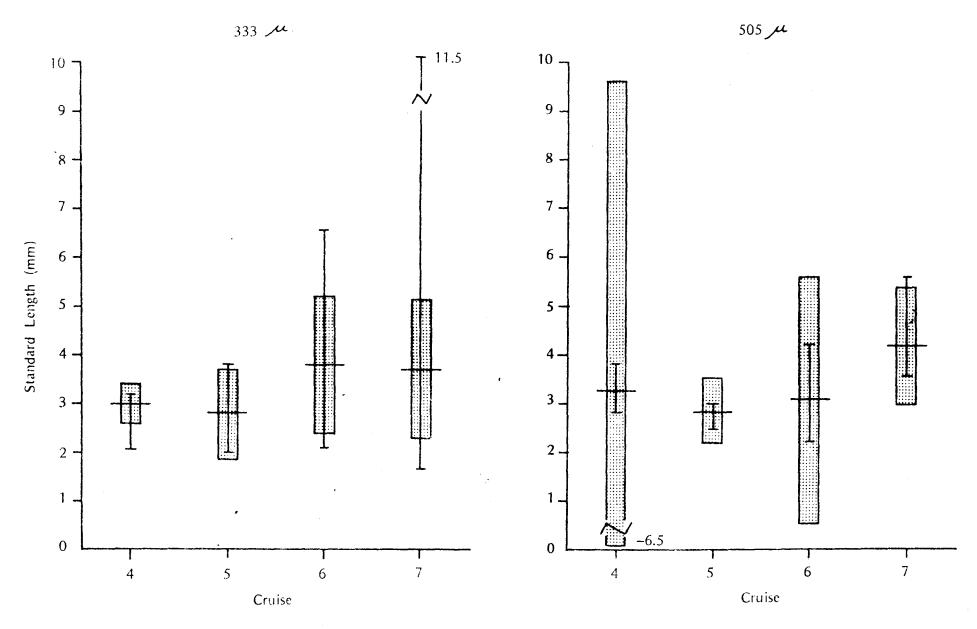


Fig. 152. Scomberomorus maculatus, length frequencies of larvae captured by the 333 μ and 505 μ mesh net on each of the cruises during the 1976 Baseline Survey. Horizontal line = mean, vertical
 line = range, stippled bar = 95% confidence interval.

## S. maculatus

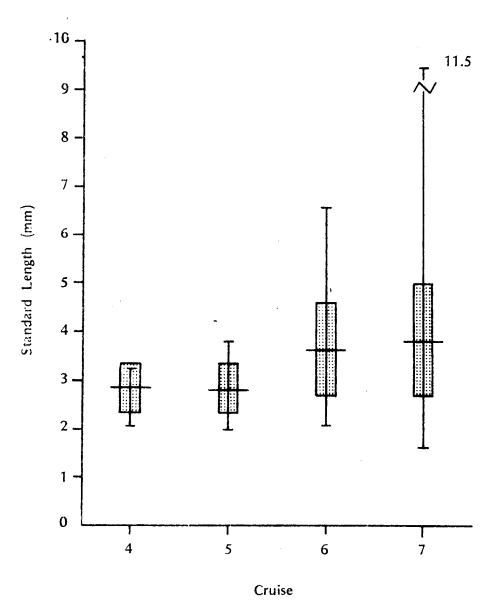


Fig. 153. Scomberomorus maculatus, length frequencies of larvae captured on each of the cruises during the 1976 Baseline Survey, mesh sizes combined. Horizontal line = mean, vertical line = range, stippled bar = 95% confidence interval.

SPECIAL APPENDIX

(Table 1)

Appendix table 1. Identification, calculated numbers and size range of ichthyoplankton obtained from 1976 BLM plankton samples by date, transect, station and mesh size.

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                      | Number<br>larvae per<br>1,000 m <sup>3</sup>                       | Min.<br>size<br>(mm)                                                      | Max.<br>size<br>(mm)                                                                             |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 2-03           | I-l                  | 505                 | 207                                        | Clupeidae<br>Clupeidae - <u>Brevoortia patronus</u><br>Stromateidae - <u>Peprilus burti</u><br>Unknown                                                                                                                                                      | 13<br>26<br>26<br>13                                               | 5.4<br>15.0<br>5.3<br>3.8                                                 | 5.4<br>17.0<br>5.9<br>3.8                                                                        |
| , 2-03         | I-1                  | 333                 | 112                                        | Clupeidae Clupeidae - Brevoortia patronus Engraulidae Sciaenidae - Cynoscion sp. Stromateidae - Peprilus burti Unknown                                                                                                                                      | 12<br>50<br>12<br>37<br>50<br>25                                   | 4.1<br>15.0<br>4.2<br>2.0<br>2.0<br>2.3                                   | 4.1<br>17.0<br>4.2<br>3.6<br>5.0<br>2.4                                                          |
| 2-02           | I-2                  | 505                 | 1,279                                      | Blenniidae Bothidae Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Clupeidae Clupeidae - Etrumeus teres Gobiidae Myctophidae Nettastomidae Serranidae Stromateidae - Peprilus burti Synodontidae Triglidae - Prionotus sp. Unknown | 9<br>17<br>178<br>17<br>432<br>220<br>9<br>9<br>9<br>51<br>17<br>9 | 3.3<br>5.0<br>7.0<br>3.1<br>4.8<br>6.8<br>4.7<br>7.2<br>3.4<br>3.6<br>2.5 | 3.3<br>9.5<br>30.0<br>3.3<br>8.0<br>15.0<br>8.2<br>4.7<br>7.2<br>5.1<br>3.5<br>3.3<br>2.6<br>2.5 |
| 2-02           | I <b>-</b> 2         | 333                 | 1,537                                      | Bregmacerotidae - <u>Bregmaceros</u> <u>atlanticus</u> Clupeidae                                                                                                                                                                                            | 156<br>634                                                         | 2.2<br>4.0                                                                | 21.0<br>9.8                                                                                      |

# Appendix table 1. (Continued)

|                |                      | Mesh             | Number                           |                                          | Number               | Min.         | Max. |
|----------------|----------------------|------------------|----------------------------------|------------------------------------------|----------------------|--------------|------|
| Date<br>(1976) | Transect-<br>station | size<br>(µ)      | eggs per<br>1,000 m <sup>3</sup> | Lowron                                   | larvae per           | size<br>(mm) | size |
| (19/0)         | Station              | (μ)              | 1,000 m <sup>3</sup>             | Larvae                                   | 1,000 m <sup>3</sup> | (mm)         | (mm) |
| 2-02           | <b>1</b> -2          | 333              |                                  | Clupeidae - Brevoortia patronus          | 17                   | 13.0         | 15.0 |
|                |                      |                  |                                  | Clupeidae - Etrumeus teres               | 122                  | 8.0          | 15.0 |
|                |                      |                  |                                  | Congridae                                | 9                    | 6.0          | 6.0  |
|                | ,                    |                  |                                  | Cynoglossidae - Symphurus piger          | 9                    | 20.0         | 20,0 |
|                |                      |                  |                                  | Nettastomidae                            | 9                    | 7.8          | 7.8  |
|                |                      |                  |                                  | Ophichthidae - Myrophis sp.              | 9                    | 66.0         | 66.0 |
|                |                      |                  |                                  | Sciaenidae - Cynoscion sp.               | 17                   | 2.3          | 2.5  |
|                |                      |                  |                                  | Serranidae - <u>Centropristis</u> sp.    | 35                   | 2.8          | 5.8  |
|                |                      |                  |                                  | Stromateidae - Peprilus burti            | 26                   | 2.1          | 6.0  |
|                |                      |                  |                                  | Synodontidae - Saurida sp.               | 9                    | 3.0          | 3.0  |
|                |                      |                  |                                  | Synodontidae - Synodus foetens           | 17                   | 3.4          | 3.5  |
|                |                      |                  |                                  | Triglidae - Prionotus sp.                | 17                   | 3.7          | 6.5  |
|                |                      |                  |                                  | Unknown                                  | 17                   | 3.3          | 3.3  |
| 2-03           | I-3                  | I <b>-</b> 3 505 | 493                              | Bothidae                                 | 39                   | 6.7          | 8.8  |
|                |                      |                  |                                  | Bregmacerotidae - Bregmaceros atlanticus | 3                    | 2.7          | 2.7  |
|                |                      |                  | •                                | Carangidae - Trachurus lathami           | 3                    | 4.4          | 4.4  |
|                |                      |                  |                                  | Gobiidae                                 | 6                    | 6.3          | 7.8  |
|                |                      |                  |                                  | Gonostomatidae - Cyclothone sp.          | 3                    | 5.7          | 5.7  |
|                |                      |                  |                                  | Moridae                                  | 3                    | 4.0          | 4.0  |
|                |                      |                  |                                  | Mugilidae - Mugil sp.                    | 3                    | 3.2          | 3.2  |
|                |                      |                  |                                  | Mugilidae - Mugil cephalus               | 3                    | 25.0         | 25.0 |
|                |                      |                  |                                  | Myctophidae - Diaphus sp.                | 14                   | 4.0          | 5.8  |
|                |                      |                  |                                  | Myctophidae - Lampanyctus sp.            | 8                    | 3.6          | 4.0  |
|                |                      |                  |                                  | Myctophidae - Myctophum obtusirostre     | 3                    | 5.2          | 5.2  |
|                |                      |                  |                                  | Paralepididae                            | 3                    | 8.6          | 8.6  |
|                |                      |                  |                                  | Paralepididae - <u>Lestidiops</u> sp.    | 3                    | 25.0         | 25.0 |
|                |                      |                  |                                  | Stromateidae                             | 6                    | 2.5          | 4.9  |
|                |                      |                  |                                  | Stromateidae - Cubiceps pauciradiatus    | 3                    | 4.3          | 4.3  |
|                |                      |                  |                                  | Stromateidae - Peprilus burti            | 11                   | 2.4          | 4.2  |

# Appendix table 1. (Continued)

| Date   | Transect- | Mesh<br>size | Number<br>eggs per   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Number<br>larvae per                                                                                                                                                                                                   | Min.<br>size                                                                                                                                        | Max.<br>size                                                                                                                                                   |
|--------|-----------|--------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1976) | station   | (µ)          | 1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1,000 m <sup>3</sup>                                                                                                                                                                                                   | (mm)                                                                                                                                                | (mm)                                                                                                                                                           |
| 2-03   | I-3       | 505          |                      | Triglidae - <u>Prionotus</u> sp.<br>Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3<br>3                                                                                                                                                                                                                 | 3.4<br>5.3                                                                                                                                          | 3.4<br>5.3                                                                                                                                                     |
| 2-03   | I-3       | 333          | 719                  | Bothidae Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Gobiidae Gonostomatidae - Vinciguerria sp. Melanostomiatidae Moridae Mugilidae - Mugil sp. Myctophidae Myctophidae - Ceratoscopelus sp. Myctophidae - Diaphus sp. Myctophidae - Hygophum sp. Myctophidae - Hygophum reinhardti Myctophidae - Hygophum reinhardti Myctophidae - Myctophum obtusirostre Ophichthidae - Myrophis sp. Paralepididae Scaridae Stromateidae Stromateidae Stromateidae - Peprilus burti Synodontidae - Diplospinous multistriatus | 25<br>43<br>29<br>18<br>7<br>4<br>18<br>7<br>15<br>7<br>4<br>7<br>4<br>4<br>4<br>7<br>15<br>4<br>4<br>4<br>4<br>7<br>15<br>7<br>4<br>4<br>4<br>4<br>4<br>7<br>4<br>4<br>4<br>4<br>7<br>4<br>4<br>4<br>4<br>4<br>4<br>4 | 6.7<br>1.8<br>2.8<br>7.6<br>8.0<br>3.9<br>8.3<br>7.2<br>2.7<br>3.5<br>0.0<br>11.0<br>8.0<br>11.0<br>8.0<br>11.0<br>8.0<br>11.0<br>8.0<br>11.0<br>11 | 9.0<br>30.0<br>8.0<br>8.0<br>9.0<br>4.3<br>9.0<br>4.3<br>7.2<br>7.1<br>3.0<br>10.0<br>4.3<br>85.0<br>10.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>11.0<br>1 |
| 2-02   | II-1      | 505          | 937                  | Triglidae - Prionotus sp.  Bothidae - <u>Paralichthys</u> sp. Sciaenidae - <u>Cynoscion</u> sp. Stromateidae - <u>Peprilus</u> burti                                                                                                                                                                                                                                                                                                                                                                                                        | 4<br>11<br>22<br>11                                                                                                                                                                                                    | 3.4<br>7.0<br>3.4<br>2.6                                                                                                                            | 3.4<br>7.0<br>5.1<br>2.6                                                                                                                                       |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                              | Min.<br>size<br>(mm)      | Max.<br>size<br>(mm)                                                                                                                                                                                                                        |
|----------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-02           | II-l                 | 505                 |                                            | Triglidae - Prionotus sp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 11                                                                                                        | 6.0                       | 6.0                                                                                                                                                                                                                                         |
| 2-02           | II-1                 | 333                 | 587                                        | Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10                                                                                                        | 2.0                       | 2.0                                                                                                                                                                                                                                         |
| 2-02           | II-2                 | 505                 | 1,478                                      | Bothidae Branchiostegidae - Caulolatilus sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Clupeidae Cynoglossidae - Symphurus sp. Gobiidae Gonostomatidae - Cyclothone sp. Kyphosidae - Kyphosus sp. Myctophidae - Diaphus sp. Myctophidae - Hygophum sp. Myctophidae - Hygophum reinhardti Myctophidae - Myctophum sp. Nettastomidae Scopelosauridae - Scopelosaurus sp. Serranidae Sparidae Stromateidae - Peprilus burti Synodontidae - Saurida sp. Synodontidae - Synodus foetens Tetraodontidae Triglidae - Prionotus sp. | 4<br>55<br>267<br>237<br>487<br>4<br>85<br>4<br>9<br>4<br>13<br>25<br>4<br>13<br>25<br>4<br>13<br>4<br>13 | 5.60024925977680576220522 | 5.6<br>4.0<br>3.0<br>9.0<br>5.9<br>9.0<br>5.9<br>6.8<br>20.5<br>2.5<br>7.8<br>2.5<br>7.8<br>2.5<br>7.8<br>2.5<br>7.8<br>2.5<br>7.8<br>2.5<br>7.8<br>2.5<br>7.8<br>2.5<br>7.8<br>7.8<br>7.8<br>7.8<br>7.8<br>7.8<br>7.8<br>7.8<br>7.8<br>7.8 |
| 2-02           | II-2                 | 333                 | 1,950                                      | Unknown  Bothidae  Branchiostegidae - Caulolatilus sp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6<br>102                                                                                                  | 2.7<br>2.7<br>1.5         | 2.7<br>2.7<br>3.6                                                                                                                                                                                                                           |

Appendix table 1. (Continued)

|        |               | Mesh | Number                               |                                           | Number               | Min. | Max. |
|--------|---------------|------|--------------------------------------|-------------------------------------------|----------------------|------|------|
| Date   | Transect-     | size | eggs per                             |                                           | larvae per           | size | size |
| (1976) | station       | (µ)  | 1,000 m <sup>3</sup>                 | Larvae                                    | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 2-02   | 11-2          | 333  |                                      | Bregmacerotidae - Bregmaceros atlanticus  | 633                  | 1.3  | 11.0 |
|        |               | 333  |                                      | Carangidae - Trachurus lathami            | 416                  | 1.7  | 3.8  |
|        |               |      |                                      | Chauliodontidae - Chauliodus sp.          | 6                    | 14.0 | 14.0 |
|        |               |      |                                      | Clupeidae                                 | 665                  | 2.4  | 6.1  |
|        |               |      |                                      | Clupeidae - Brevoortia patronus           | 6                    | 8.9  | 8.9  |
|        |               |      |                                      | Clupeidae - Etrumeus teres                | 109                  | 8.1  | 13.0 |
|        |               |      |                                      | Congridae                                 | 6                    | 10.0 | 10.0 |
|        |               |      |                                      | Gobiidae                                  | 460                  | 1.8  | 4.9  |
|        | •             |      |                                      | Gonostomatidae - Cyclothone sp.           | 19                   | 4.3  | 5.0  |
|        |               |      |                                      | Gonostomatidae - Vinciguerria sp.         | 26                   | 4.6  | 7.1  |
|        |               |      | Myctophidae - Benthosema suborbitale | 6                                         | 3.3                  | 3.3  |      |
|        |               |      |                                      | Myctophidae - Diaphus sp.                 | 26                   | 3.1  | 5.5  |
|        |               |      |                                      | Myctophidae - Lampanyctus sp.             | 6                    | 3.3  | 3.3  |
|        |               |      |                                      | Nettastomidae                             | 38                   | 5.5  | 13.0 |
|        |               |      |                                      | Ophidiidae                                | 6                    | 5.0  | 5.0  |
|        |               |      |                                      | Sciaenidae                                | 6                    | 4.0  | 4.0  |
|        |               |      |                                      | Serranidae                                | 185                  | 1.6  | 3.6  |
|        |               |      |                                      | Serranidae - Centropristis sp.            | 64                   | 4.3  | 6.2  |
|        |               |      |                                      | Sparidae                                  | 13                   | 8.2  | 9.1  |
|        |               |      |                                      | Stromateidae                              | 6                    | 3.2  | 3.2  |
|        |               |      |                                      | Stromateidae - Peprilus burti             | 51                   | 2.5  | 6.4  |
|        |               |      |                                      | Synodontidae - Saurida sp.                | 192                  | 2.1  | 6.6  |
|        |               |      |                                      | Synodontidae - Synodus foetens            | 19                   | 3.7  | 8.5  |
|        |               |      |                                      | Trichiuridae - Diplospinous multistriatus | 6                    | 7.2  | 7.2  |
|        |               |      |                                      | Trichiuridae - Trichiurus lepturus        | 6                    | 9.6  | 9.6  |
|        |               |      |                                      | Triglidae - Prionotus sp.                 | 154                  | 1.9  | 5.7  |
|        |               |      |                                      | Unknown                                   | 58                   | 2.3  | 3.9  |
| 2-01   | II <b>-</b> 3 | 505  | 1,649                                | Antennariidae                             | . 2                  | 6.0  | 6.0  |
| 2-01   | ر-بب          | 707  | 1,049                                | Bathylagidae - Bathylagus sp.             | . 2                  | 4.1  | 4.1  |
|        |               |      |                                      | David Taban - David Taban ph              |                      |      |      |

# Appendix table 1. (Continued)

| D . 1  | m         | Mesh | Number                            |                                           | Number               | Min. | Max.  |
|--------|-----------|------|-----------------------------------|-------------------------------------------|----------------------|------|-------|
| Date   | Transect- | size | eggs per                          | •                                         | larvae per           | size | size  |
| (1976) | station   | (µ)  | 1,000 m <sup>3</sup>              | Larvae                                    | 1,000 m <sup>3</sup> | (mm) | (mm)  |
| 2-01   | II-3      | 505  |                                   | Branchiostegidae                          | 2                    | 10.0 | 10.0  |
|        |           |      |                                   | Branchiostegidae - Caulolatilus sp.       | 2                    | 2.6  | 2.6   |
|        |           |      |                                   | Bregmacerotidae - Bregmaceros sp.         | 6                    | 3.0  | 4.1   |
|        |           |      |                                   | Bregmacerotidae - Bregmaceros atlanticus  | 23                   | 2.0  | 36.0  |
|        |           |      |                                   | Carangidae - Trachurus lathami            | 38                   | 2.7  | 4.6   |
|        |           |      |                                   | Chiasmodontidae                           | 2                    | 4.1  | 4.1   |
|        |           |      |                                   | Gadidae - Urophycis sp.                   | 2                    | 1.8  | 1.8   |
|        |           |      |                                   | Gobiidae                                  | 42                   | 5.1  | 16.0  |
|        |           |      |                                   | Gonostomatidae - Cyclothone sp.           | 4                    | 6.9  | 7.0   |
|        |           |      |                                   | Gonostomatidae - Maurolicus sp.           | 6                    | 2.6  | 3.5   |
| ·      |           |      | Gonostomatidae - Vinciguerria sp. | 25                                        | 2.3                  | 11.0 |       |
|        |           |      |                                   | Mugilidae - Mugil sp.                     | 6                    | 2.1  | 3.0   |
|        |           |      |                                   | Myctophidae                               | 2                    | 5.2  | 5.2   |
|        |           |      |                                   | Myctophidae - Benthosema suborbitale      | 17                   | 3.5  | 6.3   |
|        |           |      |                                   | Myctophidae - Ceratoscopelus maderensis   | 2                    | 5.2  | 5.2   |
|        |           |      |                                   | Myctophidae - Diaphus sp.                 | 23                   | 2.7  | 5.0   |
|        |           |      |                                   | Myctophidae - Hygophum sp.                | 6                    | 4.3  | 6.1   |
|        |           |      |                                   | Myctophidae - Hygophum reinhardti         | 2                    | 5.0  | 5.0   |
|        |           |      |                                   | Myctophidae - Lampanyctus sp.             | 6                    | 2.8  | 5.1   |
|        |           |      |                                   | Myctophidae - Myctophum sp.               | 15                   | 3.0  | 5.0   |
|        |           |      |                                   | Myctophidae - Myctophum obtusirostre      | 4                    | 3.2  | 4.0   |
|        |           |      |                                   | Myctophidae - Notolychnus valdiviae       | 2                    | 4.0  | 4.0   |
|        |           |      |                                   | Nettastomidae                             | 2                    | 52.0 | 52.0  |
|        |           |      |                                   | Ophichthidae                              | 2                    | 4.9  | 4.9   |
|        |           |      |                                   | Paralepididae                             | 6                    | 11.0 | 14.0  |
|        |           |      |                                   | Scopelosauridae - Scopelosaurus mauli     | 2                    | 33.0 | 33.0  |
|        |           |      |                                   | Serranidae                                | 2                    | 3.0  | . 3.0 |
|        |           |      |                                   | Stromateidae                              | 2                    | 3.0  | 3.0   |
|        |           |      |                                   | Trichiuridae - Diplospinous multistriatus | 6                    | 4.5  | 5.8   |
|        |           |      |                                   | Unknown                                   | 23                   | 1.7  | 7.0   |

Appendix table 1. (Continued)

| <del></del> | <u> </u>  | Mesh | Number               |                                            | Number               | Min.  | Max.  |
|-------------|-----------|------|----------------------|--------------------------------------------|----------------------|-------|-------|
| Date        | Transect- | size | eggs per             |                                            | larvae per           | size  | size  |
| (1976)      | station   | (µ)  | 1,000 m <sup>3</sup> | Larvae                                     | 1,000 m <sup>3</sup> | (mm)  | (mm)  |
|             |           |      |                      |                                            |                      |       |       |
| 2-01        | II-3      | 333  | 1,712                | Bathylagidae - Bathylagus sp.              | 2                    | 5.0   | 5.0   |
|             |           |      |                      | Bothidae                                   | 4                    | 4.0   | 7.7   |
|             |           |      |                      | Branchiostegidae - <u>Caulolatilus</u> sp. | 2                    | 2.6   | 2.6   |
|             |           |      |                      | Brægmacerotidae - Bregmaceros sp.          | . 4                  | 2.4   | 16.0  |
|             |           |      |                      | Bregmacerotidae - Bregmaceros atlanticus   | 40                   | 1.7   | 12.0  |
|             |           |      |                      | Carangidae - Trachurus lathami             | 21                   | 2.9   | 4.0   |
|             |           |      |                      | Chauliodontidae - Chauliodus sp.           | 2                    | 7.7   | 7.7   |
|             | •         |      |                      | Chiasmodontidae                            | 2                    | 8.8   | 8.8   |
|             |           |      |                      | Congridae                                  | 2                    | 120.0 | 120.0 |
|             |           |      |                      | Gobiidae                                   | 25                   | 2.9   | 10.0  |
|             |           |      |                      | Gonostomatidae - Cyclothone sp.            | 6                    | 4.2   | 6.0   |
|             |           |      |                      | Gonostomatidae - Gonostomus elongatum      | 14                   | 18.0  | 21.0  |
|             |           |      |                      | Gonostomatidae - Maurolicus sp.            | 2                    | 5.6   | 5.6   |
|             |           |      |                      | Gonostomatidae - Vinciguerria sp.          | 44                   | 3.0   | 7.8   |
|             |           |      |                      | Myctophidae                                | 6                    | 3.5   | 5.0   |
|             |           |      |                      | Myctophidae - Benthosema suborbitale       | 19                   | 3.1   | 4.7   |
|             |           |      |                      | Myctophidae - Diaphus sp.                  | 11                   | 3.3   | 5.0   |
|             |           |      |                      | Myctophidae - Diogenichthys atlanticus     | 2                    | 5.5   | 5.5   |
|             |           |      |                      | Myctophidae - Hygophum sp.                 | 9                    | 2.3   | 5.9   |
|             |           |      |                      | Myctophidae - Lampanyctus sp.              | 2                    | 3.9   | 3.9   |
|             |           |      |                      | Myctophidae - Myctophum sp.                | 13                   | 3.0   | 6.0   |
|             |           |      |                      | Myctophidae - Myctophum obtusirostre       | 2                    | 4.0   | 4.0   |
|             |           |      |                      | Ophichthidae                               | 2                    | 63.0  | 63.0  |
|             |           |      |                      | Ophidiidae                                 | 2                    | 4.0   | 4.0   |
|             |           |      |                      | Paralepididae                              | 6                    | 5.7   | 11.0  |
|             |           |      |                      | Scaridae                                   | 4                    | 8.0   | 8.4   |
|             |           |      |                      | Scopelosauridae - Scopelosaurus sp.        | 2                    | 7.5   | 7.5   |
|             |           |      |                      | Stromateidae - Peprilus burti              | 11                   | 2.1   | 2.8   |
|             |           |      |                      | Trichiuridae - Diplospinous multistriatus  | 2                    | 5.3   | 5.3   |
|             |           |      |                      | Unknown                                    | 34                   | 1.5   | 8.5   |

Appendix table 1. (Continued)

| Date   | Transect- | Mesh<br>size | Number<br>eggs per   |                                                                                            | Number<br>larvae per | Min,<br>size       | Max.<br>size       |
|--------|-----------|--------------|----------------------|--------------------------------------------------------------------------------------------|----------------------|--------------------|--------------------|
| (1976) | station   | (µ)          | 1,000 m <sup>3</sup> | Iarvae                                                                                     | 1,000 m <sup>3</sup> | (mm)               | (mm)               |
| 2-02   | II-4      | 505          | 2,279                | Bothidae - <u>Paralichthys</u> sp.  Carangidae - <u>Trachurus</u> <u>lathami</u> Clupeidae | 70<br>23<br>233      | 3.2<br>3.2<br>4.3  | 5.2<br>3.2<br>8.2  |
|        |           | -            |                      | Clupeidae - Brevoortia patronus<br>Sciaenidae - Leiostomus xanthurus<br>Serranidae         | 23<br>93<br>47       | 14.0<br>3.8<br>4.1 | 14.0<br>7.0<br>5.3 |
| 2-02   | II-4      | 333          | 1,944                | Bothidae - <u>Paralichthys</u> sp. Branchiostegidae - Caulolatilus sp.                     | 22<br>22             | 6.4<br>3.0         | 6.4<br>3.0         |
|        |           |              |                      | Bregmacerotidae - Bregmaceros atlanticus<br>Carangidae - Trachurus lathami                 | 22<br>22             | 3.5<br>3.2         | 3.5<br>3.2         |
|        |           |              |                      | Clupeidae                                                                                  | 432                  | 4.8                | 9.5                |
|        |           |              |                      | Clupeidae - <u>Brevoortia patronus</u><br>Clupeidae - <u>Etrumeus teres</u>                | 22<br>86             | 17.0<br>10.0       | 17.0<br>15.0       |
|        |           |              |                      | Gobiidae<br>Gonostomatidae - Cyclothone sp.                                                | 22<br>22             | 1.6<br>9.8         | 1.6<br>9.8         |
|        |           |              |                      | Sciaenidae - <u>Leiostomus xanthurus</u><br>Serranidae                                     | 22<br>65             | 7.0<br>3.2         | 7.0<br>4.0         |
|        |           |              |                      | Sparidae                                                                                   | 22                   | 11.0               | 11.0               |
|        |           |              |                      | Stromateidae<br>Stromateidae - Peprilus burti                                              | 22<br>22             | 3.6<br>2.8         | 3.6<br>2.8         |
|        |           |              |                      | Synodontidae - Saurida sp.                                                                 | 22<br>43             | 2.6<br>4.1         | 2.6                |
|        |           |              |                      | Triglidae - <u>Prionotus</u> sp.<br>Unknown                                                | 43<br>43             | 1.3                | 4.5<br>1.5         |
| 2-02   | II-5      | 505          | 1,797                | Branchiostegidae - Caulolatilus sp.                                                        | 23                   | 2.5                | 5.0                |
|        |           |              |                      | Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus                 | 23<br>79             | 3.0<br>2.4         | 15.0<br>9.8        |
|        |           |              |                      | Carangidae - <u>Trachurus lathami</u><br>Chauliodontidae - <u>Chauliodus</u> sp.           | 45<br>6              | 2.8<br>30.0        | 8.2<br>30.0        |

Appendix table 1. (Continued)

|        | <u> </u>      | Mesh | Number               |                                           | Number               | Min. | Max. |
|--------|---------------|------|----------------------|-------------------------------------------|----------------------|------|------|
| Date   | Transect-     | size | eggs per             |                                           | larvae per           | size | size |
| (1976) | station       | (µ)  | 1,000 m <sup>3</sup> | Larvae                                    | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 2-02   | II <b>-</b> 5 | 505  |                      | Congridae                                 | 6                    | 28.0 | 28.0 |
| 2-02   | 11 /          | ,,,  |                      | Gobiidae                                  | 45                   | 6.3  | 8.3  |
|        |               |      |                      | Gonostomatidae - Cyclothone sp.           | 6                    | 5.2  | 5.2  |
|        |               |      |                      | Gonostomatidae - Maurolicus sp.           | 6                    | 9.5  | 9.5  |
|        |               |      |                      | Gonostomatidae - Vinciguerria sp.         | 6                    | 6.0  | 6.0  |
|        |               |      |                      | Moridae                                   | 6                    | 12.0 | 12.0 |
|        |               |      |                      | Myctophidae                               | 11                   | 3.2  | 4.0  |
|        |               |      |                      | Myctophidae - Benthosema suborbitale      | 6                    | 3.6  | 3.6  |
|        |               |      |                      | Myctophidae - Diaphus sp.                 | 28                   | 3,2  | 9.0  |
|        |               |      |                      | Myctophidae - Hygophum sp.                | 28                   | 6.5  | 10.0 |
|        |               |      |                      | Myctophidae - Myctophum sp.               | 11                   | 4.9  | 5.8  |
|        |               |      |                      | Myctophidae - Myctophum asperum           | 6                    | 5.8  | 5.8  |
|        |               |      |                      | Myctophidae - Myctophum obtusirostre      | 11                   | 4.0  | 4.5  |
|        |               |      |                      | Scombridae - Scomber sp.                  | 45                   | 4.3  | 11.0 |
|        |               |      |                      | Serranidae                                | 11                   | 3.2  | 4.8  |
|        |               |      |                      | Trichiuridae - Diplospinous multistriatus | . 6                  | 5.7  | 5.7  |
|        |               |      |                      | Unknown                                   | 40                   | 2.0  | 6.0  |
| 2-02   | II-5          | 333  | 1,743                | Bathylagidae - Bathylagus sp.             | 6                    | 5.0  | 5.0  |
|        | /             | 555  | -,,                  | Bothidae                                  | 6                    | 9.8  | 9.8  |
|        |               |      |                      | Branchiostegidae - Caulolatilus sp.       | 6                    | 3.0  | 3.0  |
|        |               |      |                      | Bregmacerotidae - Bregmaceros sp.         | 6                    | 14.0 | 14.0 |
|        |               |      |                      | Bregmacerotidae - Bregmaceros atlanticus  | 133                  | 1.6  | 9.1  |
|        |               |      |                      | Carangidae - Trachurus lathami            | 50                   | 3.1  | 8.7  |
|        |               |      |                      | Chauliodontidae - Chauliodus sp.          | 6                    | 8.0  | 8.0  |
|        |               |      |                      | Congridae                                 | 6                    | 29.0 | 29.0 |
|        |               |      |                      | Gobiidae                                  | 33                   | 3.0  | 8.0  |
|        |               |      |                      | Gonostomatidae - Cyclothone sp.           | 11                   | 7.0  | 10.0 |
|        |               |      |                      | Gonostomatidae - Maurolicus sp.           | 11                   | 7.2  | 7.6  |
|        |               |      |                      | Mugilidae - Mugil sp.                     | 39                   | 2.5  | 4.2  |
|        |               |      |                      | Myctophidae - Benthosema suborbitale      | 11                   | 4.1  | 4.6  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Iarvae                                                                         | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max size |
|----------------|----------------------|---------------------|--------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------|----------------------|----------|
| 2-02           | II <b>-</b> 5        | 333                 |                                            | Myctophidae - Ceratoscopelus maderensis                                        | 17                                           | 5.0                  | 14.(     |
| 2-02           | 11-7                 | 222                 |                                            | Myctophidae - Ceratoscopelus maderensis  Myctophidae - Ceratoscopelus warmingi | 6                                            | 5.8                  | 5.8      |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                                                      | 22                                           | 3.2                  | 4.5      |
|                |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus                                         | 6                                            | 4.1                  | 4.3      |
|                |                      |                     |                                            | Myctophidae - Hygophum sp.                                                     | 33                                           | 5.2                  | 8.7      |
| •              |                      |                     | Myctophidae - Lampanyctus sp.              | 6                                                                              | 2.8                                          | 2.8                  |          |
|                |                      |                     | Myctophidae - Myctophum sp.                | 28                                                                             | 4.0                                          | 10.0                 |          |
|                |                      |                     | Myctophidae - Notolychnus valdiviae        | 6                                                                              | 6.5                                          | 6.5                  |          |
|                |                      |                     | Nettastomidae                              | 6                                                                              | 6.5                                          | 6.5                  |          |
|                |                      |                     |                                            | Paralepididae                                                                  | 11                                           | 18.0                 | 24.0     |
| _              |                      |                     |                                            | Scombridae - Auxis sp.                                                         | 6                                            | 12.0                 | 12.0     |
|                |                      |                     | Sparidae Sparidae                          | 17                                                                             | 3.1                                          | 6.3                  |          |
|                |                      |                     |                                            | Synodontidae - Synodus foetens                                                 | 11                                           | 3.3                  | 3.3      |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                                                      | 6                                            | 3.0                  | 3.0      |
|                |                      |                     |                                            | Unknown                                                                        | 227                                          | 1.6                  | 8.5      |
| 2-02           | II <b>-</b> 6        | 505                 | 748                                        | Bothidae                                                                       | 10                                           | 6.5                  | 7.9      |
|                |                      |                     |                                            | Branchiostegidae - Caulolatilus sp.                                            | 13                                           | 2,4                  | 2.8      |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.                                              | 8                                            | 3.7                  | 4.5      |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus                                       | <b>7</b> 7                                   | 1.9                  | 9.6      |
|                |                      |                     |                                            | Carangidae - Trachurus lathami                                                 | 26                                           | 2.4                  | 14.0     |
|                |                      |                     |                                            | Chauliodontidae - Chauliodus sp.                                               | 3                                            | 26.0                 | 26.0     |
|                |                      |                     |                                            | Chiasmodontidae                                                                | 5                                            | 4.0                  | 14,0     |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.                                                  | 3                                            | 8.1                  | 8,1      |
|                |                      |                     |                                            | Gobiidae                                                                       | 72                                           | 5.8                  | 12,0     |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                                                | 8                                            | 3.7                  | 8.0      |
|                |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.                                              | 18                                           | 2.7                  | 13.0     |
|                |                      |                     |                                            | Kyphosidae - Kyphosus sp.                                                      | 3                                            | 3.3                  | 3.3      |
|                |                      |                     |                                            | Myctophidae                                                                    | 3                                            | 4.9                  | 4.9      |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi                                          | 3                                            | 6.5                  | 6.5      |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                 | Min.<br>size<br>(mm)                                        | Max.<br>size<br>(mm)                                                                                                                                  |
|----------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-02           | II-6                 | 505                 |                                            | Myctophidae - Diaphus sp.  Myctophidae - Hygophum sp.  Myctophidae - Lampanyctus sp.  Serranidae  Stromateidae  Stromateidae - Peprilus burti  Trichiuridae - Diplospinous multistriatus  Triglidae - Prionotus sp.  Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 36<br>16<br>36<br>10<br>8<br>5<br>3<br>8                                                     | 3.0<br>4.5<br>2.8<br>2.7<br>3.0<br>2.6<br>4.5<br>2.8<br>1.5 | 6.0<br>6.8<br>5.9<br>3.4<br>4.0<br>3.3<br>4.5<br>3.8<br>13.0                                                                                          |
| 2-02           | 11-6                 | 333                 | 673                                        | Bathylagidae - Bathylagus sp.  Bothidae  Branchiostegidae - Caulolatilus sp.  Bregmacerotidae - Bregmaceros sp.  Bregmacerotidae - Bregmaceros atlanticus  Carangidae - Trachurus lathami  Gadidae - Urophycis sp.  Gobiidae  Gonostomatidae - Cyclothone sp.  Gonostomatidae - Vinciguerria sp.  Moridae  Mugilidae - Mugil sp.  Myctophidae  Myctophidae - Ceratoscopelus warmingi  Myctophidae - Diaphus sp.  Myctophidae - Hygophum sp.  Myctophidae - Hygophum reinhardti  Myctophidae - Lampanyctus sp.  Myctophidae - Myctophum sp.  Myctophidae - Notolychnus valdiviae | 3<br>8<br>13<br>21<br>116<br>15<br>5<br>36<br>26<br>5<br>3<br>15<br>10<br>5<br>36<br>10<br>5 | 6.9477590503389810273<br>6.1.1.2.1.6.3.5.4.2.8.2.3.6.2.7.3  | 6.0<br>6.8<br>2.8<br>3.0<br>4.7<br>2.7<br>7.5<br>5.5<br>4.3<br>3.6<br>11.0<br>2.0<br>5.0<br>5.0<br>5.0<br>5.0<br>5.0<br>5.0<br>5.0<br>5.0<br>5.0<br>5 |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                           | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|--------------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 2-02           | II <b>-</b> 6        | 333                 |                                            | Nettastomidae                                    | 3                                            | 6.0                  | 6.0                  |
|                |                      | 333                 |                                            | Ophichthidae                                     | 3                                            | 81.0                 | 81.0                 |
|                |                      |                     |                                            | Paralepididae                                    | 5                                            | 4.0                  | 4.9                  |
|                |                      |                     |                                            | Serranidae                                       | 3                                            | 2.5                  | 2.5                  |
|                |                      |                     |                                            | Sparidae                                         | 3                                            | 3.5                  | 3.5                  |
|                |                      |                     |                                            | Stromateidae                                     | 5                                            | 2.8                  | 3.3                  |
|                |                      |                     |                                            | Stromateidae - Peprilus burti                    | 13                                           | 1.8                  | 3.4                  |
|                |                      |                     |                                            | Synodontidae                                     | 3                                            | 2.9                  | 2.9                  |
|                |                      |                     |                                            | Trichiuridae - <u>Diplospinous multistriatus</u> | 8                                            | 3.5                  | 5.2                  |
|                |                      |                     |                                            | Triglidae - <u>Prionotus</u> sp.                 | 8                                            | 4.0                  | 5.0                  |
|                |                      |                     |                                            | Unknown                                          | 64                                           | 1.3                  | 5.5                  |
| 2-01           | II <b>-</b> 7        | 505                 | 949                                        | Argentinidae                                     | 2                                            | 6.4                  | 6.4                  |
|                |                      |                     |                                            | Bathylagidae - Bathylagus sp.                    | 14                                           | 5.0                  | 7.2                  |
|                |                      |                     |                                            | Bothidae                                         | 6                                            | 5.5                  | 6.2                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.                | 15                                           | 3.0                  | 4.5                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus         | 23                                           | 1.9                  | 13.0                 |
|                |                      |                     |                                            | Carangidae - Trachurus lathami                   | 23                                           | 3.2                  | 8.8                  |
|                |                      |                     |                                            | Chauliodontidae - Chauliodus sp.                 | 2                                            | 12.0                 | 12.0                 |
|                |                      |                     |                                            | Chiasmodontidae                                  | 2                                            | 5.2                  | 5.2                  |
|                |                      |                     |                                            | Congridae                                        | 2                                            | 20.0                 | 20.0                 |
|                |                      |                     |                                            | Gadidae - <u>Urophycis</u> sp.                   | 2                                            | 2.6                  | 2.6                  |
|                |                      |                     |                                            | Gobiidae                                         | 38                                           | 3.2                  | 11.0                 |
|                |                      |                     |                                            | Gonostomatidae                                   | 47                                           | 3.2                  | 20.0                 |
|                |                      |                     |                                            | Gonostomatidae - Gonostomus atlanticum           | 4                                            | 5.5                  | 11.0                 |
|                |                      |                     |                                            | Gonostomatidae - Maurolicus sp.                  | 6                                            | 7.1                  | 15.0                 |
|                |                      |                     |                                            | Mugilidae - <u>Mugil</u> sp.<br>Myctophidae      | 13<br>23                                     | 2.7<br>3.5           | 4.0<br>6.0           |
|                |                      |                     |                                            | Myctophidae - Benthosema suborbitale             | 23<br>32                                     | 2.8                  | 7.1                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                        | 15                                           | 3.3                  | 6.1                  |

Appendix table 1. (Continued)

| •      |               | Mesh       | Number               |                                           | Number               | Min. | Max. |
|--------|---------------|------------|----------------------|-------------------------------------------|----------------------|------|------|
|        | Transect-     | size       | eggs per             |                                           | larvae per           | size | size |
| (1976) | station       | <u>(μ)</u> | 1,000 m <sup>3</sup> | Larvae                                    | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 2-01   | II-7          | 505        |                      | Myctophidae - Diogenichthys atlanticus    | 2                    | 5.9  | 5.9  |
| 2-01   | TT1           | 707        | •                    | Myctophidae - Hygophum sp.                | 21                   | 3.0  | 7.8  |
|        |               |            |                      | Myctophidae - Hygophum reinhardti         | 4                    | 6.0  | 9.2  |
|        |               |            |                      | Myctophidae - Lampanyctus sp.             | 10                   | 3.0  | 5.0  |
|        |               |            |                      | Myctophidae - Myctophum obtusirostre      | 2                    | 4.6  | 4.6  |
|        |               |            |                      | Ophichthidae                              | 2                    | 75.0 | 75.0 |
|        |               |            |                      | Scaridae                                  | 2                    | 8.8  | 8.8  |
|        |               |            |                      | Scopelarchidae                            | 2                    | 10.0 | 10.0 |
|        |               |            |                      | Scopelosauridae - Scopelosaurus sp.       | 4                    | 11.0 | 19.0 |
|        |               |            |                      | Serranidae                                | 14                   | 3.5  | 4.5  |
|        |               |            |                      | Stromateidae - Peprilus burti             | 10                   | 2.6  | 3.4  |
|        |               |            |                      | Taeniophoridae - Taeniophorus sp.         | 2                    | 14.0 | 14.0 |
|        |               |            |                      | Trichiuridae - Diplospinous multistriatus | 2                    | 5.7  | 5.7  |
|        |               |            |                      | Triglidae - Prionotus sp.                 | 2                    | 6.0  | 6.0  |
|        |               |            |                      | Unknown                                   | 36                   | 1.6  | 5.4  |
| 2-01   | II <b>-</b> 7 | 333        | 1,013                | Antennariidae                             | 2                    | 4.3  | 4.3  |
|        | •             | 000        | _,5                  | Bathylagidae - Bathylagus sp.             | 4                    | 3.0  | 10.0 |
|        |               |            |                      | Bothidae                                  | 11                   | 5.6  | 6.5  |
|        |               |            |                      | Branchiostegidae - Caulolatilus sp.       | 14                   | 1.8  | 2.0  |
|        |               |            |                      | Bregmacerotidae - Bregmaceros sp.         | 15                   | 2,2  | 5.0  |
|        |               |            |                      | Bregmacerotidae - Bregmaceros atlanticus  | 73                   | 1.7  | 9.1  |
|        |               |            |                      | Carangidae - Trachurus lathami            | 32                   | 3.0  | 8.2  |
|        |               |            |                      | Chauliodontidae - Chauliodus sp.          | 6                    | 11.0 | 24.0 |
|        |               |            |                      | Congridae                                 | 4                    | 37.0 | 39.0 |
|        |               |            |                      | Gadidae - Urophycis sp.                   | 2                    | 2.6  | 2.6  |
|        |               |            |                      | Gobiidae                                  | 47                   | 3.5  | 15.0 |
|        |               |            |                      | Gonostomatidae - Cyclothone sp.           | 2                    | 6.0  | 6.0  |
|        |               |            |                      | Gonostomatidae - Gonostomus atlanticum    | 9                    | 4.4  | 11.0 |
|        |               |            |                      | Gonostomatidae - Maurolicus sp.           | 11                   | 6.2  | 7.3  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Iarvae                                    | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 2-01           | II <b>-</b> 7        | 333                 |                                            | Gonostomatidae - Vinciguerria sp.         | 36                                           | 4.1                  | 13.0                 |
|                | •                    |                     |                                            | Lutjanidae                                | 2                                            | 4.4                  | 4.4                  |
|                |                      |                     |                                            | Mugilidae - Mugil sp.                     | 6                                            | 2.2                  | 4.3                  |
|                |                      |                     |                                            | Mugilidae - Mugil cephalus                | 2                                            | 26.0                 | 26.0                 |
|                |                      |                     |                                            | Myctophidae                               | 15                                           | 2.6                  | 4.5                  |
|                |                      |                     |                                            | Myctophidae - Benthosema suborbitale      | 51                                           | 2.5                  | 5.9                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis   | 6                                            | 3.6                  | 5.4                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi     | 2                                            | 5.9                  | 5.9                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                 | 9                                            | 3.9                  | 6.5                  |
|                |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus    | 13                                           | 3.0                  | 5.8                  |
|                |                      |                     |                                            | Myctophidae - Hygophum sp.                | 11                                           | 4.6                  | 10.0                 |
|                |                      |                     |                                            | Myctophidae - Lampanyctus sp.             | 6                                            | 3.0                  | 4.1                  |
|                |                      |                     |                                            | Myctophidae - Myctophum sp.               | 9                                            | 4.1                  | 8.5                  |
|                |                      |                     |                                            | Myctophidae - Myctophum obtusirostre      | 9                                            | 3.6                  | 4.6                  |
|                |                      |                     |                                            | Myctophidae - Notolychnus valdiviae       | 13                                           | 3.3                  | 6.7                  |
|                |                      |                     |                                            | Ophichthidae                              | 9                                            | 30.0                 | 79.0                 |
|                |                      |                     |                                            | Ophidiidae                                | 2                                            | 5.2                  | 5.2                  |
|                |                      |                     |                                            | Paralepididae                             | 9                                            | 3.2                  | 40.0                 |
|                |                      |                     |                                            | Scaridae                                  | 2                                            | 8.3                  | 8.3                  |
|                |                      |                     |                                            | Serranidae                                | 2                                            | 2.3                  | 2.3                  |
|                |                      |                     |                                            | Sparidae                                  | 2                                            | 3.2                  | 3.2                  |
|                |                      |                     |                                            | Stromateidae                              | 2                                            | 2.5                  | 2.5                  |
|                |                      |                     |                                            | Stromateidae - Peprilus burti             | 6                                            | 2.5                  | 2.8                  |
|                |                      |                     |                                            | Trichiuridae - Diplospinous multistriatus | 14                                           | 2.4                  | 3.1                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                 | 2                                            | 1.5                  | 2.7                  |
|                |                      |                     |                                            | Unknown                                   | 49                                           | 2.7                  | 9.6                  |
| 1-31           | III-l                | 505                 | 403                                        | Carangidae                                | 29                                           | 3.0                  | 3.4                  |
|                |                      |                     |                                            | Clupeidae - Brevoortia patronus           | 10                                           | 12.0                 | 12.0                 |
|                |                      |                     |                                            | Clupeidae - Etrumeus teres                | 10                                           | 12.0                 | 12.0                 |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Number<br>larvae per<br>1,000 m <sup>3</sup>                                     | Min.<br>size<br>(mm)                                                             | Max.<br>size<br>(mm)                            |
|----------------|----------------------|---------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------|
| 1-31           | III-1                | 505                 |                                            | Gobiidae<br>Sciaenidae - <u>Leiostomus xanthurus</u><br>Serranidae - <u>Centropristis</u> sp.                                                                                                                                                                                                                                                                                                                                                          | 10<br>10<br>10                                                                   | 6.8<br>9.0<br>4.6                                                                | 6.8<br>9.0<br>4.6                               |
| 1-31           | III-1                | 333                 | 262                                        | Bothidae Clupeidae Clupeidae - Etrumeus teres Engraulidae Serranidae Sparidae Stromateidae - Peprilus burti                                                                                                                                                                                                                                                                                                                                            | 9<br>18<br>18<br>18<br>9<br>9                                                    | 7.5<br>8.1<br>10.0<br>4.9<br>3.1<br>10.0<br>2.5                                  | 7.5<br>8.1<br>12.0<br>5.5<br>3.2<br>10.0<br>2.5 |
| 2-01           | III-2                | 505                 | 1,422                                      | Bothidae Branchiostegidae - Caulolatilus sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Gobiidae Gonostomatidae - Cyclothone sp. Kyphosidae - Kyphosus sp. Moridae Mugilidae - Mugil sp. Myctophidae - Diaphus sp. Myctophidae - Diogenichthys atlanticus Myctophidae - Hygophum sp. Myctophidae - Hygophum sp. Myctophidae - Lampanyctus sp. Myctophidae - Myctophum obtusirostre Serranidae - Centropristis sp. Unknown | 12<br>6<br>62<br>6<br>12<br>25<br>6<br>6<br>12<br>31<br>12<br>12<br>56<br>6<br>6 | 7.5<br>3.0<br>3.1<br>6.8<br>7.0<br>5.4<br>3.6<br>2.0<br>4.1<br>2.9<br>5.8<br>3.3 | 7.50386.546074.59985764.55764.57                |
| 2-01           | III-2                | 333                 | 1,504                                      | Bothidae                                                                                                                                                                                                                                                                                                                                                                                                                                               | 18                                                                               | 6.5                                                                              | 7.5                                             |

Appendix table 1. (Continued)

|        |           | Mesh | Number               |                                          | Number               | Min. | Max. |
|--------|-----------|------|----------------------|------------------------------------------|----------------------|------|------|
| Date   | Transect- | size | eggs per             |                                          | larvae per           | size | size |
| (1976) | station   | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 2-01   | III-2     | 333  |                      | Bregmacerotidae - Bregmaceros sp.        | 6                    | 5.0  | 5.0  |
|        |           |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 30                   | 4.3  | 9.4  |
|        |           |      |                      | Gadidae - Urophycis sp.                  | 6                    | 8.0  | 8.0  |
|        |           |      |                      | Gempylidae                               | 6                    | 7.8  | 7.8  |
| •      |           |      |                      | Gobiidae                                 | 18                   | 7.5  | 7.8  |
|        |           |      |                      | Gonostomatidae                           | 12                   | 4.6  | 5.0  |
|        |           |      |                      | Moringuidae - Neoconger mucronatus       | 6                    | 38.0 | 38.0 |
|        |           |      |                      | Mugilidae - Mugil sp.                    | 6                    | 3.2  | 3.2  |
|        |           |      |                      | Myctophidae                              | 24                   | 3.3  | 3.8  |
|        |           |      |                      | Myctophidae - Ceratoscopelus maderensis  | 6                    | 5.2  | 5.2  |
|        |           |      |                      | Myctophidae - Diaphus sp.                | 61                   | 3.2  | 5.0  |
|        |           |      |                      | Myctophidae - Hygophum sp.               | 6                    | 2.8  | 2.8  |
|        |           |      |                      | Myctophidae - Lampanyctus sp.            | 42                   | 3.0  | 6.8  |
|        |           |      |                      | Myctophidae - Myctophum obtusirostre     | 12                   | 4.2  | 4.4  |
|        |           |      |                      | Myctophidae - Notoscopelus sp.           | 12                   | 4.4  | 7.4  |
|        |           |      |                      | Stromateidae - Cubiceps pauciradiatus    | 6                    | 3.3  | 3.3  |
|        |           |      |                      | Unknown                                  | 18                   | 3.5  | 5.0  |
| 2-01   | III-3     | 505  | 1,083                | Bothidae                                 | 13                   | 6.5  | 7.5  |
|        | _         |      | , ,                  | Branchiostegidae - Caulolatilus sp.      | 18                   | 2.1  | 6.0  |
|        |           |      |                      | Bregmacerotidae - Bregmaceros sp.        | 5                    | 7.3  | 8.0  |
|        |           |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 16                   | 2.1  | 6.8  |
|        | :         |      |                      | Carangidae - Trachurus lathami           | 24                   | 3.3  | 15.0 |
|        |           |      |                      | Gadidae - Urophycis sp.                  | 5                    | 2.5  | 2.7  |
|        |           |      |                      | Gobiidae                                 | 24                   | 5.9  | 6.8  |
|        |           |      |                      | Gonostomatidae - Cyclothone sp.          | 13                   | 5.2  | 9.2  |
|        |           |      |                      | Moridae                                  | 3                    | 3.5  | 3.5  |
|        |           |      |                      | Mugilidae - Mugil sp.                    | 16                   | 2.5  | 3.3  |
|        |           |      |                      | Myctophidae                              | 8                    | 3.3  | 4.5  |
|        |           |      |                      | Myctophidae - Ceratoscopelus warmingi    | 3                    | 6.8  | 6.8  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                    | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm)                  |
|-------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------|----------------------------------|----------------------|---------------------------------------|
| (1)107      | Boadion              |                     | 1,000 II                                   |                                           |                                  |                      | · · · · · · · · · · · · · · · · · · · |
| 2-01.       | III-3                | 505                 |                                            | Myctophidae - <u>Diaphus</u> sp.          | 40 .                             | 2.5                  | 4.5                                   |
|             |                      |                     |                                            | Myctophidae - Hygophum sp.                | 18                               | 4.5                  | 5.7                                   |
|             |                      |                     |                                            | Myctophidae - Hygophum reinhardti         | 3                                | 6.5                  | 6.5                                   |
|             |                      | _                   |                                            | Myctophidae - Lampanyctus sp.             | 34                               | 2.2                  | 4.6                                   |
|             |                      |                     |                                            | Myctophidae - Myctophum sp.               | 18                               | 3.0                  | <del>j</del> i • <del>ji</del>        |
|             |                      |                     |                                            | Nettastomidae                             | 3                                | 27.0                 | 27.0                                  |
|             |                      |                     |                                            | Paralepididae                             | 5                                | 3.5                  | 14.0                                  |
|             |                      |                     |                                            | Stromateidae                              | 3                                | 3.8                  | 3.8                                   |
|             |                      |                     |                                            | Stromateidae - Peprilus burti             | 3<br>3                           | 2.6                  | 2.6                                   |
|             |                      |                     |                                            | Synodontidae                              | 3                                | 3.6                  | 3.6                                   |
|             |                      |                     |                                            | Taeniophoridae - Taeniophorus sp.         | 3                                | 14.0                 | 14.0                                  |
|             |                      |                     |                                            | Trichiuridae - Diplospinous multistriatus | 8                                | 4.2                  | 4.4                                   |
|             |                      |                     |                                            | Triglidae - Prionotus sp.                 | 3                                | 3.8                  | 3.8                                   |
|             |                      |                     |                                            | Unknown                                   | 8                                | 2.6                  | 7.5                                   |
| 2-01        | III-3                | 333                 | 799                                        | Bothidae                                  | 14                               | 6.6                  | 6.6                                   |
|             |                      |                     |                                            | Bothidae - Bothus ocellatus               | 2                                | 11.0                 | 11.0                                  |
|             |                      |                     |                                            | Branchiostegidae - Caulolatilus sp.       | 21                               | 2.5                  | 6.0                                   |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.         | <u>)</u>                         | 3.0                  | 10.0                                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus  | 21                               | 1.8                  | 5.0                                   |
|             |                      |                     |                                            | Carangidae - Trachurus lathami            | 15                               | 3.2                  | 4.7                                   |
|             |                      |                     |                                            | Gadidae - Urophycis sp.                   | 2                                | 2.2                  | 2.2                                   |
|             |                      |                     |                                            | Gempylidae                                | 2                                | 4.8                  | 4.8                                   |
|             |                      |                     |                                            | Gobiidae                                  | 23                               | 6.2                  | 8.7                                   |
|             |                      |                     |                                            | Gonostomatidae - Cyclothone sp.           | 8                                | 4.0                  | 10.0                                  |
|             |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.         | 6                                | 5.0                  | 8.7                                   |
|             |                      |                     |                                            | Kyphosidae - Kyphosus sp.                 | 2                                | 3.2                  | 3.2                                   |
|             |                      |                     |                                            | Mugilidae - Mugil sp.                     | 6                                | 2.3                  | 3.0                                   |
|             |                      |                     |                                            | Myctophidae                               | 4                                | 3.5                  | 4.5                                   |
|             |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis   | 14                               | 4.0                  | 4.6                                   |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                 | Min.<br>size<br>(mm)                                                                     | Max.<br>size<br>(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-01           | III-3                | 333                 |                                            | Myctophidae - <u>Diaphus</u> sp.  Myctophidae - <u>Hygophum</u> sp.  Myctophidae - <u>Hygophum</u> reinhardti  Myctophidae - <u>Lampanyctus</u> sp.  Myctophidae - <u>Myctophum</u> sp.  Myctophidae - <u>Myctophum</u> sp.  Myctophidae - <u>Myctophum</u> obtusirostre  Myctophidae - <u>Notoscopelus</u> sp.  Nettastomidae  Ophidiidae  Paralepididae  Scopelosauridae - <u>Scopelosaurus</u> sp.  Serranidae - <u>Diplectrum</u> sp.  Stromateidae  Stromateidae - <u>Cubiceps</u> pauciradiatus  Stromateidae - <u>Peprilus</u> burti  Trichiuridae - <u>Diplospinous</u> multistriatus  Triglidae - <u>Prionotus</u> sp.  Unknown | 2<br>42<br>25<br>4<br>21<br>13<br>4<br>6<br>2<br>4<br>4<br>2<br>6<br>2<br>4<br>4<br>13<br>23 | 5.4<br>2.8<br>7.8<br>3.1<br>3.1<br>25.0<br>5.9<br>8.7<br>2.8<br>2.5<br>8.6<br>3.5<br>1.8 | 5.65<br>8.02<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50<br>6.50 |
| 1-30           | IV-1                 | 505                 | 557                                        | Bothidae  Bothidae - Paralichthys sp.  Bregmacerotidae - Bregmaceros atlanticus  Clupeidae - Brevoortia patronus  Clupeidae - Etrumeus teres  Engraulidae  Gobiidae  Stromateidae - Peprilus burti  Unknown                                                                                                                                                                                                                                                                                                                                                                                                                              | 29<br>14<br>14<br>29<br>14<br>43<br>14<br>14                                                 | 7.5<br>6.5<br>8.0<br>12.0<br>15.0<br>5.2<br>6.5<br>3.4<br>2.0                            | 10.0<br>6.5<br>8.0<br>16.0<br>15.0<br>6.3<br>6.5<br>3.4<br>7.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                            | Number<br>larvae per<br>1,000 m <sup>3</sup>                                    | Min.<br>size<br>(mm)                                        | Max.<br>size<br>(mm)                                                                         |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1-30           | IV-l                 | 333                 | 590                                        | Bothidae Clupeidae - Brevoortia patronus Engraulidae Gobiidae Myctophidae - Diaphus sp. Unknown                                                                                                                                                                                                                   | 27<br>13<br>27<br>13<br>13                                                      | 11.0<br>11.0<br>5.3<br>8.4<br>3.0<br>3.0                    | 12.0<br>11.0<br>5.6<br>8.4<br>3.0<br>3.0                                                     |
| 1-14           | IV-2                 | 505                 | 1,259                                      | Bothidae Bregmacerotidae - Bregmaceros atlanticus Carangidae Clupeidae - Etrumeus teres Cynoglossidae - Symphurus sp. Gobiidae Nettastomidae Sciaenidae Scombridae - Scomber sp. Serranidae Stromateidae - Peprilus burti Synodontidae - Saurida sp. Trichiuridae - Trichiurus lepturus Triglidae - Prionotus sp. | 11<br>388<br>162<br>108<br>22<br>388<br>22<br>118<br>11<br>11<br>65<br>43<br>65 | 9.4<br>2.7<br>4.2<br>2.5<br>4.0<br>5.0<br>5.0<br>5.0<br>5.0 | 9.4<br>18.0<br>3.7<br>13.5<br>8.4<br>12.0<br>11.0<br>5.7<br>4.5<br>4.0<br>5.6<br>7.5<br>18.0 |
| 1-14           | IV-2                 | 333                 | 985                                        | Bothidae Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Clupeidae Cynoglossidae - Symphurus sp. Gobiidae Gonostomatidae - Cyclothone sp. Nettastomidae                                                                                                                                   | 17<br>190<br>242<br>121<br>9<br>285<br>9                                        | 4.5<br>2.5<br>2.5<br>4.2<br>7.0<br>3.6<br>5.0<br>6.7        | 11.0<br>29.0<br>3.7<br>9.6<br>7.0<br>10.0<br>5.0<br>6.8                                      |

Appendix table 1. (Continued)

|        |           | Mesh | Number               |                                          | Number               | Min.         | Max.  |
|--------|-----------|------|----------------------|------------------------------------------|----------------------|--------------|-------|
| Date   | Transect- | size | eggs per             |                                          | larvae per           | size         | size  |
| (1976) | station   | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm)         | (mm)  |
| ,      |           |      |                      |                                          | •                    | 5 <b>7</b> 0 | F77 A |
| 1-14   | IV-2      | 333  |                      | Ophichthidae - Myrophis sp.              | 9                    | 57.0         | 57.0  |
|        |           |      |                      | Sciaenidae                               | 9                    | 3.2<br>2.4   | 3.2   |
|        |           |      |                      | Serranidae - Centropristis sp.           | 35<br>35             |              | 5.9   |
|        |           |      |                      | Stromateidae - Peprilus burti            | 35                   | 2.5          | 3.8   |
|        |           |      |                      | Synodontidae - Saurida sp.               | 86                   | 3.0          | 9.7   |
|        |           |      |                      | Triglidae - Prionotus sp.                | 17                   | 2.5          | 3.2   |
|        |           |      |                      | Unknown                                  | 233                  | 1.5          | 4.3   |
| 1-30   | IV-3      | 505  | 1,081                | Antennariidae                            | 3                    | 4.2          | 4.2   |
| 1 30   | 21.3      |      | 1,001                | Bothidae .                               | 11                   | 6.3          | 8.1   |
|        |           |      |                      | Bregmacerotidae - Bregmaceros sp.        | 3                    | 4,1          | 4.1   |
|        |           |      |                      | Bregmacerotidae - Bregmaceros atlanticus | <b>6</b> 8           | 3.0          | 7.7   |
|        |           |      |                      | Cynoglossidae - Symphurus sp.            | 3                    | 4.3          | 4.3   |
|        | ,         |      |                      | Gadidae - Urophycis sp.                  | 3                    | 2.0          | 2.0   |
|        |           |      |                      | Gobiidae                                 | 57                   | 5.0          | 13.0  |
|        |           |      |                      | Gonostomatidae - Cyclothone sp.          | 17                   | 2.5          | 5.5   |
|        |           |      |                      | Gonostomatidae - Maurolicus sp.          | 3                    | 6.8          | 6.8   |
|        |           |      |                      | Moridae                                  | 3                    | 5.3          | 5.3   |
|        |           |      |                      | Myctophidae - Benthosema suborbitale     | 42                   | 2.6          | 3.9   |
|        |           |      |                      | Myctophidae - Ceratoscopelus maderensis  | 3                    | 5.6          | 5.6   |
|        |           |      |                      | Myctophidae - Ceratoscopelus warmingi    | 6                    | 5.3          | 6.4   |
|        |           |      |                      | Myctophidae - Diaphus sp.                | 37                   | 2.9          | 4.5   |
|        |           |      |                      | Myctophidae - Diogenichthys atlanticus   | 3                    | 5.0          | 5.0   |
| -      |           |      |                      | Myctophidae - Lampanyctus sp.            | 14                   | 3.1          | 6.5   |
|        |           |      |                      | Myctophidae - Myctophum sp.              | 9                    | 3.1          | 3.9   |
|        |           |      |                      | Myctophidae - Notolychnus valdiviae      | 23                   | 2.8          | 4.5   |
|        |           |      |                      | Myctophidae - Notoscopelus sp.           | 3                    | 4.5          | 4.5   |
|        |           |      |                      | Scopelarchidae                           | 3                    | 6.3          | 6.3   |
|        |           |      |                      | Serranidae                               | 6                    | 3.2          | 3.9   |
|        |           |      |                      | Synodontidae                             | 3                    | 2.0          | 2.0   |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Number<br>larvae per<br>1,000 m3                                                         | Min.<br>size<br>(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Max.<br>size<br>(mm)                                                                                                                             |
|----------------|----------------------|---------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 1-30           | IV-3                 | 505                 |                                | Tetraodontidae<br>Trichiuridae - <u>Diplospinous</u> <u>multistriatus</u><br>Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3<br>3<br>40                                                                             | 4.4<br>7.7<br>2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.4<br>7.7<br>7.0                                                                                                                                |
| 1-30           | TV-3                 | 333                 | 829                            | Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus Clupeidae - Etrumeus teres Cynoglossidae - Symphurus sp. Gadidae - Urophycis sp. Gobiidae Gonostomatidae - Gonostomus atlanticum Gonostomatidae - Vinciguerria sp. Myctophidae Myctophidae - Benthosema suborbitale Myctophidae - Ceratoscopelus maderensis Myctophidae - Ceratoscopelus warmingi Myctophidae - Diaphus sp. Myctophidae - Hygophum sp. Myctophidae - Hygophum sp. Myctophidae - Myctophum sp. Myctophidae - Myctophum sp. Myctophidae - Myctophum sp. Myctophidae - Notolychnus valdiviae Scaridae Scopelosauridae Stromateidae - Cubiceps pauciradiatus Unknown | 17<br>3<br>69<br>3<br>40<br>3<br>26<br>3<br>52<br>12<br>3<br>6<br>3<br>6<br>3<br>3<br>14 | 6.5<br>3.5<br>20.0<br>3.6<br>6.1<br>6.8<br>8.0<br>7.7<br>9.0<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8.5<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>8<br>1.3<br>1.3<br>8<br>1.3<br>1.3<br>8<br>1.3<br>8<br>1.3<br>1.3<br>1.3<br>1.3<br>1.3<br>1.3<br>1.3<br>1.3<br>1.3<br>1.3 | 11.0<br>3.8<br>9.0<br>4.8<br>5.1<br>8.7<br>9.7<br>1.3<br>1.1<br>2.5<br>4.0<br>5.1<br>8.5<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0 |
| 3-18           | II-1                 | 505                 | 5,064                          | Branchiostegidae - <u>Caulolatilus</u> sp. Carangidae Clupeidae - <u>Brevoortia patronus</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 14<br>14<br>14                                                                           | 2.0<br>3.0<br>14.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.0<br>3.0<br>14.0                                                                                                                               |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                | Number<br>larvae per<br>1,000 m3                                      | Min.<br>size<br>(mm)                                                                     | Max.<br>size<br>(mm)                                                                      |
|----------------|----------------------|---------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 3-18           | II-1                 | 505                 |                                | Engraulidae Ophidiidae - Rissola marginata Pomadasyidae Sciaenidae Sciaenidae - Cynoscion sp. Serranidae - Centropristis sp. Unknown                                                                                                                                                                                                                                                                                  | 384<br>14<br>43<br>57<br>43<br>14<br>28                               | 2.9<br>6.6<br>2.5<br>2.4<br>2.9<br>4.6<br>1.7                                            | 6.5<br>6.6<br>5.0<br>3.3<br>3.5<br>4.6<br>3.9                                             |
| 3-18           | II-1                 | 333                 | 3,106                          | Bothidae Clupeidae Clupeidae - Brevoortia patronus Pomadasyidae Sciaenidae - Cynoscion sp. Sciaenidae - Menticirrhus sp. Triglidae - Prionotus sp. Unknown                                                                                                                                                                                                                                                            | 9<br>529<br>9<br>26<br>68<br>9<br>9                                   | 3.0<br>2.5<br>11.0<br>1.7<br>2.3<br>2.1<br>2.3<br>2.3                                    | 3.0<br>6.6<br>11.0<br>6.4<br>3.7<br>2.1<br>2.3<br>3.6                                     |
| 3-19           | II-2                 | 505                 | 11,336                         | Bothidae Branchiostegidae - Caulolatilus sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Clupeidae Clupeidae - Brevoortia sp. Clupeidae - Etrumeus teres Cynoglossidae - Symphurus sp. Engraulidae - Engraulis eurystole Gobiidae Myctophidae - Ceratoscopelus sp. Myctophidae - Ceratoscopelus maderensis Myctophidae - Diaphus sp. Myctophidae - Diaphus sp. Myctophidae - Hygophum sp. | 19<br>6<br>142<br>210<br>278<br>6<br>87<br>6<br>12<br>155<br>186<br>6 | 5.7<br>2.8<br>2.0<br>2.3<br>4.0<br>8.5<br>9.5<br>7.0<br>10.0<br>2.1<br>3.0<br>4.6<br>3.7 | 6.0<br>2.8<br>7.3<br>7.1<br>9.2<br>8.5<br>14.0<br>7.0<br>11.0<br>7.6<br>5.7<br>4.6<br>5.7 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 3-19           | II <b>-</b> 2        | 505                 |                                            | Myctophidae - Lampanyctus sp.            | 12                               | 3.0                  | 3.5                  |
|                |                      |                     |                                            | Scombridae - Scomber sp.                 | 6                                | 6.5                  | 6.5                  |
|                |                      |                     |                                            | Serranidae - Anthias sp.                 | 6                                | 4.2                  | 4.2                  |
|                |                      |                     |                                            | Serranidae - <u>Centropristis</u> sp.    | 25                               | 4.3                  | 4.9                  |
|                |                      |                     |                                            | Sorranidae - <u>Diplectrum</u> sp.       | 62                               | 2.9                  | 4.5                  |
|                | ·                    |                     |                                            | Stromateidae                             | 6                                | 4.6                  | 4.6                  |
|                | •                    |                     |                                            | Stromateidae - Peprilus burti            | 6                                | 4.3                  | 4.3                  |
|                |                      |                     |                                            | Synodontidae - Saurida sp.               | 50<br>50                         | 3.5                  | 5.7                  |
|                |                      |                     |                                            | Synodontidae - Synodus foetens           | 56                               | 3.6                  | 6.5                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                | 43                               | 2.4                  | 5.3                  |
|                |                      |                     |                                            | Unknown                                  | 99                               | 2.2                  | 6.0                  |
| 3-19           | II-2                 | 333                 | 10,839                                     | Bothidae                                 | 30                               | 5.0                  | 6.1                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus              | 6                                | 2.9                  | 2.9                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 173                              | 1.8                  | 5.8                  |
|                |                      |                     |                                            | Carangidae - Trachurus lathami           | 113                              | 2.6                  | 5.6                  |
|                |                      |                     |                                            | Clupeidae                                | 321                              | 3.9                  | 7.5                  |
|                |                      |                     |                                            | Clupeidae - Etrumeus teres               | 89                               | 7.2                  | 11.0                 |
|                |                      |                     |                                            | Gobiidae                                 | 101                              | 2.3                  | 7.4                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.          | 6                                | 4.8                  | 4.8                  |
|                |                      |                     |                                            | Gonostomatidae - <u>Vinciguerria</u> sp. | 6                                | 11.0                 | 11.0                 |
|                |                      |                     |                                            | Mugilidae - <u>Mugil</u> sp.             | 18                               | 3.0                  | 5.4                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis  | 30                               | 4.3                  | 8.0                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi    | 143                              | 2.5                  | 6.4                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 42                               | 3.0                  | 5.7                  |
|                |                      |                     |                                            | Myctophidae - Hygophum reinhardti        | 6                                | 4.7                  | 4.7                  |
|                |                      |                     |                                            | Paralepididae                            | 6                                | 7.5                  | 7.5                  |
|                |                      |                     |                                            | Sciaenidae - Cynoscion sp.               | 18                               | 2.3                  | 2.4                  |
|                |                      |                     |                                            | Scombridae - Scomber sp.                 | 6                                | 7.5                  | 7.5                  |
|                |                      |                     |                                            | Serranidae                               | 77                               | 2.3                  | 4.9                  |
|                |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.       | 18                               | 5.3                  | 5.3                  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                  | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|---------------------------------------------------------|----------------------------------|----------------------|----------------------|
| 3-19           | II <b>-</b> 2        | 333                 |                                | Stromateidae - Cubiceps pauciradiatus                   | - 6                              | 2.6                  | 2.6                  |
|                |                      |                     |                                | Stromateidae - Peprilus burti                           | . 6                              | 3.7                  | 3.7                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.                              | 48                               | 2.4                  | 4.8                  |
|                |                      |                     |                                | Synodontidae - Synodus foetens                          | 77                               | 3.4                  | 9.8                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                               | 30                               | 2.3                  | 4.7                  |
|                | •                    |                     |                                | Unknown                                                 | 107                              | 1.5                  | 7.7                  |
| 3-19           | II <b>-</b> 3        | 505                 | 1,016                          | Bothidae                                                | 8                                | 4.0                  | 4.3                  |
|                |                      |                     | •                              | Branchiostegidae - Caulolatilus sp.                     | 11                               | 3.0                  | 3.3                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.                       | 8                                | 2.9                  | 4.9                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus                | 437                              | 1.8                  | 8.4                  |
|                |                      |                     |                                | Carangidae - Trachurus lathami                          | 8                                | 4.1                  | 5.1                  |
|                |                      |                     |                                | Clupeidae                                               | 375                              | 3.2                  | 9.1                  |
|                |                      |                     |                                | Gobiidae                                                | 64                               | 2.5                  | 8.8                  |
|                |                      |                     |                                | Gonostomatidae - <u>Maurolicus</u> sp.                  | 94                               | 3.4                  | 6.5                  |
|                |                      |                     |                                | Gonostomatidae - Vinciguerria sp.                       | 5                                | 6.0                  | 10.0                 |
|                |                      |                     |                                | Mugilidae - <u>Mugil</u> sp.                            | 5                                | 2.6                  | 4.2                  |
|                |                      |                     |                                | Mullidae                                                | 3                                | 3.3                  | 3.3                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.                               | 174                              | 2.9                  | 5.0                  |
|                |                      |                     |                                | Myctophidae - Diogenichthys atlanticus                  | 3                                | 4.5                  | 4.5                  |
|                |                      |                     |                                | Myctophidae - Hygophum sp.                              | 24                               | 3.7                  | 5.2                  |
|                |                      |                     |                                | Myctophidae - Lampanyctus sp.                           | 5                                | 3.6                  | 4.0                  |
|                |                      |                     |                                | Myctophidae - Myctophum sp.                             | 3                                | 4.8                  | 4.8                  |
|                |                      |                     |                                | Myctophidae - Notoscopelus sp.                          | 3                                | 4.9                  | 4.9                  |
|                |                      |                     |                                | Nettastomidae                                           | 21                               | 7.0                  | 33.0                 |
|                |                      |                     |                                | Paralepididae                                           | 8                                | 6.2                  | 7.6                  |
|                |                      |                     |                                | Serranidae                                              | 3                                | 3.8                  | 3.8                  |
|                |                      |                     |                                | Serranidae - <u>Diplectrum</u> sp.                      | 3                                | 5.5                  | 5.5                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.                              | 30                               | 2.9                  | 6.3                  |
|                |                      |                     | •                              | Synodontidae - Synodus foetens                          | 3                                | 5.3                  | 5.3                  |
|                |                      |                     |                                | Trichiuridae - <u>Diplospinous</u> <u>multistriatus</u> | 5                                | 4.3                  | 6.0                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Number<br>larvae per<br>1,000 m3                                                                     | Min.<br>size<br>(mm)                                  | Max.<br>size<br>(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|----------------------|---------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-19        | II-3                 | 505                 |                                | Triglidae - <u>Prionotus</u> sp.<br>Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 16<br>147                                                                                            | 3.0<br>2.3                                            | 6.6<br>6.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3-19        | II-3                 |                     | 1,037                          | Bothidae Branchiostegidae - Caulolatilus sp. Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Clupeidae Clupeidae - Brevoortia patronus Clupeidae - Etrumeus teres Dysommidae Gadidae Gobiidae Gonostomatidae - Cyclothone sp. Gonostomatidae - Maurolicus sp. Gonostomatidae - Vinciguerria sp. Mugilidae - Mugil sp. Myctophidae Myctophidae - Benthosema suborbitale Myctophidae - Diaphus sp. Myctophidae - Diogenichthys atlanticus Myctophidae - Hygophum sp. Myctophidae - Hygophum reinhardti Myctophidae - Myctophum sp. Myctophidae - Notoscopelus sp. Nettastomidae | 3<br>10<br>21<br>759<br>16<br>504<br>3<br>21<br>5<br>3<br>101<br>3<br>94<br>3<br>78<br>3<br>179<br>3 | 4.0851.5069532000746353220<br>11.68832638323244.53220 | 4.3.6.5.9.5.0.0.8.5.6.2.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.5.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.2.4.0.3.6.5.2.0.0.0.2.4.0.3.0.0.2.4.0.3.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0 |
|             |                      |                     |                                | Ophidiidae<br>Paralepididae<br>Serranidae<br>Synodontidae - <u>Saurida</u> sp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8<br>16<br>10<br>18                                                                                  | 5.0<br>5.0<br>3.6<br>2.8                              | 7.3<br>8.5<br>4.7<br>4.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                        | Number<br>larvae per<br>1,000 m3                      | Min.<br>size<br>(mm)                                                | Max.<br>size<br>(mm)                                                       |
|----------------|----------------------|---------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------|
| 3-19           | II <b>-</b> 3        | 333                 |                                | Synodontidae - <u>Synodus foetens</u><br>Triglidae - <u>Prionotus</u> sp.<br>Unknown                                                                                                                                          | 8<br>16<br>216                                        | 3.8<br>2.2<br>1.9                                                   | 5.0<br>5.5<br>3.6                                                          |
| 3-18           | II-4                 | 505                 | 2,770                          | Clupeidae Clupeidae - Etrumeus teres Cynoglossidae - Symphurus sp. Engraulidae Ophidiidae - Rissola marginata Sciaenidae Sciaenidae - Cynoscion sp. Sparidae Synodontidae - Synodus foetens Triglidae - Prionotus sp. Unknown | 57<br>8<br>8<br>163<br>16<br>8<br>49<br>41<br>8<br>73 | 5.0<br>14.0<br>3.7<br>3.6<br>4.0<br>2.4<br>2.5<br>3.9<br>3.5<br>1.6 | 7.0<br>14.0<br>3.7<br>7.0<br>5.0<br>2.2<br>3.4<br>4.0<br>3.9<br>5.3<br>2.1 |
| 3-18           | II-4                 | 333                 | 707                            | Carangidae Clupeidae Engraulidae Ophidiidae Sciaenidae - Menticirrhus sp. Stromateidae - Peprilus burti Triglidae - Prionotus sp. Unknown                                                                                     | 16<br>16<br>161<br>16<br>8<br>8<br>16                 | 2.3<br>6.0<br>3.5<br>4.2<br>4.0<br>3.0<br>3.8<br>1.7                | 2.3<br>9.2<br>6.2<br>5.2<br>4.0<br>3.0<br>6.2<br>2.6                       |
| 3–19           | II-5                 | 505                 | 2,349                          | Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Clupeidae Gobiidae Gonostomatidae - Maurolicus sp.                                                                  | 5<br>253<br>42<br>304<br>134<br>65                    | 2.5<br>2.2<br>4.0<br>3.7<br>2.2<br>3.8                              | 2.5<br>6.8<br>6.2<br>11.0<br>6.8<br>5.2                                    |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                  | Number<br>larvae per<br>1,000 m3                               | Min.<br>size<br>(mm)                                                             | Max.<br>size<br>(mm)                                                |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 3-19           | II-5                 | 505                 |                                            | Mugilidae - Mugil sp.  Myctophidae - Diaphus sp.  Myctophidae - Hygophum sp.  Myctophidae - Hygophum reinhardti  Myctophidae - Lampanyctus sp.  Myctophidae - Myctophum sp.  Nettastomidae  Ophidiidae  Paralepididae  Serranidae  Serranidae - Diplectrum sp.  Stromateidae  Synodontidae - Saurida sp.  Synodontidae - Synodus foetens  Trichiuridae - Diplospinous multistriatus  Triglidae - Prionotus sp.  Unknown | 37<br>92<br>51<br>59<br>55<br>9<br>23<br>55<br>44<br>59<br>184 | 2.5<br>3.0<br>3.0<br>3.2<br>7.5<br>8.5<br>3.5<br>2.0<br>4.5<br>2.2<br>4.5<br>2.2 | 5.00042780135556662<br>6.200042780135556662                         |
| 3-19           | II-5                 | 333                 | 2,603                                      | Bothidae  Bregmacerotidae - Bregmaceros sp.  Bregmacerotidae - Bregmaceros atlanticus  Carangidae - Trachurus lathami  Clupeidae  Clupeidae - Etrumeus teres  Cynoglossidae - Symphurus sp.  Engraulidae - Engraulis eurystole  Gobiidae  Gonostomatidae - Cyclothone sp.  Gonostomatidae - Maurolicus sp.  Gonostomatidae - Vinciguerria sp.                                                                           | 31<br>9<br>237<br>27<br>215<br>36<br>5<br>170<br>9<br>49       | 2.6<br>2.9<br>1.9<br>4.7<br>9.0<br>2.3<br>8.8<br>6.8<br>4.6                      | 6.2<br>4.5<br>9.1<br>6.9<br>8.5<br>12.0<br>8.8<br>9.8<br>9.5<br>5.6 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                  | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------|----------------------------------|----------------------|----------------------|
| 3-19           | II <b>-</b> 5        | 333                 |                                            | Mugilidae - Mugil sp.                                                   | 36                               | 2.3                  | 4.2                  |
|                |                      |                     |                                            | Myctophidae                                                             | 255                              | 2.4                  | 5.0                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi                                   | 5                                | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                                               | 98                               | 2.3                  | 6.5                  |
|                |                      |                     |                                            | Myctophidae - Hygophum sp.                                              | 9                                | 3.4                  | 3.7                  |
|                |                      |                     |                                            | Myctophidae - Hygophum reinhardti                                       | 36                               | 3.4                  | 6.0                  |
|                |                      |                     |                                            | Myctophidae - Lampanyctus sp.                                           | 9                                | 2.5                  | 3.2                  |
|                |                      |                     |                                            | Myctophidae - Myctophum sp.                                             | 5                                | 3.9                  | 3.9                  |
|                | <i>:</i>             |                     |                                            | Nettastomidae                                                           | 9                                | 6.2                  | 6.3                  |
|                |                      |                     |                                            | Paralepididae                                                           | 18 .                             | 5.5                  | 6.9                  |
|                |                      |                     |                                            | Serranidae                                                              | 22                               | 2.2                  | 6.1                  |
|                |                      | -                   |                                            | Serranidae - <u>Diplectrum</u> sp.                                      | 13                               | 4.6                  | 5.6                  |
|                |                      |                     |                                            | Stromateidae - Peprilus burti                                           | 9                                | 3.7                  | 3.8                  |
|                |                      |                     |                                            | Synodontidae - Saurida sp.                                              | 58                               | 2.4                  | 6.5                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.                                              | 40                               | 4.0                  | 5.7                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                                               | 27                               | 3.0                  | 5.8                  |
|                |                      |                     |                                            | Unknown                                                                 | 103                              | 2.0                  | 4.2                  |
| 3-19           | II <b>-</b> 6        | 505                 | 1,219                                      | Bothidae                                                                | 11                               | 3.1                  | 4.0                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.                                       | 14                               | 2.4                  | 3.8                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus                                | 468                              | 2.2                  | 6.3                  |
|                |                      |                     |                                            | Carangidae - Trachurus lathami                                          | 18                               | 4.8                  | 7.4                  |
|                |                      |                     |                                            | Clupeidae                                                               | 106                              | 4.0                  | 16.0                 |
|                |                      |                     |                                            | Clupeidae - Sardinella anchovia                                         | 4                                | 17.0                 | 17.0                 |
|                |                      |                     |                                            | Engraulidae                                                             | 4                                | 9.3                  | 9.3                  |
|                |                      |                     |                                            | Gobiidae                                                                | 18                               | 3.0                  | 3.8                  |
|                |                      |                     |                                            | Gonostomatidae - <u>Maurolicus</u> sp. Mullidae                         | 96<br>4                          | 3.2                  | 5.6                  |
|                |                      |                     |                                            |                                                                         | 7                                | 3.5<br>5.8           | 3.5<br>6.3           |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus sp.  Myctophidae - Ceratoscopelus warmingi | 1,                               | 9.6                  | 9.6                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                                               | 92                               | 2.5                  | 5.5                  |
|                |                      |                     |                                            | mycrophicae - Diaphus sp.                                               | 94                               | 4.7                  | フ・フ                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Number<br>larvae per<br>1,000 m3                                                     | Min.<br>size<br>(mm)                                                                    | Max.<br>size<br>(mm)                                                       |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 3-19           | II <b>-</b> 6        | 505                 |                                            | Myctophidae - Hygophum sp.  Myctophidae - Lampanyctus sp.  Myctophidae - Myctophum sp.  Myctophidae - Notolychnus valdiviae  Nettastomidae  Paralepididae  Serranidae  Serranidae - Diplectrum sp.  Serranidae - Hemanthias vivanus  Synodontidae - Saurida sp.  Synodontidae - Synodus foetens  Triglidae - Prionotus sp.  Unknown                                                                                                                                           | 4<br>7<br>11<br>11<br>7<br>7<br>21<br>18<br>4<br>11<br>4<br>11<br>67                 | 4.2<br>3.5<br>4.5<br>6.2<br>4.7<br>5.3<br>5.3<br>5.3<br>5.3<br>5.3<br>5.3<br>5.3<br>5.3 | 4.58<br>4.88<br>4.37<br>7.05<br>6.54<br>6.54<br>6.0                        |
| 3-19           | II-6                 | 333                 | 1,117                                      | Bothidae  Branchiostegidae - Caulolatilus sp.  Bregmacerotidae - Bregmaceros sp.  Bregmacerotidae - Bregmaceros atlanticus  Carangidae - Trachurus lathami  Clupeidae  Clupeidae - Etrumeus teres  Gobiidae  Gonostomatidae - Maurolicus sp.  Mugilidae - Mugil sp.  Myctophidae  Myctophidae - Benthosema suborbitale  Myctophidae - Ceratoscopelus warmingi  Myctophidae - Diaphus sp.  Myctophidae - Hygophum sp.  Myctophidae - Hygophum sp.  Myctophidae - Myctophum sp. | 3<br>20<br>462<br>14<br>126<br>54<br>61<br>82<br>3<br>149<br>7<br>7<br>61<br>10<br>3 | 3.0<br>2.7<br>2.5<br>1.4<br>3.0<br>7.0<br>3.3<br>2.0<br>4.7<br>3.0<br>4.7<br>4.7        | 3.0<br>2.7<br>3.9<br>5.8<br>5.8<br>13.4<br>5.0<br>3.9<br>7.5<br>5.5<br>4.7 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Number<br>larvae per<br>1,000 m3                                                                                | Min.<br>size<br>(mm)                                                 | Max.<br>size<br>(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-19           | II <b>-</b> 6        | 333                 |                                            | Nettastomidae Ophidiidae Serranidae - Diplectrum sp. Sphyraenidae - Sphyraena borealis Synodontidae - Saurida sp. Synodontidae - Synodus sp. Triglidae - Prionotus sp. Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3<br>17<br>3<br>3<br>14<br>7<br>122                                                                             | 12.0<br>3.9<br>4.3<br>13.0<br>5.7<br>3.4<br>3.3<br>1.5               | 12.0<br>3.9<br>5.6<br>13.0<br>5.7<br>5.0<br>5.6<br>4.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3-19           | II-7                 | 505                 | 643                                        | Bothidae  Bregmacerotidae - Bregmaceros sp.  Bregmacerotidae - Bregmaceros atlanticus  Carangidae - Trachurus lathami  Clupeidae  Clupeidae - Etrumeus teres  Cynoglossidae - Symphurus sp.  Engraulidae - Engraulis eurystole  Gobiidae  Gonostomatidae - Maurolicus sp.  Gonostomatidae - Vinciguerria sp.  Mugilidae - Mugil sp.  Myctophidae  Myctophidae - Benthosema suborbitale  Myctophidae - Diaphus sp.  Myctophidae - Diogenichthys atlanticus  Myctophidae - Hygophum reinhardti  Myctophidae - Lampanyctus sp.  Myctophidae - Myctophum sp.  Myctophidae - Notolychnus valdiviae  Myctophidae - Notoscopelus sp. | 11<br>2<br>68<br>16<br>417<br>23<br>5<br>16<br>72<br>54<br>20<br>5<br>23<br>25<br>120<br>18<br>7<br>2<br>2<br>5 | 4.5.0<br>3.5.0<br>3.0.1<br>3.3.8<br>8.0.8<br>3.0.0<br>4.5.9<br>4.5.9 | 5.5,7,38,30,1,70,0,26,8,2,50,0,5,9,4,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,3,9,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,4,5,5,4,5,5,4,5,5,4,5,5,5,4,5,5,5,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5 |

Appendix table 1. (Continued)

|        |               | Mesh | Number               |                                          | Number     | Min. | Max. |
|--------|---------------|------|----------------------|------------------------------------------|------------|------|------|
| Date   | Transect-     | size | eggs per             | _                                        | larvae per | size | șize |
| (1976) | station       | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m3   | (mm) | (mm) |
| 3-19   | II <b>-</b> 7 | 505  |                      | Serranidae                               | 38         | 2.7  | 4.8  |
| 3 4)   | 1             |      |                      | Serranidae - Diplectrum sp.              | 9          | 5.0  | 5.6  |
|        |               |      |                      | Stromateidae                             | 2          | 4.0  | 4.0  |
|        |               |      |                      | Synodontidae                             | 5          | 2.7  | 3.2  |
|        |               |      |                      | Synodontidae - Saurida sp.               | 41         | 3.1  | 6.9  |
|        | •             |      |                      | Synodontidae - Synodus foetens           | 20         | 3.7  | 6.2  |
|        |               |      |                      | Triglidae - Prionotus sp.                | 23         | 3.0  | 3.9  |
|        |               |      |                      | Unknown                                  | 20         | 2.0  | 5.0  |
| 3-19   | II <b>-</b> 7 | 333  | 636                  | Bothidae                                 | 2          | 2.3  | 2.3  |
| 3 47   | ** 1          | 223  | 0,0                  | Branchiostegidae - Caulolatilus sp.      | 6          | 2.6  | 3.2  |
|        |               |      |                      | Bregmacerotidae - Bregmaceros sp.        | 21         | 2.1  | 3.0  |
|        |               |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 126        | 1.6  | 8.1  |
|        |               |      |                      | Carangidae - Trachurus lathami           | 10         | 4.0  | 4.7  |
|        |               |      |                      | Clupeidae                                | 313        | 3.4  | 7.0  |
|        |               |      |                      | Clupeidae - Etrumeus teres               | 6          | 8.1  | 9.4  |
|        |               |      |                      | Engraulidae                              | 2          | 3.9  | 3.9  |
|        |               |      |                      | Engraulidae - Engraulis eurystole        | 6          | 8.7  | 8.7  |
|        |               |      |                      | Gobiidae                                 | <b>7</b> 5 | 1.7  | 6.4  |
|        |               |      |                      | Gonostomatidae - Maurolicus sp.          | 41         | 2.6  | 6.4  |
|        |               | •    |                      | Gonostomatidae - Vinciguerria sp.        | 2          | 6.1  | 6.1  |
|        |               |      |                      | Microdesmidae - Microdesmus sp.          | 14         | 2.2  | 3.7  |
|        |               |      |                      | Mugilidae - Mugil sp.                    | 14         | 2.0  | 2.5  |
|        |               |      |                      | Myctophidae - Benthosema suborbitale     | 10         | 2.7  | 4.5  |
|        |               |      |                      | Myctophidae - Diaphus sp.                | 64         | 1.8  | 3.2  |
|        |               |      |                      | Myctophidae - Diogenichthys atlanticus   | 14         | 3.9  | 4.2  |
|        |               |      |                      | Myctophidae - Hygophum sp.               | 14         | 3.2  | 4.0  |
|        |               |      |                      | Myctophidae - Lampanyctus sp.            | 2          | 3.5  | 3.5  |
|        |               |      |                      | Myctophidae - Myctophum sp.              | 6          | 4.0  | 5.0  |
|        |               |      |                      | Myctophidae - Notoscopelus sp.           | 2          | 4.0  | 4.0  |
|        |               |      |                      | Nettastomidae                            | 4          | 8.1  | 11.0 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                 | Number<br>larvae per<br>1,000 m <sup>3</sup>               | Min.<br>size<br>(mm)                                               | Max.<br>size<br>(mm)                                 |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------|
| 3-19           | II-7                 | 333                 |                                | Ophidiidae Paralepididae Serranidae Serranidae - Diplectrum sp. Stromateidae Synodontidae - Saurida sp. Synodontidae - Synodus sp. Tetraodontidae Trichiuridae - Trichiurus lepturus Triglidae - Prionotus sp. Unknown | 2<br>23<br>4<br>6<br>19<br>27<br>2<br>4<br>17<br>274       | 4.8<br>4.7<br>2.4<br>4.0<br>2.3<br>2.2<br>1.9<br>6.0<br>2.1<br>1.5 | 4.8<br>4.7<br>3.6<br>5.2<br>7.5<br>4.9<br>6.2<br>6.5 |
| 4-02           | II-1                 | 505                 | 2,657                          | Bothidae Clupeidae Engraulidae Ophidiidae - Rissola marginata Pomadasyidae Sciaenidae - Cynoscion sp. Sciaenidae - Menticirrhus sp. Sciaenidae - Pogonias cromis Sparidae Triglidae - Prionotus sp. Unknown            | 28<br>28<br>182<br>14<br>42<br>112<br>42<br>56<br>14<br>14 | 3.5<br>4.9<br>3.8<br>2.6<br>2.9<br>4.7<br>5.3                      | 5.6<br>8.0<br>9.6<br>7.5<br>3.2<br>4.7<br>5.3        |
| 4-02           | II-1                 | 333                 | 3,384                          | Clupeidae - Brevoortia patronus Engraulidae Engraulidae - Engraulis eurystole Gobiidae Ophidiidae - Rissola marginata Sciaenidae - Cynoscion sp. Sciaenidae - Cynoscion arenarius                                      | 15<br>305<br>15<br>15<br>46<br>122<br>31                   | 12.0<br>3.5<br>9.0<br>2.2<br>4.8<br>2.6<br>7.2                     | 12.0<br>7.1<br>9.0<br>2.2<br>5.7<br>4.9<br>7.6       |

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Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Lervae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 4-02           | II-l                 | 333                 |                                | Sciaenidae - Menticirrhus sp.            | 76                               | 1.9                  | 2.5                  |
|                |                      |                     |                                | Sciaenidae - Pogonias cromis             | 92                               | 2.4                  | 3.6                  |
|                |                      |                     |                                | Synodontidae                             | 15                               | 2:9                  | 2.9                  |
|                |                      |                     |                                | Unknown                                  | 92                               | 2.1                  | 4.5                  |
| 4-02           | II-2                 | 505                 | 5,335                          | Bothidae                                 | 5                                | 2.5                  | 2.5                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 53                               | 1.6                  | 17.0                 |
|                |                      |                     |                                | Carangidae                               | 16                               | 2.6                  | 3.1                  |
|                |                      |                     |                                | Clupeidae                                | 1,009                            | 3.2                  | 7.2                  |
|                |                      |                     |                                | Clupeidae - Etrumeus teres               | 534                              | 7.3                  | 16.0                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 26                               | 2.8                  | 4.5                  |
|                | •                    |                     |                                | Engraulidae                              | 5                                | 7.2                  | 7.2                  |
|                |                      |                     |                                | Gobiidae                                 | 58                               | 2.1                  | 10.0                 |
|                |                      |                     |                                | Mugilidae - Mugil sp.                    | 5                                | 2.2                  | 2.2                  |
|                |                      |                     |                                | Myctophidae                              | 5                                | 2.5                  | 2.5                  |
|                |                      |                     |                                | Paralepididae                            | 5                                | 2.8                  | 2.8                  |
|                |                      |                     |                                | Sciaenidae - Cynoscion sp.               | 42                               | 1.6                  | 3.4                  |
|                |                      |                     |                                | Serranidae                               | 21                               | 2.5                  | 3.2                  |
|                |                      |                     |                                | Serranidae - Centropristis sp.           | 16                               | 3.9                  | 4.8                  |
|                |                      |                     |                                | Sparidae                                 | 5                                | 5.9                  | 5.9                  |
|                |                      |                     |                                | Synodontidae - Synodus foetens           | 53                               | 3.2                  | 7.8                  |
|                |                      |                     |                                | Tetraodontidae                           | 5                                | 2.6                  | 2.6                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                | 79                               | 3.0                  | 5.9                  |
|                |                      |                     |                                | Unknown                                  | 116                              | 1.6                  | 5.0                  |
| 4-02           | II-2                 | 333                 | 5,219                          | Bothidae                                 | 11                               | 1.5                  | 9.2                  |
|                |                      |                     | -                              | Bothidae - Bothus ocellatus              | 11                               | 2.4                  | 2.4                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 85                               | 1.5                  | 17.0                 |
|                |                      |                     |                                | Carangidae                               | 37                               | 2.1                  | 3.2                  |
|                |                      |                     | •                              | Clupeidae                                | 1,337                            | 3.0                  | 9.0                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 4-02        | II <b>-</b> 2        | 333                 | ·                                          | Clupeidae - Etrumeus teres               | 322                                          | 8.5                  | 20.0                 |
| 4-02        | 11-2                 | 333                 |                                            | Cynoglossidae - Symphurus sp.            | 74                                           | 1.6                  | 4.5                  |
|             |                      |                     |                                            | Gobiidae                                 | 444                                          | 1.8                  | 9.6                  |
|             |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 11                                           | 2.0                  | 2.0                  |
|             |                      |                     |                                            | Mugilidae - Mugil sp.                    | 5                                            | 2.0                  | 2.0                  |
|             |                      |                     |                                            | Ophidiidae - Rissola marginata           | 11                                           | 3.9                  | 4.3                  |
|             |                      |                     |                                            | Sciaenidae - Cynoscion sp.               | <b>9</b> 5                                   | 2.1                  | 3.1                  |
|             |                      |                     |                                            | Serranidae - Centropristis sp.           | 137                                          | 1.5                  | 6.3                  |
|             |                      |                     |                                            | Stromateidae - Peprilus burti            | 11                                           | 2.6                  | 3.0                  |
|             |                      | •                   |                                            | Synodontidae                             | 16                                           | 2.2                  | 3.0                  |
|             |                      |                     |                                            | Synodontidae - Saurida sp.               | 5                                            | 3.2                  | 3.2                  |
|             |                      |                     |                                            | Synodontidae - Synodus sp.               | 53                                           | 2.6                  | 6.8                  |
|             |                      |                     |                                            | Tetraodontidae                           | 11                                           | 1.6                  | 1.7                  |
|             |                      |                     |                                            | Triglidae - Prionotus sp.                | 69                                           | 2.4                  | 7.0                  |
|             |                      |                     |                                            | Unknown                                  | 159                                          | 1.6                  | 12.0                 |
| 4-03        | II <b>-</b> 3        | 505                 | 832                                        | Bothidae                                 | 9                                            | 4.1                  | 6.0                  |
| , 55        | 0                    | , . ,               | _                                          | Branchiostegidae - Caulolatilus sp.      | 3                                            | 2.6                  | 2.6                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 3                                            | 3.3                  | 3.3                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 81                                           | 1.7                  | 9.2                  |
|             |                      |                     |                                            | Carangidae - Trachurus lathami           | 66                                           | 3.3                  | 6.2                  |
|             |                      |                     |                                            | Clupeidae                                | 234                                          | 3.6                  | 12.0                 |
|             |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 33                                           | 2.1                  | 7.9                  |
|             |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 3                                            | 10.0                 | 10.0                 |
|             |                      |                     |                                            | Gobiidae                                 | 258                                          | 1.7                  | 6.7                  |
|             |                      |                     |                                            | Gonostomatidae - Maurolicus sp.          | 3                                            | 4.2                  | 4.2                  |
|             |                      |                     |                                            | Mugilidae - <u>Mugil</u> sp.             | 24                                           | 2.0                  | 3.9                  |
|             |                      |                     |                                            | Mullidae                                 | 12                                           | 2.7                  | 4.5                  |
|             |                      |                     |                                            | Myctophidae - <u>Diaphus</u> sp.         | 75                                           | 3.4                  | 6.8                  |
|             |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus   | 3 .                                          | 4.4                  | 4.4                  |
|             |                      |                     |                                            | Myctophidae - Hygophum sp.               | 3                                            | 6.2                  | 6.2                  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 4-03           | II3                  | 505                 |                                            | Myctophidae - Lampanyctus sp.            | 3                                            | 6.3                  | 6.3                  |
|                |                      |                     |                                            | Nettastomidae                            | 30                                           | 5.0                  | 7.0                  |
|                |                      |                     |                                            | Ophidiidae                               | 12                                           | 3.8                  | 6.3                  |
| •              |                      |                     |                                            | Paralepididae                            | 6                                            | 8.8                  | 12.0                 |
|                |                      |                     |                                            | Serranidae                               | 27                                           | 2.7                  | 4.2                  |
|                |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.       | 15                                           | 4.7                  | 5.5                  |
|                |                      |                     |                                            | Synodontidae                             | 27                                           | 2,3                  | 11.0                 |
|                |                      |                     |                                            | Synodontidae - <u>Saurida</u> sp.        | 45                                           | 2.1                  | 10.0                 |
|                |                      |                     |                                            | Synodontidae - Synodus sp.               | 27                                           | 2.8                  | 4.0                  |
|                |                      |                     |                                            | Tetraodontidae                           | 15                                           | 1.8                  | 2.2                  |
|                |                      |                     |                                            | Trichiuridae - Trichiurus lepturus       | 3                                            | 5.8                  | 5.8                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                | 15                                           | 3.4                  | 5.2                  |
|                |                      |                     |                                            | Unknown                                  | 216                                          | 1.6                  | 10.0                 |
| 4-03           | II-3                 | 333                 | 821                                        | Bothidae                                 | 9                                            | 4.5                  | 6.6                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus              | 9                                            | 2.4                  | 5.7                  |
|                |                      |                     |                                            | Branchiostegidae - Caulolatilus sp.      | 3                                            | 2.3                  | 2.3                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 144                                          | 1.6                  | 10.0                 |
|                |                      |                     |                                            | Carangidae - Trachurus lathami           | 41                                           | 3.5                  | 6.7                  |
|                |                      |                     |                                            | Clupeidae                                | 345                                          | 3.7                  | 13.0                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 41                                           | 2.4                  | 6.5                  |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 6                                            | 8.5                  | 11.0                 |
|                |                      |                     |                                            | Gobiidae                                 | 373                                          | 1.8                  | 4.6                  |
|                |                      |                     |                                            | Kyphosidae - Kyphosus sp.                | 3                                            | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 3                                            | 3.0                  | 3.0                  |
|                |                      |                     |                                            | Mugilidae - Mugil sp.                    | 25                                           | 2.2                  | 3.2                  |
| ,              |                      |                     |                                            | Myctophidae - Benthosema suborbitale     | 3                                            | 3.8                  | 3.8                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 110                                          | 3.2                  | 6.3                  |
|                |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus   | 3                                            | 4.5                  | 4.5                  |
|                |                      |                     | ·                                          | Myctophidae - Hygophum reinhardti        | 3                                            | 6.5                  | 6.5                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 4-03        | II-3                 | 333                 |                                            | Myctophidae - Notolychnus valdiviae      | 3                                | 3.7                  | 3.7                  |
|             |                      |                     |                                            | Nettastomidae                            | 56                               | 5.5                  | 9.2                  |
|             |                      |                     |                                            | Ophidiidae                               | 9                                | 4.5                  | 6.5                  |
| •           |                      |                     |                                            | Paralepididae                            | 6                                | 4.0                  | 9.7                  |
|             |                      |                     |                                            | Serranidae                               | 60                               | 1.5                  | 3.9                  |
|             |                      |                     |                                            | Serranidae - Centropristis sp.           | 6                                | 3.9                  | 4.9                  |
|             |                      |                     |                                            | Serranidae - Diplectrum sp.              | 22                               | 4.2                  | 5.5                  |
|             |                      |                     |                                            | Stromateidae                             | 3                                | 3.5                  | 3.5                  |
|             |                      |                     |                                            | Synodontidae                             | 88                               | 2.3                  | 5.0                  |
|             |                      |                     | •                                          | Synodontidae - Saurida sp.               | 147                              | 2.2                  | 4.1                  |
|             |                      |                     |                                            | Synodontidae - Synodus sp.               | 35                               | 3.1                  | 4.2                  |
|             |                      |                     |                                            | Tetraodontidae                           | 31                               | 1.6                  | 2.2                  |
|             |                      |                     |                                            | Triglidae - <u>Prionotus</u> sp.         | 50                               | 2.0                  | 4.8                  |
|             |                      |                     |                                            | Unknown                                  | 132                              | 1.5                  | 5.2                  |
| 4-02        | II-4                 | 505                 | 5,133                                      | Bothidae                                 | 10                               | 6.2                  | 6.2                  |
|             |                      |                     | ,,                                         | Bothidae - Bothus ocellatus              | 10                               | 3.1                  | 3.1                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 10                               | 8.2                  | 8.2                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 20                               | 4.8                  | 11.0                 |
|             |                      |                     |                                            | Carangidae                               | 128                              | 1.8                  | 2.6                  |
|             |                      |                     |                                            | Clupeidae                                | 305                              | 2.1                  | 9.1                  |
|             |                      |                     |                                            | Clupeidae - Etrumeus teres               | 10                               | 12.0                 | 12.0                 |
|             |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 30                               | 3.0                  | 4.2                  |
|             |                      |                     |                                            | Gobiidae                                 | 10                               | 2.2                  | 2.2                  |
|             |                      |                     |                                            | Mullidae                                 | 30                               | 2.9                  | 3.2                  |
|             |                      |                     |                                            | Soleidae - Gymnachirus sp.               | 10                               | 3.3                  | 3.3                  |
|             |                      |                     |                                            | Stromateidae - Peprilus burti            | 20                               | 2.4                  | 3.1                  |
|             |                      |                     |                                            | Tetraodontidae                           | 30                               | 1.5                  | 2.1                  |
|             |                      |                     |                                            | Triglidae - Prionotus sp.                | 39                               | 1.8                  | 5.8                  |
|             |                      |                     |                                            | Unknown                                  | 177                              | 1.9                  | 4.5                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 4-02           | II-4                 | 333                 | 5,719                                      | Bothidae - Syacium sp.                   | 21                               | 1.6                  | 2.2                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 21                               | 5.0                  | 6.7                  |
|                |                      |                     |                                            | Carangidae                               | 199                              | 2.2                  | 3.3                  |
| •              |                      |                     |                                            | Clupeidae                                | 682                              | 3.1                  | 6.9                  |
|                |                      |                     |                                            | Clupeidae - Brevoortia patronus          | 11                               | 13.0                 | 13.0                 |
|                |                      |                     |                                            | Clupeidae - Etrumeus teres               | 11                               | 12.0                 | 12.0                 |
|                |                      |                     | ••                                         | Cynoglossidae - Symphurus sp.            | 42                               | 2.0                  | 4.2                  |
|                |                      |                     |                                            | Engraulidae                              | 21                               | 6.0                  | 6.4                  |
| •              |                      |                     |                                            | Gobiidae                                 | 84                               | 2.3                  | 3.0                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 21                               | 2.3                  | 2.6                  |
|                |                      |                     |                                            | Mullidae                                 | 42                               | 3.3                  | 5.0                  |
|                |                      |                     |                                            | Sciaenidae - Cynoscion sp.               | 21                               | 2.2                  | 2.8                  |
| •              |                      |                     |                                            | Sciaenidae - Menticirrhus sp.            | 11                               | 2.4                  | 2.4                  |
|                |                      |                     |                                            | Serranidae                               | 199                              | 1.6                  | 3.0                  |
|                |                      |                     |                                            | Synodontidae                             | 21                               | 2.7                  | 2.5                  |
|                |                      |                     |                                            | Synodontidae - Synodus foetens           | 11                               | 9.0                  | 9.0                  |
|                |                      |                     |                                            | Tetraodontidae                           | 84                               | 1.5                  | 2.3                  |
|                |                      |                     |                                            | Tetraodontidae - Sphoeroides sp.         | 21                               | 3.9                  | 5.0                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                | 136                              | 1.8                  | 4.7                  |
|                |                      |                     |                                            | Unknown                                  | 504                              | 1.5                  | 5.9                  |
| 4-11           | II-5                 | 505                 | 1,237                                      | Bothidae                                 | 19                               | 3.6                  | 7.0                  |
| •              | /                    | ,-,                 | -,                                         | Branchiostegidae - Caulolatilus sp.      | 5                                | 3.2                  | 3.2                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 254                              | 4.2                  | 11.0                 |
|                |                      |                     |                                            | Carangidae                               | 110                              | 2.4                  | 4.8                  |
|                |                      |                     |                                            | Clupeidae                                | 312                              | 3.2                  | 7.0                  |
|                |                      |                     |                                            | Clupeidae - Etrumeus teres               | 106                              | 8.5                  | 17.0                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 58                               | 2.6                  | 12.0                 |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 34                               | 4.6                  | 14.0                 |
|                |                      |                     |                                            | Gobiidae                                 | 504                              | 2,2                  | 9.4                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 4-03        | II <b>-</b> 5        | 505                 |                                | Gonostomatidae - Cyclothone sp.          | 5                                | 5.1                  | 5.1                  |
|             | /                    |                     |                                | Gonostomatidae - Vinciguerria sp.        | ıó                               | 17.0                 | 17.0                 |
|             |                      |                     |                                | Mugilidae - Mugil sp.                    | 158                              | 2.2                  | 8.2                  |
|             |                      |                     |                                | Mullidae                                 | 110                              | 2.4                  | 4.4                  |
|             | . •                  |                     |                                | Myctophidae                              | 14                               | 3.1                  | 3.4                  |
|             |                      |                     |                                | Myctophidae - Ceratoscopelus warmingi    | 5                                | 8.7                  | 8.7                  |
|             |                      |                     |                                | Myctophidae - Diaphus sp.                | 336                              | 3.8                  | 5.8                  |
|             |                      |                     |                                | Myctophidae - Hygophum reinhardti        | 5                                | 10.0                 | 10.0                 |
|             |                      |                     |                                | Nettastomidae                            | 53                               | 5.4                  | 8.0                  |
|             |                      |                     |                                | Ophidiidae                               | 14                               | 5.1                  | 7.0                  |
|             |                      |                     |                                | Paralepididae                            | 10                               | 10.0                 | 11.0                 |
|             |                      |                     |                                | Scombridae - Scomber sp.                 | 10                               | 5.2                  | 8.4                  |
|             |                      |                     |                                | Scopelarchidae                           | 5                                | 6.5                  | 6.5                  |
|             |                      |                     |                                | Serranidae                               | 130                              | 2.2                  | 4.2                  |
|             |                      |                     |                                | Serranidae - Diplectrum sp.              | 14                               | 5.0                  | 7.5                  |
|             |                      |                     |                                | Sphyraenidae - Sphyraena sp.             | 5                                | 4.3                  | 4.3                  |
|             |                      |                     |                                | Synodontidae - Saurida sp.               | 633                              | 1.8                  | 12.0                 |
|             |                      |                     |                                | Syndontidae - Synodus sp.                | 110                              | 2.6                  | 5.8                  |
|             |                      |                     |                                | Tetraodontidae                           | 34                               | 1.8                  | 3.8                  |
|             |                      |                     |                                | Triglidae - Prionotus sp.                | 62                               | 2.1                  | 7.0                  |
|             |                      |                     |                                | Unknown                                  | 120                              | 2.2                  | 15.0                 |
| 4-03        | II-5                 | 333                 | 992                            | Bothidae                                 | 15                               | 3.0                  | 9.0                  |
| -•          |                      | 555                 |                                | Bothidae - Bothus ocellatus              | 5                                | 3.0                  | 3.0                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 136                              | 1.8                  | 11.0                 |
|             |                      |                     |                                | Carangidae - Trachurus lathami           | 66                               | 2.9                  | 5.5                  |
|             |                      |                     |                                | Clupeidae                                | 106                              | 4.8                  | 16.0                 |
|             |                      |                     |                                | Clupeidae - Etrumeus teres               | 30                               | 10.0                 | 18.0                 |
|             |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 30                               | 3.0                  | 10.0                 |
|             |                      |                     | •                              | Engraulidae                              | 30                               | 5.2                  | 7.7                  |
|             |                      |                     |                                | Engraulidae - Engraulis eurystole        | 15                               | 8.9                  | 11.0                 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 4-03           | II <b>-</b> 5        | 333                 |                                | Gobiidae                                 | 312                              | 1.8                  | 9.5                  |
|                |                      |                     |                                | Gonostomatidae - Cyclothone sp.          | 5                                | 5.0                  | 5.0                  |
|                |                      |                     |                                | Gonostomatidae - Vinciguerria sp.        | 5                                | 4.8                  | 4.8                  |
| •              |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 5                                | 2.3                  | 2.3                  |
|                |                      |                     |                                | Mugilidae - Mugil sp.                    | 10                               | 2.5                  | 2.7                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus warmingi    | 5                                | 6.7                  | 6.7                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.                | 201                              | 3.5                  | 5.7                  |
|                |                      |                     |                                | Nettastomidae                            | 10                               | 6.2                  | 6.5                  |
|                |                      |                     |                                | Ophidiidae                               | 10                               | 5.7                  | 6.5                  |
|                |                      |                     |                                | Serranidae                               | 96                               | 2.1                  | 4.5                  |
|                |                      |                     |                                | Serranidae - <u>Diplectrum</u> sp.       | 10                               | 7.0                  | 7.8                  |
|                |                      |                     |                                | Synodontidae                             | 81                               | 2.5                  | 7.4                  |
| . •            |                      |                     |                                | Synodontidae - Saurida sp.               | 196                              | 2.8                  | 11.0                 |
|                |                      |                     |                                | Synodontidae - Synodus foetens           | 71                               | 3.6                  | 7.0                  |
|                |                      |                     |                                | Tetraodontidae                           | 5                                | 2.1                  | 2.1                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                | 20                               | 2.8                  | 5.4                  |
|                |                      |                     |                                | Unknown                                  | 71                               | 2.0                  | 10.0                 |
| 4-03           | II <b>-</b> 6        | 505                 | 635                            | Bothidae                                 | 7                                | 2.7                  | 3.3                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 302                              | 2.8                  | 11.0                 |
|                |                      |                     |                                | Carangidae - Trachurus lathami           | 98                               | 3.2                  | _7.6                 |
|                |                      |                     |                                | Clupeidae                                | 414                              | 2.3                  | 11.0                 |
|                |                      |                     |                                | Clupeidae - Etrumeus teres               | 109                              | 8.2                  | 18.0                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 28                               | 2.1                  | 4.2                  |
|                |                      |                     |                                | Engraulidae - Engraulis eurystole        | 49                               | 8.2                  | 16.0                 |
|                |                      |                     |                                | Gobiidae                                 | 305                              | 2.1                  | 9.0                  |
|                |                      |                     |                                | Melamphaidae - Melamphais sp.            | 14                               | 5.1                  | 5.1                  |
|                |                      |                     | •                              | Mugilidae - Mugil sp.                    | 25                               | 1.7                  | 3.1                  |
|                |                      |                     |                                | Mullidae                                 | 4                                | 3.3                  | 3.3                  |
|                |                      |                     | •                              | Myctophidae                              | 4 .                              | 4.0                  | 4.0                  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                        | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                  | Min.<br>size<br>(mm)                                                                     | Max.<br>size<br>(mm)                                                                         |
|----------------|----------------------|---------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 4-03           | II <b>-</b> 6        | 505                 |                                | Myctophidae - Ceratoscopelus maderensis  Myctophidae - Diaphus sp.  Myctophidae - Hygophum sp.  Myctophidae - Hygophum reinhardti  Nettastomidae  Ophidiidae  Paralepididae  Serranidae - Centropristis sp.  Serranidae - Diplectrum sp.  Sphyraenidae - Sphyraena sp.  Synodontidae - Synodus foetens  Tetraodontidae  Triglidae - Prionotus sp.  Unknown                    | 14<br>11<br>218<br>11<br>4<br>7<br>4<br>112<br>4<br>112<br>4<br>109<br>175<br>18<br>49<br>130 | 6.8<br>2.6<br>8.2<br>5.0<br>3.5<br>9.1<br>2.6<br>4.2<br>11.0<br>2.6<br>2.6<br>2.2        | 6.0<br>7.1<br>6.7<br>8.6<br>5.2<br>4.2<br>6.0<br>16.4<br>2.2<br>8.0                          |
| 4-03           | II-6                 | 333                 | 770                            | Bothidae - Bothus ocellatus Branchiostegidae - Caulolatilus sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae - Trachurus lathami Clupeidae Clupeidae - Etrumeus teres Cynoglossidae - Symphurus sp. Engraulidae - Engraulis eurystole Gobiidae Gonostomatidae - Cyclothone sp. Gonostomatidae - Vinciguerria sp. Microdesmidae - Microdesmus sp. Mugilidae - Mugil sp. | 7<br>4<br>383<br>94<br>365<br>315<br>54<br>72<br>412<br>11<br>11<br>7                         | 3.2<br>2.5<br>2.0<br>2.7<br>3.7<br>7.1<br>2.0<br>11.0<br>2.2<br>7.8<br>8.0<br>2.3<br>2.1 | 3.7<br>2.5<br>15.0<br>8.2<br>8.0<br>19.0<br>6.8<br>17.0<br>9.7<br>12.0<br>15.0<br>3.0<br>3.1 |

| Date   | Transect-     | Mesh<br>size | Number<br>eggs per |                                          | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|---------------|--------------|--------------------|------------------------------------------|----------------------|--------------|--------------|
| (1976) | station       | (μ)          | 1,000 m3           | Larvae                                   | 1,000 m3             | (mm)         | (mm)         |
|        |               |              |                    |                                          |                      | <del></del>  |              |
| 4-03   | 11-6          | 333          |                    | Mullidae                                 | 4                    | 5.0          | 5.0          |
|        |               |              |                    | Myctophidae - Ceratoscopelus maderensis  | 18                   | 4.7          | 8.0          |
|        |               |              |                    | Myctophidae - Ceratoscopelus warmingi    | 22                   | 5.3          | 12.0         |
|        |               |              |                    | Myctophidae - <u>Diaphus</u> sp.         | 315                  | 3.2          | 7.3          |
|        |               |              |                    | Myctophidae - Hygophum sp.               | 18                   | 5.5          | 11.0         |
|        |               |              |                    | Myctophidae - Lampanyctus sp.            | 7                    | 3.9          | 4.7          |
|        |               |              |                    | Ophidiidae                               | 7                    | 4.1          | 4.7          |
|        |               |              |                    | Paralepididae                            | 4                    | 14.0         | 14.0         |
|        |               |              |                    | Serranidae                               | 156                  | 1.8          | 4.5          |
|        |               |              |                    | Serranidae - <u>Diplectrum</u> sp.       | ij                   | 4.8          | 5.0          |
|        |               |              |                    | Sphyraenidae - Sphyraena borealis        | <u>1</u> 4           | 11.0         | 11.0         |
|        |               |              |                    | Stromateidae                             | 7                    | 3.6          | 4.1          |
|        |               | •            |                    | Synodontidae                             | 47                   | 2.3          | 12.0         |
|        |               |              |                    | Synodontidae - Saurida sp.               | 210                  | 2.5          | 14.0         |
|        |               |              |                    | Synodontidae - Synodus foetens           | 253                  | 2.5          | 7.2          |
|        |               |              |                    | Tetraodontidae                           | 11                   | 2.5          | 4.0          |
|        |               |              |                    | Trichiuridae - Trichiurus lepturus       | 74                   | 6.8          | 6.8          |
|        |               |              |                    | Triglidae - Prionotus sp.                | 87                   | 2.5          | 7.0          |
|        |               |              |                    | Unknown                                  | 43                   | 2.0          | 4.8          |
| 4-03   | II <b>-</b> 7 | 505          | 275                | Bothidae                                 | 21                   | 2.5          | 6.0          |
|        | '             | ,-,          | -17                | Bothidae - Bothus ocellatus              | 14                   | 6.0          | 6.6          |
|        |               |              |                    | Branchiostegidae - Caulolatilus sp.      | 12                   | 2.2          | 2.8          |
|        |               |              |                    | Bregmacerotidae - Bregmaceros sp.        | 9                    | 3.0          | 6.3          |
|        |               | •            |                    | Bregmacerotidae - Bregmaceros atlanticus | 140                  | 1.8          | 9.7          |
|        |               |              |                    | Carangidae - Trachinotus sp.             | 2                    | 4.5          | 4.5          |
|        |               |              |                    | Carangidae - Trachurus lathami           | 158                  | 2.6          | 6.8          |
|        |               |              |                    | Clupeidae                                | 85                   | 4.0          | 7.7          |
|        |               |              |                    | Clupeidae - Etrumeus teres               | 16                   | 8.0          | 11.0         |
|        |               |              |                    | Clupeidae - Sardinella sp.               | 2                    | 8.7          | 8.7          |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>вize<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------|----------------------|
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole Gempylidae - Gempylus serpens Gobildae Gonostomatidae - Cyclothone sp. Gonostomatidae - Maurolicus sp. Mugilidae - Mugil sp. Mullidae Myctophidae - Benthosema suborbitale Myctophidae - Ceratoscopelus maderensis Myctophidae - Ceratoscopelus warmingi Myctophidae - Diaphus sp. Myctophidae - Diogenichthys atlanticus Myctophidae - Hygophum sp. Myctophidae - Hygophum reinhardti Myctophidae - Hygophum reinhardti Myctophidae - Lampanyctus sp. Myctophidae - Myctophum sp. Ogcocephalidae Ophidiidae Paralepididae Priacanthidae Scombridae - Scomber sp. Serranidae Serranidae - Diplectrum sp. Stromateidae - Cubiceps pauciradiatus Synodontidae - Saurida sp. Synodontidae - Synodus sp. Tetraodontidae - Prionotus sp. Triglidae - Prionotus sp. |                                              |                      |                      |
|                |                      |                     |                                            | Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 59                                           | 1.5                  | 6.7                  |

Appendix table 1. (Continued)

|        |              |      | ·                    |                                          |                      |      | , <del></del> |
|--------|--------------|------|----------------------|------------------------------------------|----------------------|------|---------------|
|        |              | Mesh | Number               |                                          | Number               | Min. | Max.          |
| Date   | Transect-    | size | eggs per             |                                          | larvae per           | size | size          |
| (1976) | station      | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm) | (mm)          |
| 4-03   | II <b>-7</b> | 333  | 361                  | Bothidae                                 | 17                   | 3.0  | 6.2           |
| 4-03   | TT-!         | 223  | 201                  | Bothidae - Bothus ocellatus              | 2                    | 4.8  | 4.8           |
|        |              |      |                      |                                          | 15                   | 1.9  | 3.1           |
|        |              |      |                      | Branchiostegidae - Caulolatilus sp.      | 6                    | _    | 4.8           |
|        |              |      |                      | Bregmacerotidae - Bregmaceros sp.        |                      | 3.7  |               |
|        |              |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 190                  | 1.7  | 11.0          |
|        |              |      |                      | Carangidae - Trachurus lathami           | 161                  | 2.1  | 7.0           |
|        |              |      |                      | Clupeidae                                | 117                  | 3.4  | 10.0          |
|        |              |      |                      | Clupeidae - Etrumeus teres               | 26                   | 7.4  | 13.0          |
|        |              |      |                      | Cynoglossidae - Symphurus sp.            | 18                   | 1.9  | 3.2           |
|        |              |      |                      | Engraulidae                              | 6                    | 6.5  | 7.2           |
|        |              |      |                      | Engraulidae - Engraulis eurystole        | 2                    | 8.7  | 8.7           |
|        |              |      |                      | Gempylidae - Gempylus serpens            | 7                    | 2.4  | 3.9           |
|        |              |      |                      | Gobiidae                                 | 101                  | 2.1  | 8.0           |
|        |              |      |                      | Gonostomatidae - Cyclothone sp.          | 2                    | 6.8  | 6.8           |
|        |              |      |                      | Gonostomatidae - Maurolicus sp.          | 15                   | 2.7  | 3.3           |
|        |              |      |                      | Mugilidae - <u>Mugil</u> sp.             | 81                   | 2.0  | 5.3           |
|        |              |      |                      | Mullidae                                 | 108                  | 2.0  | 4.6           |
|        |              |      |                      | Myctophidae                              | 123                  | 2.3  | 5.2           |
|        |              |      |                      | Myctophidae - Ceratoscopelus maderensis  | 7                    | 5.1  | 8.4           |
|        |              |      |                      | Myctophidae - Ceratoscopelus warmingi    | 11                   | 4.4  | 10.0          |
|        |              |      |                      | Myctophidae - Diaphus sp.                | 38                   | 3.0  | 6.7           |
|        |              |      |                      | Myctophidae - Diogenichthys atlanticus   | 2                    | 4.1  | 4.1           |
|        |              |      |                      | Myctophidae - Hygophum sp.               | <b>7</b> ‡           | 4.6  | 5.1           |
|        |              |      |                      | Myctophidae - Lampanyctus sp.            | 9                    | 3.2  | 3.5           |
|        |              | •    |                      | Myctophidae - Myctophum sp.              | 7                    | 4.2  | 6.3           |
|        |              |      |                      | Nettastomidae                            | 11                   | 5.3  | 8.2           |
|        |              |      | ••                   | Ophidiidae                               | 2                    | 5.2  | 5.2           |
|        |              |      |                      | Paralepididae                            | 6                    | 3.2  | 4.5           |
|        |              |      |                      | Priacanthidae                            | 2                    | 3.4  | 3.4           |
|        |              |      |                      | Scombridae - Scomber sp.                 | 20                   | 3.0  | 9.6           |

|            |               | Mesh | Number               |                                       | Number     | Min. | Max. |
|------------|---------------|------|----------------------|---------------------------------------|------------|------|------|
| Date (20%) | Transect-     | size | eggs per             |                                       | larvae per | size | size |
| (1976)     | station       | (µ)  | 1,000 m <sup>3</sup> | Larvae                                | 1.000 m3   | (mm) | (mm) |
| 4-03       | II <b>-</b> 7 | 333  |                      | Serranidae                            | 81         | 2.1  | 4.5  |
|            | •             |      |                      | Serranidae - Anthias sp.              | 4          | 2.5  | 3.4  |
|            |               |      |                      | Serranidae - Diplectrum sp.           | 51         | 4.3  | 8.6  |
|            |               |      |                      | Sphyraenidae - Sphyraena sp.          | 7          | 2.8  | 3.3  |
|            |               |      |                      | Stromateidae                          | 6          | 2.4  | 3.0  |
|            |               |      |                      | Stromateidae - Cubiceps pauciradiatus | 27         | 2.5  | 4.7  |
|            |               |      | •                    | Stromateidae - Peprilus burti         | 2          | 2.0  | 2.0  |
|            |               |      |                      | Synodontidae                          | 6          | 2.4  | 9.6  |
|            |               |      |                      | Synodontidae - Saurida sp.            | 103        | 2.6  | 7.5  |
|            |               |      |                      | Synodontidae - Synodus sp.            | 7          | 3.0  | 4.2  |
|            |               |      |                      | Triglidae                             | 7          | 2.3  | 3.0  |
|            |               |      |                      | Triglidae - Prionotus sp.             | 2          | 7.5  | 7.5  |
|            |               | •    |                      | Unknown                               | 119        | 1.5  | 8.2  |
| 6-07       | I-1           | 505  | 1,720                | Bothidae                              | 13         | 4.2  | 4.2  |
| •          |               |      | •                    | Bothidae - Bothus ocellatus           | 64         | 2.5  | 8.2  |
|            |               |      |                      | Bothidae - Syacium sp.                | 115        | 2.1  | 6.5  |
|            |               |      |                      | Bothidae - Syacium gunteri            | 153        | 7.0  | 14.0 |
|            |               |      |                      | Carangidae - Caranx sp.               | 26         | 2.8  | 6.0  |
|            |               |      |                      | Carangidae - Chloroscombrus chrysurus | 26         | 3.8  | 4.9  |
|            |               |      |                      | Carangidae - Selene vomer             | 13         | 3.0  | 3.0  |
|            |               |      |                      | Carangidae - Trachurus lathami        | 13         | 9.6  | 9.6  |
|            |               |      |                      | Clupeidae - Harengula jaguana         | 26         | 7.0  | 7.2  |
|            |               |      |                      | Cynoglossidae - Symphurus sp.         | 13         | 7.9  | 7.9  |
|            |               | •    | •                    | Engraulidae                           | 204        | 3.8  | 9.0  |
|            |               |      |                      | Engraulidae - Anchoa sp.              | 89         | 11.0 | 15.0 |
|            |               |      |                      | Engraulidae - Engraulis eurystole     | 13         | 15.0 | 15.0 |
|            |               |      |                      | Gobiidae                              | 280        | 2.8  | 8.9  |
|            |               |      |                      | Microdesmidae - Microdesmus sp.       | 229        | 3.6  | 8.9  |
|            |               |      |                      | Sciaenidae - Cynoscion sp.            | 38         | 3.5  | 3.6  |
|            |               |      |                      | Sciaenidae - Cynoscion nothus         | 13         | 8.6  | 8.6  |

Appendix table 1. (Continued)

|        |              | Mesh | Number               |                                      | Number               | Min. | Max. |
|--------|--------------|------|----------------------|--------------------------------------|----------------------|------|------|
| Date   | Transect-    | size | eggs per             |                                      | larvae per           | size | size |
| (1976) | station      | (µ)  | 1,000 m <sup>3</sup> | Larvae                               | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 6-07   | I-1          | 505  |                      | Scombridae - Auxis sp.               | 13                   | 4.0  | 4.0  |
| 0 01   | <b></b>      | ,,,  |                      | Scombridae - Euthynnus alletteratus  | 89                   | 3.2  | 5.2  |
|        |              |      |                      | Scombridae - Scomberomorus cavalla   | 13                   | 4.2  | 4.2  |
|        |              |      |                      | Serranidae - Diplectrum sp.          | 166                  | 2.3  | 5.9  |
|        |              |      |                      | Sphyraenidac - Sphyraena sp.         | 26                   | 2.8  | 3.6  |
|        |              |      |                      | Syngnathidae - Syngnathus louisianae | 26                   | 17.0 | 17.0 |
|        |              |      |                      | Triglidae - Prionotus sp.            | 13                   | 7.8  | 7.8  |
|        |              |      |                      | Unknown                              | 64                   | 2.5  | 7.0  |
| 6-07   | I-1          | 333  | 2,764                | Bothidae - Bothus ocellatus          | 49                   | 7.5  | 14.0 |
| •      |              | 000  | _,,,                 | Bothidae - Syacium sp.               | 147                  | 2.3  | 6.3  |
|        |              |      |                      | Bothidae - Syacium gunteri           | 172                  | 6.3  | 12.0 |
|        |              |      |                      | Clupeidae - Harengula jaguana        | 37                   | 6.2  | 7.2  |
|        |              |      |                      | Cynoglossidae - Symphurus sp.        | 49                   | 2.8  | 9.7  |
|        |              |      |                      | Engraulidae                          | 442                  | 3.1  | 7.0  |
|        |              |      |                      | Engraulidae - Anchoa sp.             | 111                  | 11.0 | 15.0 |
|        |              |      |                      | Gobiidae                             | 381                  | 1.8  | 6.0  |
|        |              |      |                      | Microdesmidae - Microdesmus sp.      | 418                  | 2.0  | 8.8  |
|        |              |      |                      | Sciaenidae - Cynoscion sp.           | 25                   | 2.5  | 2.8  |
|        |              |      |                      | Scombridae - Euthynnus alletteratus  | 61                   | 3.3  | 5.0  |
|        |              |      |                      | Scombridae - Scomberomorus cavalla   | 49                   | 3.1  | 4.5  |
|        |              |      |                      | Scombridae - Scomberomorus maculatus | 12                   | 2.9  | 2.9  |
|        |              |      |                      | Serranidae - Diplectrum sp.          | 246                  | 1.8  | 7.0  |
|        |              |      |                      | Soleidae - Gymnachirus sp.           | 12                   | 5.2  | 5.2  |
|        |              |      |                      | Sphyraenidae - Sphyraena sp.         | 98                   | 2.4  | 3.5  |
|        |              |      |                      | Stromateidae - Peprilus alepidotus   | 49                   | 1.7  | 9.0  |
|        |              |      |                      | Unknown                              | 61                   | 2.2  | 6.0  |
| 6-07   | I <b>-</b> 2 | 505  | 2,659                | Bothidae                             | 26                   | 3.0  | 5.5  |
|        |              |      |                      | Bothidae - Cyclopsetta sp.           | 9                    | 2.8  | 2.8  |

Appendix table 1. (Continued)

| <del></del>  |              | Mesh | Number               |                                          | Number               | Min. | Max. |
|--------------|--------------|------|----------------------|------------------------------------------|----------------------|------|------|
| Date         | Transect-    | size | eggs per             |                                          | larvae per           | size | size |
| (1976)       | station      | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 6-07         | I <b>-</b> 2 | 505  |                      | Bothidae - Syacium sp.                   | 246                  | 1.7  | 4.0  |
| <b>5 6</b> 1 |              | /-/  |                      | Bregmacerotidae - Bregmaceros sp.        | 17                   | 5.1  | 7.0  |
|              |              |      |                      | Bregmacerotidae - Bregmaceros atlanticus | <b>7</b> 99          | 2.0  | 7.5  |
|              |              |      |                      | Carangidae                               | 9                    | 2.7  | 2.7  |
|              |              |      |                      | Carangidae - Caranx sp.                  | 9                    | 2.7  | 2.7  |
|              |              |      |                      | Carangidae - Selene vomer                | 60                   | 2.0  | 2.5  |
|              |              |      |                      | Cynoglossidae - Symphurus sp.            | 102                  | 2.1  | 5.0  |
|              |              |      |                      | Engraulidae                              | 586                  | 3.5  | 7.6  |
|              |              |      |                      | Engraulidae - Anchoa sp.                 | 9                    | 13.0 | 13.0 |
|              |              |      |                      | Gobiidae                                 | 178                  | 2.4  | 6.0  |
|              | İ            |      |                      | Lutjanidae                               | 43                   | 3.3  | 4.5  |
|              |              |      |                      | Microdesmidae - Microdesmus sp.          | 314                  | 2.7  | 8.5  |
|              |              |      |                      | Muraenidae - Gymnothorax sp.             | 9                    | 54.0 | 54.0 |
|              |              |      |                      | Myctophidae - Benthosema suborbitale     | 9                    | 4.7  | 4.7  |
|              |              |      |                      | Myctophidae - Diogenichthys atlanticus   | 9                    | 4.2  | 4.2  |
|              |              |      |                      | Nettastomidae                            | 17                   | 5.0  | 6.2  |
|              |              |      |                      | Ophidiidae                               | 127                  | 4.0  | 10.0 |
|              | •            |      |                      | Scombridae - Euthynnus alletteratus      | 17                   | 3.1  | 5.6  |
|              |              |      |                      | Scombridae - Scomberomorus cavalla       | 102                  | 2.8  | 3.6  |
|              |              |      |                      | Scorpaenidae                             | . 9                  | 8.6  | 8.6  |
|              |              |      |                      | Serranidae - Diplectrum sp.              | 374                  | 2.2  | 5.1  |
|              |              |      |                      | Sphyraenidae - Sphyraena sp.             | 136                  | 2.2  | 4.0  |
|              |              |      |                      | Synodontidae                             | 34                   | 3.6  | 8.7  |
|              |              |      |                      | Synodontidae - Saurida sp.               | 26                   | 3.3  | 4.0  |
|              |              |      |                      | Triglidae - Prionotus sp.                | 9                    | 4.5  | 4.5  |
|              |              |      |                      | Unknown                                  | 187                  | 2.2  | 6.0  |
| 6-07         | I <b>-</b> 2 | 333  | 2,333                | Bothidae                                 | 44                   | 2.2  | 7.0  |
| I            | <u>-</u> -   | 200  | -,555                | Bothidae - Bothus sp.                    | 9                    | 2.7  | 2.7  |
|              |              |      |                      | Bothidae - Syacium sp.                   | 351                  | 1.4  | 5.3  |
|              |              |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 2,833                | 1.4  | 8.5  |

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Appendix table 1. (Continued)

|        |              | Mesh  | Number               |                                             | Number               | Min. | Max. |
|--------|--------------|-------|----------------------|---------------------------------------------|----------------------|------|------|
| Date   | Transect-    | size  | eggs per             |                                             | larvae per           | size | size |
| (1976) | station      | (µ)   | 1,000 m <sup>3</sup> | Larvae                                      | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 6-07   | I <b>-</b> 2 | 333   |                      | Carangidae                                  | 9                    | 2.7  | 2.7  |
| •      |              |       |                      | Carangidae - Caranx sp.                     | 44                   | 2.6  | 3.2  |
|        |              |       |                      | Carangidae - Selene vomer                   | 70                   | 2.4  | 3.3  |
|        |              |       |                      | Cynoglossidae - Symphurus sp.               | 184                  | 1.6  | 10.0 |
|        |              |       |                      | Engraulidae                                 | 921                  | 2.5  | 6.6  |
|        |              |       |                      | Engraulidae - Anchoa sp.                    | 26                   | 8.2  | 15.0 |
|        |              |       |                      | Engraulidae - Engraulis eurystole           | 9                    | 8.8  | 8.8  |
|        |              |       |                      | Gobiidae                                    | 368                  | 1.7  | 9.0  |
|        |              |       |                      | Lutjanidae                                  | 53                   | 2.6  | 3.6  |
|        |              |       |                      | Microdesmidae - Microdesmus sp.             | 561                  | 1.8  | 10.0 |
|        | ı            |       |                      | Mugilidae - Mugil sp.                       | 9                    | 3.2  | 3.2  |
|        |              |       |                      | Ophichthidae                                | 18                   | 4.6  | 22.0 |
|        |              |       |                      | Ophidiidae                                  | 105                  | 2.8  | 17.0 |
|        |              |       |                      | Scombridae                                  | 9                    | 2.2  | 2.2  |
|        |              |       |                      | Scombridae - Auxis sp.                      | 9                    | 3.7  | 3.7  |
|        |              |       |                      | Scombridae - Euthynnus alletteratus         | 9                    | 3.6  | 3.6  |
|        |              |       |                      | Scombridae - Scomberomorus cavalla          | 70                   | 2.4  | 3.7  |
|        |              |       |                      | Serranidae - Diplectrum sp.                 | 649                  | 1.9  | 5.5  |
|        |              |       |                      | Sphyraenidae - Sphyraena sp.                | 193                  | 2.0  | 4.7  |
|        |              |       |                      | Stromateidae - Peprilus alepidotus          | 9                    | 3.7  | 3.7  |
|        |              |       |                      | Stromateidae - <u>Peprilus</u> <u>burti</u> | 9                    | 3.3  | 3.3  |
|        |              |       |                      | Synodontidae - Saurida sp.                  | 105                  | 2.3  | 3.5  |
|        |              |       |                      | Synodontidae - Synodus sp.                  | 26                   | 3.2  | 4.0  |
|        |              |       |                      | Unknown                                     | 360                  | 1.5  | 6.6  |
| 6-06   | I <b>-</b> 3 | 505   | 220                  | Bothidae - Bothus ocellatus                 | 33                   | 3.5  | 17.0 |
|        | ¥ J          | , , , |                      | Bothidae - Syacium sp.                      | . 8                  | 2.2  | 3.2  |
|        |              |       |                      | Bothidae - Syacium gunteri                  | 14                   | 12.0 | 12.0 |
|        |              |       | ••                   | Bregmacerotidae - Bregmaceros sp.           | 17                   | 4.0  | 5.0  |
|        |              |       |                      | Bregmacerotidae - Bregmaceros atlanticus    | 2 <del>5</del>       | 4.3  | 8.5  |
|        |              |       |                      | Carangidae - Caranx sp.                     | 91                   | 2.7  | 5.0  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                       | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 6-06           | I <b>-</b> 3         | 505                 |                                            | Carangidae - <u>Decapterus punctatus</u><br>Carangidae - <u>Selene vomer</u> | <u>і</u> .<br>8                              | 5.4<br>2.8           | 5,4<br>4 <b>.</b> 9  |
|                |                      |                     |                                            | Congridae                                                                    | 8                                            | 8.0                  | 9.5                  |
|                |                      |                     | •                                          | Engraulidae                                                                  | 87                                           | 3.9                  | 6.8                  |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole                                            | 21                                           | 7.2                  | 10.0                 |
|                |                      |                     |                                            | Gerreidae                                                                    | 4                                            | 4.4                  | 4.4                  |
|                |                      |                     |                                            | Gobiidae                                                                     | 12                                           | 7.0                  | 8.0                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                                              | 25                                           | 4.1                  | 8.5                  |
|                |                      |                     |                                            | Gonostomatidae - Maurolicus sp.                                              | 42                                           | 3.5                  | 5.5                  |
|                |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.                                            | 17                                           | 5.5                  | 9.2                  |
|                | 1                    |                     |                                            | Microdesmidae - Microdesmus sp.                                              | 62                                           | 3.7                  | 8.8                  |
|                |                      |                     |                                            | Myctophidae                                                                  | 12                                           | 3.9                  | 5.3                  |
|                |                      |                     |                                            | Myctophidae - Benthosema suborbitale                                         | 8                                            | 3.5                  | 4.1                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis                                      | 8                                            | 11.0                 | 11.0                 |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                                                    | 145                                          | 3.0                  | 5.3                  |
|                |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus                                       | 12                                           | 3.7                  | 4.0                  |
|                |                      |                     | •                                          | Myctophidae - Hygophum sp.                                                   | 17                                           | 3.0                  | 5.0                  |
|                |                      |                     |                                            | Myctophidae - Hygophum reinhardti                                            | 8                                            | 6.1                  | 6.5                  |
|                |                      |                     |                                            | Myctophidae - Lampanyctus sp.                                                | 4                                            | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Myctophidae - Myctophum sp.                                                  | 8                                            | 5.4                  | 5.5                  |
|                |                      |                     |                                            | Myctophidae - Myctophum obtusirostre                                         | · 4                                          | 4.5                  | 4.5                  |
|                |                      |                     |                                            | Myctophidae - Notolychnus valdiviae                                          | 4                                            | 4.9                  | 4.9                  |
|                |                      |                     |                                            | Myctophidae - Notoscopelus sp.                                               | 8                                            | 3.8                  | 5.0                  |
|                |                      |                     |                                            | Nettastomidae                                                                | 4                                            | 6.3                  | 6.3                  |
|                |                      |                     |                                            | Ophichthidae                                                                 | 17                                           | 4.5                  | 16.0                 |
|                |                      |                     |                                            | Ophidiidae                                                                   | 4                                            | 10.0                 | 10.0                 |
|                |                      |                     |                                            | Paralepididae                                                                | 12                                           | 6.0                  | 7.0                  |
|                | ,                    |                     |                                            | Scombridae - Auxis sp.                                                       | 25<br>g                                      | 3.5                  | 4.8                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus                                          | 8<br>8                                       | 3.5<br>2.6           | 3.9<br>3.2           |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla                                           | 8                                            | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Scopelarchidae                                                               | U                                            | J.0                  | ٠.٥                  |

Appendix table 1. (Continued)

|                |                      | Mesh        | Number                           |                                           | Number                             | Min.         | Max.         |
|----------------|----------------------|-------------|----------------------------------|-------------------------------------------|------------------------------------|--------------|--------------|
| Date<br>(1976) | Transect-<br>station | size<br>(µ) | eggs per<br>1,000 m <sup>3</sup> | Larvae                                    | larvae per<br>1,000 m <sup>3</sup> | size<br>(mm) | size<br>(mm) |
| 6-06           | I <b>-</b> 3         | 505         |                                  | Serranidae                                | 14                                 | 3.3          | 3.3          |
|                |                      |             | _                                | Stromateidae                              | 8                                  | 4.2          | 5.0          |
|                |                      |             | •                                | Trichiuridae - Diplospinous multistriatus | 14                                 | 3.6          | 3.6          |
|                |                      |             |                                  | Unknown                                   | 54                                 | 2.2          | 4.4          |
| 6-06           | I-3                  | 333         | 213                              | Bathylagidae - Bathylagus sp.             | 14                                 | 9.2          | 9.2          |
|                |                      |             |                                  | Bothidae                                  | 9                                  | 2.3          | 4.6          |
|                |                      |             |                                  | Bothidae - Bothus sp.                     | 13                                 | 3.8          | 13.0         |
|                |                      |             |                                  | Bothidae - Bothus ocellatus               | 9                                  | 4.2          | 6.0          |
|                |                      |             |                                  | Bothidae - Syacium sp.                    | 30                                 | 2.0          | 3.5          |
|                |                      |             |                                  | Bothidae - Syacium gunteri                | 13                                 | 6.5          | 12.0         |
|                | ·                    |             |                                  | Bregmacerotidae - Bregmaceros sp.         | 209                                | 1.8          | 7.6          |
|                |                      |             |                                  | Bregmacerotidae - Bregmaceros atlanticus  | 222                                | 1.8          | 8.6          |
|                |                      |             |                                  | Carangidae - <u>Caranx</u> sp.            | 179                                | 2.3          | 4.9          |
|                |                      |             |                                  | Carangidae - Decapterus punctatus         | 14                                 | 4.6          | 4.6          |
|                |                      |             |                                  | Carangidae - Selene vomer                 | 17                                 | 2.7          | 3.1          |
|                |                      |             |                                  | Chiasmodontidae                           | 4                                  | 10.0         | 10.0         |
|                |                      |             |                                  | Cynoglossidae - Symphurus sp.             | 74                                 | 2.6          | 2.6          |
|                |                      |             |                                  | Engraulidae                               | 217                                | 3.5          | 7.8          |
|                |                      |             |                                  | Engraulidae - Engraulis eurystole         | . 21                               | 8.5          | 19.0         |
|                |                      |             |                                  | Gobiidae                                  | 102                                | 1.6          | 5.0          |
|                |                      |             |                                  | Gonostomatidae - Cyclothone sp.           | 30                                 | 3.5          | 12.0         |
|                |                      |             |                                  | Gonostomatidae - Gonostomus atlanticum    | 14                                 | 5.0          | 5.0          |
|                |                      |             |                                  | Gonostomatidae - Ichthyococcus sp.        | 4                                  | 8.6          | 8.6          |
|                |                      |             |                                  | Gonostomatidae - Maurolicus sp.           | 51                                 | 3.1          | 5.0          |
|                |                      |             |                                  | Gonostomatidae - Vinciguerria sp.         | 38                                 | 4.1          | 8.0          |
|                |                      |             |                                  | Melamphaidae                              | <u>,</u>                           | 3.6          | <b>3.</b> 6  |
|                |                      |             |                                  | Microdesmidae - Microdesmus sp.           | 85                                 | 3.0          | 9.5          |
|                |                      |             |                                  | Mugilidae - Mugil sp.                     | 14                                 | 4.5          | 4.5          |
|                |                      |             |                                  | Mullidae                                  | 14                                 | 3.0          | 3.0          |

Appendix table 1. (Continued)

| Date (1076) | Transect-    | Mesh<br>size | Number<br>eggs per                      | *************************************** | Number<br>larvae per | Min.<br>size | Max.<br>size |
|-------------|--------------|--------------|-----------------------------------------|-----------------------------------------|----------------------|--------------|--------------|
| (1976)      | station      | (µ)          | 1,000 m <sup>3</sup>                    | Larvae                                  | 1,000 m <sup>3</sup> | (mm)         | (mm)         |
| 6-06        | I <b>-</b> 3 | 333          |                                         | Myctophidae                             | 21                   | 3.3          | 4.8          |
| 0 00        | - 3          | 333          |                                         | Myctophidae - Benthosema suborbitale    | 9                    | 3.2          | 4.6          |
|             |              |              |                                         | Myctophidae - Ceratoscopelus maderensis | 9                    | 7.8          | 9.3          |
|             |              |              |                                         | Myctophidae - Ceratoscopelus warmingi   | 13                   | 5.7          | 9.5          |
|             |              |              |                                         | Myctophidae - Diaphus sp.               | 354                  | 2.2          | 9.2          |
|             |              |              |                                         | Myctophidae - Diogenichthys atlanticus  | 26                   | 3.1          | 5.1          |
|             |              |              |                                         | Myctophidae - Hygophum sp.              | 26                   | 3.8          | 5.0          |
|             |              |              |                                         | Myctophidae - Hygophum reinhardti       | 9                    | 4.4          | 7.0          |
|             |              |              |                                         | Myctophidae - Myctophum sp.             | 13                   | 6.0          | 7.7          |
|             |              |              |                                         | Myctophidae - Notolychnus valdiviae     | 13                   | 2.8          | 7.0          |
|             | ı            |              |                                         | Myctophidae - Notoscopelus sp.          | 9                    | 4.8          | 5.8          |
|             |              |              |                                         | Nettastomidae                           | 9                    | 5.2          | 16.0         |
|             |              |              |                                         | Ophichthidae                            | 34                   | 5.4          | 13.0         |
|             |              |              |                                         | Ophidiidae                              | 4                    | 2.8          | 2.8          |
|             |              |              |                                         | Paralepididae                           | 26                   | 2.7          | 6.3          |
|             |              |              |                                         | Priacanthidae                           | 4                    | 2.2          | 2.2          |
|             |              |              |                                         | Scombridae - Auxis sp.                  | 38                   | 2.9          | 5.5          |
|             |              |              | ••                                      | Scombridae - Euthynnus alletteratus     | 17                   | 2.8          | 4.3          |
|             |              |              |                                         | Scombridae - Scomberomorus cavalla      | 4                    | 3.2          | 3.2          |
|             |              |              |                                         | Serranidae                              | 4                    | 3.6          | 3.6          |
|             |              |              |                                         | Serranidae - Diplectrum sp.             | 9                    | 2.3          | 2.5          |
|             |              |              |                                         | Stromateidae                            | 21                   | 3.8          | 4.9          |
|             |              |              |                                         | Stromateidae - Cubiceps pauciradiatus   | 4                    | 6.9          | 6.9          |
|             |              |              |                                         | Unknown                                 | 98                   | 1.6          | 6.5          |
| 6-03        | II-l         | 505          | 1,934                                   | Bothidae - Syacium sp.                  | 12                   | 3.0          | 3.0          |
| 3-05        | * * - *      | , ,          | -,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Bothidae - Syacium gunteri              | 49                   | 10.0         | 13.0         |
|             |              |              |                                         | Clupeidae                               | 37                   | 3.5          | 3.5          |
|             |              |              |                                         | Clupeidae - Harengula jaguana           | 12                   | 6.8          | 6.8          |
|             |              |              |                                         | Engraulidae                             | 122                  | 3.2          | 7.4          |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m3 | Larvae                                | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|---------------------------------------|----------------------------------------------|----------------------|----------------------|
| 6-03           | II-l                 | 505                 |                                | Gobiidae                              | 12                                           | 3.3                  | 3.3                  |
| •              |                      |                     |                                | Sciaenidae - Menticirrhus sp.         | 12                                           | 2.0                  | 2.0                  |
|                |                      |                     |                                | Scombridae - Euthynnus alletteratus   | 61                                           | 2.6                  | 4.0                  |
|                |                      |                     |                                | Scombridae - Scomberomorus cavalla    | 25                                           | 2.7                  | 3.3                  |
|                |                      |                     |                                | Scombridae - Scomberomorus maculatus  | 12                                           | 2.9                  | 2.9                  |
|                |                      | •                   |                                | Serranidae - Diplectrum sp.           | 12                                           | 3.0                  | 3.0                  |
|                | ·-                   |                     |                                | Serranidae - Serraniculus pumilio     | 61                                           | 2.0                  | 3.2                  |
|                |                      |                     |                                | Sphyraenidae - Sphyraena sp.          | 12                                           | 2.5                  | 2.5                  |
|                |                      |                     |                                | Syngnathidae - Syngnathus louisianae  | 12                                           | 33.0                 | 33.0                 |
|                |                      |                     |                                | Triglidae - Prionotus sp.             | 12                                           | 2.8                  | 2.8                  |
|                |                      |                     |                                | Unknown                               | 25                                           | 6.0                  | 7.0                  |
| 6-03           | II-1                 | 333                 | 2,139                          | Bothidae - Syacium gunteri            | 49                                           | 7.9                  | 13.0                 |
|                |                      |                     | -                              | Carangidae                            | 12                                           | 1.6                  | 1.6                  |
|                |                      |                     |                                | Carangidae - Chloroscombrus chrysurus | 12                                           | 8.4                  | 8.4                  |
|                |                      |                     |                                | Carangidae - Selene vomer             | 12                                           | 2.1                  | 2.1                  |
|                | -                    |                     |                                | Clupeidae                             | 49                                           | 3.0                  | 5.3                  |
|                |                      |                     |                                | Cynoglossidae - <u>Symphurus</u> sp.  | 12                                           | 2.6                  | 2.6                  |
|                |                      |                     |                                | Engraulidae                           | 510                                          | 3.0                  | 7.1                  |
|                |                      |                     |                                | Engraulidae - Anchoa sp.              | 37                                           | 7.8                  | 10.0                 |
|                |                      |                     |                                | Gobiidae                              | 12                                           | 2.8                  | 2.8                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.       | 24                                           | 2.0                  | 2.6                  |
|                |                      |                     |                                | Sciaenidae - Menticirrhus sp.         | 37                                           | 2.2                  | 2.6                  |
|                |                      |                     |                                | Scombridae - Euthynnus alletteratus   | 24                                           | 2.5                  | 3.0                  |
|                |                      |                     |                                | Scombridae - Scomberomorus cavalla    | 24                                           | 2.4                  | 2.7                  |
|                |                      |                     |                                | Scombridae - Scomberomorus maculatus  | 24                                           | 2.5                  | 3.8                  |
|                | •                    |                     |                                | Serranidae - Diplectrum sp.           | 49                                           | 1.3                  | 2.6                  |
|                |                      |                     |                                | Serranidae - Serraniculus pumilio     | 24                                           | 2.6                  | 2.7                  |
|                |                      |                     |                                | Sphyraenidae - Sphyraena sp.          | 12                                           | 2.7                  | 2.7                  |
|                |                      |                     |                                | Unknown                               | 73                                           | 1.7                  | 6.3                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 6-04           | II-2                 | 505                 | 2,476                                      | Bothidae                                 | 57                                           | 2.5                  | 9.9                  |
| 0-04           | -1-c                 | 707                 | 2,7;0                                      | Bothidae - Syacium sp.                   | 233                                          | 2.1                  | 6.5                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri               | 13                                           | 7.0                  | 7.6                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 974                                          | 2.2                  | 24.0                 |
|                |                      |                     |                                            | Carangidae - Selene vomer                | 19                                           | 2.5                  | 4.7                  |
|                |                      |                     |                                            | Clupeidae                                | 6                                            | 5.3                  | 5.3                  |
| •              |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 50                                           | 3.5                  | 6.5                  |
|                |                      |                     |                                            | Engraulidae                              | 1,565                                        | 3.8                  | 8.3                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                 | 132                                          | 7.0                  | 14.0                 |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 19                                           | 11.0                 | 16.0                 |
|                |                      |                     |                                            | Gobiidae                                 | 1,113                                        | 2.6                  | 15.0                 |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 321                                          | 2.7                  | 10.0                 |
|                |                      |                     |                                            | Muraenidae - Gymnothorax sp.             | 13                                           | 60.0                 | 65.0                 |
|                |                      |                     |                                            | Nettastomidae                            | 6                                            | 92.0                 | 92.0                 |
|                |                      |                     |                                            | Ophichthidae                             | 25                                           | 8.3                  | 62.0                 |
|                |                      |                     |                                            | Ophidiidae                               | . 57                                         | 3.5                  | 9.8                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 38                                           | 3.2                  | 7.7                  |
|                |                      |                     |                                            | Serranidae - Diplectrum sp.              | 107                                          | 2.3                  | 4.5                  |
|                |                      |                     |                                            | Synodontidae                             | 13                                           | 8.5                  | 8.5                  |
|                |                      |                     |                                            | Synodontidae - Saurida sp.               | 50                                           | 3.4                  | 28.0                 |
|                |                      |                     |                                            | Tetraodontidae                           | 13                                           | 2.5                  | 3.0                  |
|                |                      |                     |                                            | Tetraodontidae - Sphoeroides sp.         | 6                                            | 4.8                  | 4.8                  |
|                |                      |                     |                                            | Trichiuridae - Trichiurus lepturus       | 13                                           | 5.5                  | 5.5                  |
|                |                      |                     |                                            | Unknown                                  | 69                                           | 2.0                  | 4.0                  |
| 6-04           | II <b>-</b> 2        | 333                 | 3,665                                      | Bothidae                                 | 90                                           | 1.8                  | 5.2                  |
| 0-04           | TT-5                 | درد                 | 3,007                                      | Bothidae - Bothus ocellatus              | 7                                            | 3.2                  | 3.2                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 290                                          | 1.5                  | 5.0                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri               | 19                                           | 5.9                  | 7.3                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 1,303                                        | 1.7                  | 24.0                 |
|                |                      |                     |                                            | Carangidae - Selene vomer                | 13                                           | 2.6                  | 3.0                  |

Appendix table 1. (Continued)

| Date Transect- size eggs per (1976) station (μ) 1,000 m <sup>3</sup> Larvae  6-04 II-2 333 Cynoglossidae - Symphurus sp. | larvae per<br>1,000 m <sup>3</sup> | size | _    |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------|------|------|
|                                                                                                                          | 1,000 m <sup>3</sup>               |      | size |
| 6 Oly TT 2 222 Campalagaides Campahyana an                                                                               |                                    | (mm) | (mm) |
|                                                                                                                          | 26                                 | 1.7  | 11.0 |
| Engraulidae Sp.                                                                                                          | 1,710                              | 2.3  | 7.5  |
| Engraulidae - Anchoa sp.                                                                                                 | 297                                | 6.5  | 15.0 |
| Gobiidae                                                                                                                 | 1,310                              | 1.6  | 10.0 |
| Lutjanidae                                                                                                               | 26                                 | 2.7  | 3.3  |
| Microdesmidae - Microdesmus sp.                                                                                          | 710                                | 1.7  | 15.0 |
| Muraenidae - Gymnothorax sp.                                                                                             | 13                                 | 7.3  | 58.0 |
| Nettastomidae                                                                                                            | 7                                  | 5.8  | 5.8  |
| Ophichthidae                                                                                                             | 7                                  | 69.0 | 69.0 |
| Ophidiidae                                                                                                               | 77                                 | 1.7  | 8.5  |
| Scombridae - Euthynnus alletteratus                                                                                      | 19                                 | 4.4  | 5.2  |
| Scombridae - Scomberomorus cavalla                                                                                       | 45                                 | 2.3  | 3.7  |
| Serranidae                                                                                                               | 7                                  | 3.2  | 3.2  |
| Serranidae - <u>Diplectrum</u> sp.                                                                                       | 181                                | 1.5  | 11.0 |
| Synodontidae - Saurida sp.                                                                                               | 84                                 | 2.4  | 23.0 |
| Synodontidae - Synodus sp.                                                                                               | 13                                 | 2.0  | 3.0  |
| Synodontidae - Synodus foetens                                                                                           | 13                                 | 7.2  | 14.0 |
| Tetraodontidae                                                                                                           | 13                                 | 3.0  | 3.0  |
| Tetraodontidae - Sphoeroides sp.                                                                                         | 7                                  | 4.4  | 4.4  |
| Trichiuridae - Trichiurus lepturus                                                                                       | 13                                 | 5.8  | 19.0 |
| Triglidae - Prionotus sp.                                                                                                | 7                                  | 4.1  | 4.1  |
| Unknown                                                                                                                  | 168                                | 1.3  | 9.1  |
| 6-05 II-3 505 122 Antennariidae                                                                                          | 10                                 | 2.3  | 3.2  |
| Bothidae - Bothus ocellatus                                                                                              | 23                                 | 3.8  | 8.6  |
| Bothidae - Syacium sp.                                                                                                   | 99                                 | 2.1  | 5.2  |
| Bothidae - Syacium gunteri                                                                                               | 7                                  | 7.2  | 8.0  |
| Bregmacerotidae - Bregmaceros atlanti                                                                                    | icus 10                            | 4.6  | 24.0 |
| Carangidae - Caranx sp.                                                                                                  | 169                                | 2.5  | 5.1  |
| Carangidae - Selene vomer                                                                                                | 7                                  | 5.5  | 6.2  |
| Cynoglossidae - Symphurus sp.                                                                                            | 17                                 | 3.6  | 4.0  |

| Date   | Transect-     | Mesh<br>size | Number<br>eggs per   |                                         | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|---------------|--------------|----------------------|-----------------------------------------|----------------------|--------------|--------------|
| (1976) | station       | (µ)          | 1,000 m <sup>3</sup> | Larvae                                  | 1,000 m3             | (mm)         | (mm)         |
| 6-05   | II <b>-</b> 3 | 505          |                      | Engraulidae                             | 268                  | 5.2          | 7.7          |
|        |               | , - ,        |                      | Engraulidae - Engraulis eurystole       | 36                   | 7.2          | 12.0         |
|        |               |              |                      | Gempylidae                              | 3                    | 4.0          | 4.0          |
|        |               |              | ŕ                    | Gobiidae                                | 76                   | 2.5          | 7.5          |
|        |               |              |                      | Gonostomatidae - Cyclothone sp.         | 50                   | 3.5          | 11.0         |
|        |               |              |                      | Gonostomatidae - Vinciguerria sp.       | 30                   | 4.2          | 13.0         |
|        |               |              |                      | Lutjanidae                              | 17                   | 2.9          | 3.8          |
|        |               |              |                      | Microdesmidae - Microdesmus sp.         | 116                  | 4.0          | 9.8          |
|        |               |              |                      | Mugilidae - Mugil sp.                   | 3                    | 4.4          | 4.4          |
|        | 1             |              |                      | Mullidae                                | 3                    | 4.8          | 4.8          |
|        | -             |              |                      | Myctophidae                             | 27                   | 2.6          | 4.2          |
|        |               |              |                      | Myctophidae - Ceratoscopelus maderensis | 53                   | 4.5          | 14.0         |
|        |               |              |                      | Myctophidae - Ceratoscopelus warmingi   | 10                   | 9.6          | 11.0         |
|        |               |              |                      | Myctophidae - Diaphus sp.               | 27                   | 2.9          | 7.7          |
|        |               |              |                      | Myctophidae - Diogenichthys atlanticus  | 7                    | 4.8          | 5.0          |
|        |               |              |                      | Myctophidae - Hygophum sp.              | 17                   | 3.8          | 4.2          |
|        |               |              |                      | Myctophidae - Hygophum reinhardti       | 17                   | 5.2          | 12.0         |
|        |               |              |                      | Myctophidae - Lampanyctus sp.           | 23                   | 3.0          | 5.7          |
|        |               |              |                      | Myctophidae - Myctophum obtusirostre    | 7                    | 3.6          | . 4.0        |
|        |               |              |                      | Myctophidae - Notoscopelus sp.          | 3                    | 4.0          | 4.0          |
|        |               |              |                      | Ophichthidae                            | 10                   | 8.2          | 9.0          |
|        |               |              |                      | Ophidiidae                              | 3                    | 7.8          | 7.8          |
|        |               |              |                      | Paralepididae                           | 63                   | 3.5          | 22.0         |
|        |               |              |                      | Scombridae - Auxis sp.                  | 17                   | 3.1          | 6.3          |
|        |               |              |                      | Scombridae - Euthynnus alletteratus     | 63                   | 2.8          | 5.7          |
|        |               |              |                      | Scombridae - Thunnus atlanticus         | 3                    | 5.5          | 5.5          |
|        |               |              |                      | Serranidae                              | 3                    | 2.8          | 2.8          |
|        | •             |              |                      | Serranidae - Anthias sp.                | 3                    | 2.8          | 2.8          |
|        |               |              |                      | Serranidae - Diplectrum sp.             | 23                   | 2.3          | 5.9          |
|        |               |              |                      | Serranidae - Hemanthias vivanus         | 3                    | 4.8          | 4.8          |
|        |               |              |                      | Stromateidae                            | 23                   | 2.7          | 3.9          |

Appendix table 1. (Continued)

| Date (1976)   | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                            | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|---------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------|----------------------|----------------------|
| 6-05          | II-3                 | 505                 |                                            | Stromateidae - <u>Cubiceps pauciradiatus</u><br>Synodontidae - <u>Saurida</u> sp. | 7<br>3                           | 4.5                  | 5.0<br>12.0          |
|               |                      |                     |                                            | Tetraodontidae - <u>Saurida</u> sp.                                               | 3                                | 2.2                  | 2.2                  |
|               |                      |                     |                                            | Trichiuridae - Diplospinous multistriatus                                         | 3                                | 3.5                  | 3.5                  |
|               |                      |                     |                                            | Unknown                                                                           | 122                              | 2.4                  | 6.0                  |
| 6 <b>-</b> 05 | II-3                 | 333                 | 1,348                                      | Antennariidae                                                                     | 10                               | 2.0                  | 3.1                  |
|               |                      |                     | •                                          | Bothidae                                                                          | 3                                | 8.6                  | 8.6                  |
|               |                      |                     |                                            | Bothidae - Bothus sp.                                                             | 10                               | 1.9                  | 7.0                  |
|               |                      |                     |                                            | Bothidae - Bothus ocellatus                                                       | 10                               | 6.5                  | 7.8                  |
|               |                      |                     |                                            | Bothidae - Syacium sp.                                                            | 98                               | 2.4                  | 4.2                  |
|               |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.                                                 | <b>57</b>                        | 1.5                  | 3.0                  |
|               |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus                                          | 10                               | 4.5                  | 26.0                 |
|               |                      |                     |                                            | Carangidae - Caranx sp.                                                           | 168                              | 2.3                  | 5.5                  |
|               |                      |                     |                                            | Carangidae - Decapterus punctatus                                                 | 7                                | 3.2                  | 4.7                  |
|               |                      |                     |                                            | Carangidae - Selene vomer                                                         | 7                                | 3.6                  | 4.0                  |
|               |                      |                     |                                            | Cynoglossidae - Symphurus sp.                                                     | 20                               | 2.7                  | 3.7                  |
|               |                      |                     |                                            | Engraulidae                                                                       | 232                              | 3.8                  | 8.2                  |
|               |                      |                     |                                            | Engraulidae - <u>Anchoa</u> sp.                                                   | 24                               | 6.7                  | 8.5                  |
|               |                      |                     |                                            | Engraulidae - Engraulis eurystole                                                 | 20                               | 8.9                  | 10.0                 |
|               |                      |                     |                                            | Gobiidae                                                                          | 54                               | 3.2                  | 7.2                  |
|               |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                                                   | 24                               | 3.3                  | 8.8                  |
|               |                      |                     | •                                          | Gonostomatidae - Vinciguerria sp.                                                 | 20                               | 3.5                  | 13.0                 |
|               |                      |                     |                                            | Lutjanidae                                                                        | 7                                | 3.4                  | 3.6                  |
|               |                      |                     |                                            | Microdesmidae - Microdesmus sp.                                                   | 138                              | 2.0                  | 9.8                  |
|               |                      |                     |                                            | Mugilidae - <u>Mugil</u> sp.                                                      | 3                                | 4.6                  | 4.6                  |
|               |                      |                     |                                            | Mullidae                                                                          | 10                               | 5.3                  | 8.5                  |
|               |                      |                     |                                            | Myctophidae                                                                       | 47                               | 2.2                  | 5.2                  |
|               |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis                                           | 20                               | 9.6                  | 13.0                 |
|               |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi                                             | 17                               | 8.5                  | 13.0                 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                     | Number<br>larvae per<br>1,000 m <sup>3</sup>                           | Min.<br>size<br>(mm)                                                                    | Max.<br>size<br>(mm)                                                                              |
|----------------|----------------------|---------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 6-05           | II-3                 | 333                 | 1,000 11                                   | Myctophidae - Diaphus sp.  Myctophidae - Diogenichthys atlanticus  Myctophidae - Hygophum sp.  Myctophidae - Hygophum reinhardti  Myctophidae - Lampadena sp.  Myctophidae - Myctophum sp.  Myctophidae - Myctophum sp.  Myctophidae - Notolychnus valdiviae  Nettastomidae  Ophichthidae  Ophidiidae  Paralepididae  Scaridae  Scombridae | 10<br>10<br>10<br>30<br>3<br>30<br>13<br>13<br>3<br>13<br>3<br>50<br>3 | 2.8<br>3.7<br>2.4<br>2.5<br>2.5<br>2.5<br>2.0<br>7.0<br>3.5<br>2.7<br>3.5<br>2.5<br>2.6 | 6.6<br>4.8<br>5.5<br>10.0<br>5.4<br>4.8<br>4.2<br>6.0<br>6.0<br>15.0<br>7.0<br>11.0<br>8.6<br>4.3 |
|                |                      |                     |                                            | Scombridae - Auxis sp. Scombridae - Euthynnus alletteratus Scombridae - Scomberomorus cavalla Serranidae Serranidae - Diplectrum sp. Stromateidae Stromateidae - Cubiceps pauciradiatus Synodontidae - Saurida sp. Trichiuridae - Lepidopus sp. Unknown                                                                                    | 27<br>61<br>27<br>13<br>24<br>10<br>10<br>10                           | 4.1<br>2.6<br>2.7<br>2.8<br>1.7<br>2.9<br>3.5<br>8.7<br>4.5<br>1.7                      | 10.0<br>7.2<br>4.6<br>3.7<br>3.2<br>3.4<br>5.5<br>12.0<br>4.5<br>9.0                              |
| 6-04           | II-4                 | 505                 | 6,959                                      | Blenniidae Bothidae Bothidae - Bothus ocellatus Bothidae - Syacium sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae - Chloroscombrus chrysurus                                                                                                                                                                                      | 13<br>52<br>13<br>129<br>142<br>26                                     | 2.3<br>2.9<br>11.0<br>1.9<br>2.3<br>2.2                                                 | 2.3<br>4.8<br>11.0<br>6.7<br>34.0<br>3.4                                                          |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                          | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 6-04           | II-4                 | 505                 |                                            | Carangidae - Selene vomer                       | 39                                           | 2.2                  | 3.2                  |
|                |                      |                     |                                            | Clupeidae                                       | 26                                           | 4.0                  | 5.0                  |
|                |                      |                     |                                            | Clupeidae - Harengula jaguana                   | 13                                           | 5.7                  | 5.7                  |
|                |                      |                     |                                            | Engraulidae                                     | 1,302                                        | 3.0                  | 8.8                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                        | 1,766                                        | 6.9                  | 20.0                 |
|                |                      |                     |                                            | Gobiidae                                        | 438                                          | 2.9                  | 11.0                 |
|                | •                    |                     | •                                          | Microdesmidae - Microdesmus sp.                 | 90                                           | 5.5                  | 12.0                 |
|                |                      |                     |                                            | Nettastomidae                                   | 13                                           | 6.0                  | 6.0                  |
|                |                      |                     |                                            | Ophichthidae                                    | 26                                           | 4.6                  | 58.0                 |
|                |                      |                     |                                            | Ophidiidae                                      | 258                                          | 4.3                  | 19.0                 |
|                |                      |                     |                                            | Sciaenidae - Cynoscion sp.                      | 13                                           | 3.5                  | 3.5                  |
|                |                      |                     |                                            | Sciaenidae - Menticirrhus sp.                   | 13                                           | 3.5                  | 3.5                  |
| ,              |                      |                     |                                            | Scombridae - Euthynnus alletteratus             | 13                                           | 4.0                  | 4.0                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus maculatus            | 13                                           | 4.2                  | 4.2                  |
|                |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.              | 271                                          | 2.4                  | 4.6                  |
|                |                      |                     |                                            | Serranidae - <u>Serraniculus</u> <u>pumilio</u> | 26                                           | 2.6                  | 3.3                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.                    | 13                                           | 4.5                  | 4.5                  |
|                |                      |                     |                                            | Synodontidae                                    | 13                                           | 8.0                  | 8.0                  |
|                |                      |                     |                                            | Synodontidae - <u>Saurida</u> sp.               | _52                                          | 3.0                  | 3.3                  |
|                |                      |                     |                                            | Tetraodontidae                                  | 26                                           | 3.1                  | 4.0                  |
|                |                      |                     |                                            | Trichiuridae - Trichiurus lepturus              | 13                                           | 14.0                 | 14.0                 |
|                |                      |                     |                                            | Unknown                                         | 39                                           | 3.2                  | 12.0                 |
| 6-04           | II-14                | 333                 | 7,491                                      | Bothidae                                        | 71                                           | 1.6                  | 4.8                  |
|                |                      |                     |                                            | Bothidae - Cyclopsetta sp.                      | 12                                           | 10.0                 | 10.0                 |
|                |                      |                     |                                            | Bothidae - Syacium sp.                          | 83                                           | 1.7                  | 5.7                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus        | <b>5</b> 59                                  | 1.5                  | 24.0                 |
|                |                      |                     |                                            | Carangidae - Selene vomer                       | 12                                           | 3.4                  | 3.4                  |
|                |                      |                     |                                            | Clupeidae - Harengula jaguana                   | 95                                           | 4.1                  | 6.0                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.                   | 12                                           | 3.3                  | 3.3                  |
|                |                      |                     |                                            | Engraulidae                                     | 1,784                                        | 2.8                  | 10.0                 |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                      | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 6-04           | II-4                 | 333                 |                                            | Engraulidae - <u>Anchea</u> sp.<br>Engraulidae - <u>Engraulis</u> eurystole | 1,379<br>24                                  | 7,8<br>16.0          | 21.0<br>17.0         |
|                |                      |                     |                                            | Gobiidae                                                                    | 559                                          | 1.8                  | 11.0                 |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.                                             | 131                                          | 2.0                  | 8.0                  |
|                |                      |                     |                                            | Mullidae                                                                    | 24                                           | 2.9                  | 4.5                  |
|                |                      |                     |                                            | Muraenidae - Gymnothorax sp.                                                | 24                                           | 50.0                 | 70.0                 |
|                |                      |                     |                                            | Nettastomidae                                                               | 24                                           | 6.0                  | 6.8                  |
|                |                      |                     |                                            | Ophidiidae                                                                  | 250                                          | 2.3                  | 14.0                 |
|                |                      |                     |                                            | Pomadasyidae - Haemulon sp.                                                 | 12                                           | 5.8                  | 5.8                  |
|                |                      |                     |                                            | Sciaenidae - Cynoscion sp.                                                  | 24                                           | 2.6                  | 6.4                  |
|                |                      |                     |                                            | Sciaenidae - Menticirrhus sp.                                               | 12                                           | 3.0                  | 3.0                  |
|                |                      |                     |                                            | Scombridae                                                                  | 12                                           | 2.2                  | 2.2                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus                                         | 12                                           | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla                                          | 24                                           | 2.4                  | 4.2                  |
|                |                      |                     |                                            | Serranidae - Diplectrum sp.                                                 | 261                                          | 2.6                  | 5.0                  |
|                |                      |                     |                                            | Synodontidae                                                                | 24                                           | 3.2                  | 4.2                  |
|                |                      |                     |                                            | Tetraodontidae                                                              | 24                                           | 3.1                  | 3.3                  |
|                |                      |                     |                                            | Tetraodontidae - Sphoeroides sp.                                            | 12                                           | 4.5                  | 4.5                  |
|                |                      |                     |                                            | Unknown                                                                     | 60                                           | 1.6                  | 15.0                 |
| 6-06           | II <b>-</b> 5        | 505                 | 415                                        | Bothidae - Bothus ocellatus                                                 | 14                                           | 2.3                  | 8.4                  |
|                | ·                    |                     | -                                          | Bothidae - Syacium sp.                                                      | 28                                           | 2.2                  | 5.4                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri                                                  | 9                                            | 6.2                  | 6.3                  |
|                |                      |                     |                                            | Carangidae - Caranx sp.                                                     | 254                                          | 2.6                  | 5.0                  |
|                |                      |                     |                                            | Carangidae - Selene vomer                                                   | 28                                           | 2.5                  | 3.3                  |
|                |                      |                     |                                            | Clupeidae - Harengula jaguana                                               | 5                                            | 6.2                  | 6.2                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.                                               | 5                                            | 3.4                  | 3.4                  |
|                |                      |                     |                                            | Engraulidae                                                                 | 226                                          | 3.0                  | 7.5                  |
|                |                      |                     |                                            | Gobiidae                                                                    | <b>7</b> 5                                   | 2.2                  | 6.5                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                                             | 5                                            | 4.7                  | 4.7                  |
|                |                      |                     |                                            | Lutjanidae                                                                  | 38                                           | 2.8                  | 4.0                  |

Appendix table 1. (Continued)

| Date   | Transect-     | Mesh<br>size | Number<br>eggs per                      |                                          | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|---------------|--------------|-----------------------------------------|------------------------------------------|----------------------|--------------|--------------|
| (1976) | station       | β126<br>(μ)  | 1,000 m <sup>3</sup>                    | Larvae                                   | 1,000 m <sup>3</sup> | (mm)         | (mm)         |
|        | Thui 1 T      |              | *************************************** |                                          |                      |              |              |
| 6-06   | II <b>-</b> 5 | 505          |                                         | Microdesmidae - Microdesmus sp.          | 179                  | 3.5          | 15.0         |
|        |               |              |                                         | Mugilidae - Mugil sp.                    | 9                    | 2.5          | 5.0          |
|        |               |              |                                         | Mullidae                                 | 14                   | 2.8          | 5.0          |
|        |               |              |                                         | Myctophidae                              | 5                    | 3.3          | 3.3          |
|        |               |              |                                         | Myctophidae - <u>Diaphus</u> sp.         | 5                    | 3.3          | 3.3          |
|        |               |              |                                         | Myctophidae - Lampanyctus sp.            | 5                    | 4.0          | ħ.0          |
|        |               |              |                                         | Nettastomidae                            | 5                    | 28.0         | 28.0         |
|        |               |              |                                         | Ophichthidae                             | 19                   | 5.8          | 10.0         |
|        |               |              |                                         | Ophidiidae                               | 42                   | 4.5          | 12.0         |
|        |               |              |                                         | Paralepididae                            | 9                    | 6.2          | 10.0         |
|        |               |              |                                         | Scombridae - Auxis sp.                   | 38                   | 2.9          | 5.1          |
|        |               |              |                                         | Scombridae - Euthynnus alletteratus      | 160                  | 3.1<br>2.8   | 5.6<br>4.6   |
|        |               |              |                                         | Scombridae - Scomberomorus cavalla       | 9<br>5               | 2.8          | 2.8          |
|        |               |              | ·                                       | Serranidae                               |                      | 4.0          | 4.0          |
|        |               |              |                                         | Serranidae - Anthias sp.                 | 5<br>24              | 2.8          | 7.4          |
|        |               |              |                                         | Serranidae - Diplectrum sp.              | 5                    | 3.7          | 3.7          |
|        |               |              |                                         | Sphyraenidae - Sphyraena sp.             | 5                    | 7.0          | 7.0          |
|        |               |              |                                         | Sphyraenidae - Sphyraena guachancho      | 19                   | 4.6          | 5.4          |
|        |               |              |                                         | Stromateidae                             | 19<br>14             | 3.0          | 7.5          |
|        |               |              |                                         | Synodontidae - Saurida sp.               | 5                    | 3.2          | 3.2          |
|        |               |              |                                         | Tetraodontidae                           | 33                   | 2.8          | 5.8          |
|        |               |              |                                         | Unknown                                  | 33                   | 2.0          | 7.0          |
| 6-06   | II <b>-</b> 5 | 333          | 383                                     | Bothidae                                 | 14                   | 2.0          | 2.3          |
| 0 00   | /             | 333          | 505                                     | Bothidae - Bothus ocellatus              | 19                   | 3.9          | 16.0         |
|        |               |              |                                         | Bothidae - Syacium sp.                   | 168                  | 1.5          | 5.2          |
|        |               |              |                                         | Bothidae - Syacium gunteri               | 10                   | 6.7          | 7.1          |
|        |               |              |                                         | Bregmacerotidae - Bregmaceros atlanticus | 24                   | 1.5          | 1.7          |
|        |               |              |                                         | Carangidae - Caranx sp.                  | 331                  | 2.7          | 7.1          |
|        |               |              |                                         | Carangidae - Selene vomer                | 38                   | 2.4          | 2.9          |
|        |               |              |                                         | Clupeidae - Harengula jaguana            | 5                    | 8.2          | 8.2          |

|        |               | Mesh | Number               |                                          | Number               | Min. | Max. |
|--------|---------------|------|----------------------|------------------------------------------|----------------------|------|------|
| Date   | Transect-     | size | eggs per             |                                          | larvae per           | size | size |
| (1976) | station       | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm) | (mm) |
|        |               |      |                      | •                                        |                      |      |      |
| 6-06   | II <b>-</b> 5 | 333  |                      | Congridae                                | 5                    | 10.0 | 10.0 |
|        |               |      |                      | Cynoglossidae - Symphurus sp.            | 14                   | 1.9  | 2.5  |
|        |               |      |                      | Engraulidae                              | 355                  | 3.8  | 7.0  |
|        |               |      |                      | Engraulidae - <u>Anchoa</u> sp.          | 38                   | 7.1  | 9.0  |
|        |               |      |                      | Engraulidae - Engraulis eurystole        | 19                   | 7.8  | 9.0  |
|        |               |      | •                    | Gempylidae                               | 5                    | 3.0  | 3.0  |
|        |               |      |                      | Gobiidae                                 | 91                   | 1.5  | 8.3  |
|        |               |      |                      | Gonostomatidae - Cyclothone sp.          | 10                   | 4.0  | 6.4  |
|        |               |      |                      | Gonostomatidae - <u>Vinciguerria</u> sp. | 5                    | 6.3  | 6.3  |
|        |               |      |                      | Grammistidae - Rypticus saponaceus       | 5                    | 3.2  | 3.2  |
|        |               |      |                      | Lutjanidae                               | <b>7</b> 7           | 2.0  | 3.9  |
|        |               |      |                      | Microdesmidae - <u>Microdesmus</u> sp.   | 273                  | 2.6  | 11.0 |
|        |               |      |                      | Mullidae                                 | 19                   | 3.3  | 4.2  |
|        |               |      |                      | Muraenidae - Gymnothorax sp.             | 5                    | 18.0 | 18.0 |
|        |               |      |                      | Myctophidae - Ceratoscopelus warmingi    | 5                    | 3.5  | 3.5  |
|        |               |      |                      | Myctophidae - Diaphus sp.                | 48                   | 2.8  | 7.6  |
|        |               |      |                      | Myctophidae - Lampanyctus sp.            | 5                    | 3.7  | 3.7  |
|        |               |      |                      | Myctophidae - Myctophum sp.              | 5                    | 7.8  | 7.8  |
|        |               |      |                      | Ophichthidae                             | 19                   | 6.8  | 9.3  |
|        |               |      |                      | Ophidiidae                               | 29                   | 3.3  | 15.0 |
|        |               |      |                      | Paralepididae                            | 5                    | 5.0  | 5.0  |
|        |               |      |                      | Scombridae - Auxis sp.                   | 19                   | 3.2  | 4.6  |
|        |               |      |                      | Scombridae - Euthynnus alletteratus      | 134                  | 2.6  | 5.3  |
|        |               |      |                      | Scombridae - Scomberomorus cavalla       | 29                   | 2.7  | 5.0  |
|        |               |      |                      | Serranidae - Anthias sp.                 | 10                   | 4.1  | 4.7  |
|        |               |      |                      | Serranidae - Diplectrum sp.              | 43                   | 2.0  | 8.0  |
|        |               |      |                      | Sparidae                                 | 5                    | 8.5  | 8.5  |
|        |               |      |                      | Sphyraenidae - Sphyraena sp.             | 10                   | 4.1  | 4.2  |
|        |               |      |                      | Stromateidae                             | 14                   | 3.8  | 4.5  |
|        |               |      |                      | Stromateidae - Cubiceps pauciradiatus    | 5                    | 5.3  | 5.3  |
|        |               |      |                      | Stromateidae - Peprilus burti            | 5                    | 2.4  | 2.4  |

| Date   | Transect- | Mesh<br>size | Number<br>eggs per   | · · · · · · · · · · · · · · · · · · ·    | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|-----------|--------------|----------------------|------------------------------------------|----------------------|--------------|--------------|
| (1976) | station   | (µ)          | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m3             | (mm)         | (mm)         |
| 6-06   | II~5      | 333          |                      | Synodontidae - Saurida sp.               | 29                   | 2.5          | 6.8          |
|        | /         | 333          |                      | Tetraodontidae                           | 5                    | 2.7          | 2.7          |
|        |           |              |                      | Unknown                                  | 29                   | 2.4          | 5.5          |
|        |           |              |                      | VIII.10 H11                              |                      |              | 7.7          |
| 6-06   | 11-6      | 505          | 476                  | Antennariidae                            | 4                    | 4.1          | 4.1          |
|        |           |              |                      | Bothidae - Bothus sp.                    | 9                    | 7.5          | 7.6          |
|        |           |              |                      | Bothidae - Bothus ocellatus              | 9                    | 3.2          | 7.0          |
|        |           |              |                      | Bothidae - Syacium sp.                   | <b>6</b> 6           | 2.5          | 5.3          |
|        |           |              |                      | Bothidae - Syacium gunteri               | 9                    | 7.4          | 9.6          |
|        |           |              |                      | Bregmacerotidae - Bregmaceros sp.        | 18                   | 2.1          | 3.0          |
|        | •         |              |                      | Bregmacerotidae - Bregmaceros atlanticus | 9                    | 5.2          | 6.5          |
|        |           |              |                      | Carangidae - Caranx sp.                  | 66                   | 3.2          | 5.3          |
|        |           |              |                      | Carangidae - Selene vomer                | 4                    | 3.4          | 3.4          |
|        |           |              |                      | Chiasmodontidae                          | 4                    | 7.7          | 7.7          |
|        |           |              |                      | Cynoglossidae - Symphurus sp.            | <b>1</b> 4           | 7.1          | 7.1          |
|        |           |              |                      | Engraulidae                              | <b>7</b> 5           | 5.2          | 8.3          |
|        |           |              |                      | Engraulidae - Anchoa sp.                 | 4                    | 8.7          | 8.7          |
|        |           |              |                      | Engraulidae - Engraulis eurystole        | 13                   | 8.0          | 12.0         |
|        |           |              |                      | Gobiidae                                 | 35                   | 2.7          | 4.6          |
|        |           |              |                      | Gonostomatidae - Cyclothone sp.          | 9                    | 3.5          | 4.7          |
|        |           |              |                      | Gonostomatidae - Maurolicus sp.          | 9                    | 5.0          | 5.0          |
|        |           |              |                      | Gonostomatidae - Vinciguerria sp.        | 22                   | 5.2          | 7.5          |
|        |           |              |                      | Kyphosidae - Kyphosus sp.                | 4                    | 4.0          | 4.0          |
|        |           |              |                      | Lutjanidae                               | 13                   | 3.3          | 4.3          |
|        |           |              |                      | Microdesmidae - Microdesmus sp.          | 71                   | 4.6          | 11.0         |
|        |           |              |                      | Myctophidae - Ceratoscopelus warmingi    | 9                    | 4.1          | 5.8          |
|        |           |              |                      | Myctophidae - Diaphus sp.                | 53                   | 2.7          | 5.5          |
|        |           |              |                      | Myctophidae - Hygophum sp.               | 9                    | 5.0          | 5.3          |
|        |           |              |                      | Myctophidae - Hygophum reinhardti        | 14                   | 5.0          | 5.0          |
|        |           |              |                      | Myctophidae - Lampanyctus sp.            | 4                    | 3.5          | 3.5          |
|        |           |              |                      | Myctophidae - Myctophum sp.              | 4                    | 3.1          | 3.1          |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                  | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|---------------------------------------------------------|----------------------------------|----------------------|----------------------|
| 6-06           | II <b>-</b> 6        | 505                 |                                            | Myctophidae - Myctophum obtusirostre                    | 1;                               | 4.3                  | 4.3                  |
|                |                      |                     |                                            | Myctophidae - Notolychnus valdiviae                     | 14                               | 4.0                  | 4.0                  |
|                |                      |                     |                                            | Myctophidae - Notoscopelus sp.                          | 13                               | 3.2                  | 4.4                  |
|                |                      |                     |                                            | Nettastomidae                                           | 9<br>4                           | 5.8                  | 6.0                  |
|                |                      |                     |                                            | Ogcocephalidae                                          | 18                               | 3.2                  | 3.2                  |
|                |                      |                     |                                            | Ophichthidae<br>Ophidiidae                              | 10<br>14                         | 5.0<br>6.7           | 8.0<br>6.7           |
|                |                      |                     |                                            | Paralepididae                                           | 9                                | 4.7                  | 5.2                  |
|                |                      |                     |                                            | Priacanthidae                                           | 13                               | 2.6                  | 3.5                  |
|                |                      |                     |                                            | Scombridae - Auxis sp.                                  | 44                               | 3.0                  | 5.7                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus                     | 26                               | 3.5                  | 5.7                  |
|                |                      |                     |                                            | Scombridae - Katsuwonus pelamis                         | 14                               | 6.7                  | 6.7                  |
|                |                      |                     |                                            | Scombridae - Thunnus thynnus                            | 4                                | 6.0                  | 6.0                  |
|                |                      |                     |                                            | Serranidae                                              | 4                                | 3.5                  | 3.5                  |
|                |                      |                     |                                            | Stromateidae                                            | 137                              | 2.7                  | 3.8                  |
|                |                      |                     |                                            | Trichiuridae - <u>Diplospinous</u> <u>multistriatus</u> | 9                                | 4.8                  | 5.1                  |
|                |                      |                     |                                            | Triglidae - <u>Prionotus</u> sp.                        | 14                               | 3.4                  | 3.4                  |
|                |                      |                     |                                            | Unknown                                                 | 53                               | 2.4                  | 5.3                  |
| 6-06           | 11-6                 | 333                 | 462                                        | Bothidae - Bothus ocellatus                             | 13                               | 3.0                  | 10.0                 |
|                |                      |                     |                                            | Bothidae - Syacium sp.                                  | 93                               | 2.4                  | 4.9                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri                              | 18                               | 6.2                  | 7.5                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.                       | 40                               | 1.5                  | 3.0                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus                | 13                               | 1.4                  | 1.7                  |
|                |                      |                     |                                            | Carangidae - Caranx sp.                                 | 67                               | 2.6                  | 4.0                  |
|                |                      |                     |                                            | Carangidae - Decapterus punctatus                       | 9                                | 3.5                  | 3.6<br>4.1           |
|                |                      |                     |                                            | Carangidae - Selene vomer                               | 13<br>4                          | 3.1<br>10.0          | 10.0                 |
|                |                      |                     |                                            | Chiasmodontidae<br>Cynoglossidae - Symphurus sp.        | 13                               | 2.1                  | 3.2                  |
|                |                      |                     |                                            | Engraulidae                                             | 124                              | 5.9                  | 8.8                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                                | 31                               | 7.4                  | 8.0                  |

Appendix table 1. (Continued)

| Date   | Transect-     | Mesh<br>size | Number<br>eggs per   |                                           | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|---------------|--------------|----------------------|-------------------------------------------|----------------------|--------------|--------------|
| (1976) | station       | (µ)          | 1,000 m <sup>3</sup> | Larvae                                    | 1,000 m <sup>3</sup> | (mm)         | (mm)         |
| 6-06   | 11-6          | 333          |                      | Engraulidae - Engraulis eurystole         | 14                   | 11.0         | 11.0         |
| 0-00   | 11-0          | 222          |                      | Gobiidae                                  | 89                   | 2.3          | 7.2          |
|        |               |              |                      | Gonostomatidae - Vinciguerria sp.         | 18                   | 4.0          | 7.7          |
|        |               |              |                      | Lutjanidae                                | 36                   | 2.6          | 3.5          |
|        |               |              |                      | Microdesmidae - Microdesmus sp.           | 107                  | 2.8          | 10.0         |
|        |               |              |                      | Mullidae                                  | 9                    | 2.8          | 3.0          |
|        |               |              |                      | Myctophidae - Diaphus sp.                 | 49                   | 2.5          | 5.6          |
|        |               |              |                      | Myctophidae - Hygophum sp.                | 9                    | 3.9          | 5.6          |
|        |               |              |                      | Myctophidae - Lampanyctus sp.             | 13                   | 3.0          | 3.7          |
|        |               |              |                      | Myctophidae - Myctophum sp.               | 9                    | 3.0          | 7.0          |
|        |               |              |                      | Myctophidae - Notolychnus valdiviae       | 13                   | 3.0          | 3.8          |
|        |               |              |                      | Myctophidae - Notoscopelus sp.            | 4                    | 4.6          | 4.6          |
|        |               |              |                      | Ophichthidae                              | 4                    | 11.0         | 11.0         |
|        |               |              |                      | Ophidiidae                                | 4                    | 7.4          | 7.4          |
|        |               |              |                      | Paralepididae                             | 36                   | 2.8          | 5.2          |
|        |               |              |                      | Scombridae - Auxis sp.                    | 31                   | 2.9          | 4.8          |
|        |               |              |                      | Scombridae - Euthynnus alletteratus       | 27                   | 3.1          | 4.3          |
|        |               |              |                      | Scombridae - Katsuwonus pelamis           | 9                    | 4.3          | 8.7          |
|        |               |              |                      | Scombridae - Scomberomorus cavalla        | 49                   | 1.7          | 5.0          |
|        |               |              |                      | Scombridae - Scomberomorus maculatus      | ý                    | 2.0          | 2.9          |
|        |               |              |                      | Scombridae - Thunnus atlanticus           | Ĺ                    | 4.5          | 4.5          |
|        |               |              |                      | Serranidae                                | 9                    | 2.7          | 3.6          |
|        |               |              |                      | Serranidae - Anthias sp.                  | 18                   | 2.3          | 3.3          |
|        |               |              |                      | Serranidae - Diplectrum sp.               | 9                    | 2.2          | 3.7          |
|        |               |              |                      | Stromateidae                              | 22                   | 2.0          | 3.0          |
|        |               |              |                      | Trichiuridae - Diplospinous multistriatus | 4                    | 3.4          | 3.4          |
|        |               |              |                      | Unknown                                   | 102                  | 1.1          | 6.0          |
| 6-05   | II <b>-</b> 7 | 505          | 43                   | Bothidae                                  | 2                    | 4.3          | 5.7          |
| •      | • •           | , - ,        | -                    | Bothidae - Bothus sp.                     | 5                    | 3.4          | 6.0          |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 6-05           | II <b>-</b> 7        | 505                 |                                            | Bothidae - Bothus ocellatus              | 3                                            | 6.6                  | 7.5                  |
|                | ,                    | , - ,               |                                            | Bothidae - Cyclopsetta sp.               | 1                                            | 2.6                  | 2.6                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 24                                           | 2.1                  | 4.4                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 2                                            | 5.6                  | 5.7                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 5                                            | 2.1                  | 4.2                  |
|                |                      |                     |                                            | Carangidae - Caranx sp.                  | <b>7</b> 5                                   | 2.3                  | 5.0                  |
|                |                      |                     |                                            | Carangidae - Selene vomer                | 5                                            | 3.7                  | 4.3                  |
|                |                      |                     |                                            | Chiasmodontidae                          | 2                                            | 6.8                  | 9.3                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 13                                           | 2.9                  | 6.5                  |
|                |                      |                     |                                            | Engraulidae                              | 1                                            | 6.0                  | 6.0                  |
|                |                      |                     |                                            | Exocoetidae                              | 1                                            | 4.3                  | 4.3                  |
|                |                      |                     |                                            | Gobiidae                                 | 15                                           | 3.2                  | 6.7                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.          | 27                                           | 3.0                  | 11.0                 |
|                |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.        | 15                                           | 3.8                  | 11.0                 |
|                |                      |                     |                                            | Lutjanidae                               | 1                                            | 3.5                  | 3.5                  |
|                |                      |                     |                                            | Melamphaidae                             | 1                                            | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 43                                           | 4.0                  | 7.8                  |
|                |                      |                     |                                            | Mullidae                                 | 2                                            | 3.7                  | 4.8                  |
|                |                      |                     |                                            | Muraenidae - Gymnothorax sp.             | 2                                            | 7.5                  | 9.5                  |
|                |                      |                     |                                            | Myctophidae                              | 7                                            | 2.5                  | 3.1                  |
|                |                      |                     |                                            | Myctophidae - Benthosema suborbitale     | 30                                           | 3.4                  | 6.6                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis  | 3                                            | 8.2                  | 11.0                 |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi    | ļ                                            | 4.6                  | 4.6                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 14                                           | 3.6                  | 7.6                  |
|                |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus   | 36                                           | 3.3                  | 8.5                  |
|                |                      |                     |                                            | Myctophidae - Hygophum sp.               | 9                                            | 4.5                  | 7.3                  |
|                |                      |                     |                                            | Myctophidae - Lampanyctus sp.            | 4                                            | 3.3                  | 8.2                  |
|                |                      |                     |                                            | Myctophidae - Myctophum sp.              | 8                                            | 3.2                  | 5.5                  |
|                |                      |                     |                                            | Myctophidae - Notolychnus valdiviae      | 7                                            | 3.6                  | 5.0                  |
|                |                      |                     |                                            | Myctophidae - Notoscopelus sp.           | 1                                            | 3.2                  | 3.2                  |
|                |                      |                     |                                            | Ophichthidae                             | 14                                           | 7.9                  | 9.8                  |

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Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                    | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------|----------------------------------|----------------------|----------------------|
| 6-05        | II <b>-</b> 7        | 333                 |                                            | Myctophidae - Benthosema suborbitale      | 32                               | 3.5                  | 6.0                  |
| 0-07        | 11-1                 | 222                 |                                            | Myctophidae - Ceratoscopelus maderensis   | 7                                | 5.0                  | 13.0                 |
|             |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi     | i                                | 12.0                 | 12.0                 |
|             |                      |                     |                                            | Myctophidae - Diaphus sp.                 | 19                               | 2.7                  | 8.5                  |
|             |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus    | 34                               | 3.2                  | 6.0                  |
|             |                      |                     |                                            | Myctophidae - Hygophum sp.                | 10                               | 3.5                  | 8.2                  |
|             |                      |                     |                                            | Myctophidae - Hygophum reinhardti         | 1                                | 5.0                  | 5.0                  |
|             |                      |                     |                                            | Myctophidae - Lampadena sp.               | <del>-</del>                     | 2.6                  | 4.5                  |
|             |                      |                     |                                            | Myctophidae - Lampanyctus sp.             | 8                                | 2.4                  | 9.9                  |
|             |                      |                     |                                            | Myctophidae - Notolychnus valdiviae       | 13                               | 3.8                  | 8.1                  |
|             |                      |                     |                                            | Myctophidae - Notoscopelus sp.            | 1                                | 4.5                  | 4.5                  |
|             |                      |                     |                                            | Nettastomidae                             | 2                                | 24.0                 | 31.0                 |
|             |                      |                     |                                            | Ophichthidae                              | 1                                | 7.5                  | 7.5                  |
|             |                      |                     |                                            | Ophidiidae                                | 5                                | 6.0                  | 9.5                  |
|             |                      |                     |                                            | Paralepididae                             | 11                               | 3.3                  | 10.0                 |
|             |                      |                     |                                            | Priacanthidae                             | 14                               | 2.6                  | 3.0                  |
|             |                      |                     |                                            | Scombridae                                | 4                                | 2.5                  | 3.0                  |
|             |                      |                     |                                            | Scombridae - Auxis sp.                    | 36                               | 2.6                  | 6.1                  |
|             |                      |                     |                                            | Scombridae - Euthynnus alletteratus       | 16                               | 3.2                  | 4.4                  |
|             |                      |                     |                                            | Scombridae - Katsuwonus pelamis           | 2                                | 5.3                  | 6.1                  |
|             |                      |                     |                                            | Scombridae - Scomberomorus cavalla        | 1                                | 2.3                  | 2.3                  |
|             |                      |                     |                                            | Scombridae - Scomberomorus maculatus      | 1                                | 2.1                  | 2.1                  |
|             |                      |                     |                                            | Scombridae - Thunnus atlanticus           | . 5                              | 6.3                  | 6.7                  |
|             |                      |                     |                                            | Scombridae - Thunnus thynnus              | 1                                | 7.4                  | 7.4                  |
|             |                      |                     |                                            | Serranidae                                | 13                               | 2.0                  | 3.7                  |
|             |                      |                     |                                            | Serranidae - Anthias sp.                  | 1                                | 3.0                  | 3.0                  |
|             |                      |                     |                                            | Serranidae - Diplectrum sp.               | 6                                | 2.5                  | 4.8                  |
|             |                      |                     |                                            | Stromateidae                              | 7                                | 2.3                  | 3.5                  |
|             |                      |                     |                                            | Stromateidae - Cubiceps pauciradiatus     | 6                                | 3.8                  | 8.1                  |
|             |                      |                     |                                            | Trichiuridae - Diplospinous multistriatus | 4                                | 3.6                  | 7.7                  |
|             |                      |                     |                                            | Unknown                                   | 36                               | 1.5                  | 9.0                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                              | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                    | Min.<br>size<br>(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Max.<br>size<br>(mm)                                                                        |
|----------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 6-03           | III1                 | 505                 | 1,945                                      | Bothidae - Bothus ocellatus Bothidae - Syacium sp. Bothidae - Syacium gunteri Carangidae - Chloroscombrus chrysurus Clupeidae - Harcngula jaguana Engraulidae Engraulidae - Anchoa sp. Gerreidae Gobiidae Microdesmidae - Microdesmus sp. Ophichthidae Ophidiidae Serranidae - Diplectrum sp. Serranidae - Serraniculus pumilio Synodontidae - Saurida sp. Tetraodontidae - Sphoeroides sp. Unknown | 11<br>21<br>149<br>21<br>64<br>213<br>223<br>32<br>21<br>53<br>11<br>32<br>74<br>32<br>11<br>21 | 6.96<br>4.591<br>0.896<br>5.37<br>7.77<br>7.75<br>5.82<br>4.26<br>2.55<br>4.26<br>2.55<br>4.26<br>2.55<br>4.26<br>2.55<br>4.26<br>2.55<br>4.26<br>2.55<br>4.26<br>2.55<br>4.26<br>2.55<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26<br>4.26 | 6.9<br>4.2<br>13.5<br>6.3<br>13.0<br>4.0<br>9.0<br>7.0<br>4.5<br>25.7<br>20.0<br>8.5<br>4.5 |
| 6-03           | III-l                | 333                 | 2,955                                      | Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bothidae - Syacium gunteri Bregmacerotidae - Bregmaceros atlanticus Carangidae - Chloroscombrus chrysurus Carangidae - Selene vomer Clupeidae - Harengula jaguana Engraulidae Engraulidae - Anchoa sp.                                                                                                                | 21<br>11<br>11<br>126<br>11<br>53<br>11<br>63<br>179<br>284                                     | 9.0<br>5.6<br>11.0<br>3.8<br>7.1<br>1.7<br>4.3<br>2.5<br>4.6<br>2.4<br>6.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10.0<br>5.6<br>11.0<br>3.8<br>14.0<br>1.7<br>6.2<br>2.5<br>5.0<br>11.0                      |

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|        | -         | Mesh | Number   |                                          | Number     | Min. | Max. |
|--------|-----------|------|----------|------------------------------------------|------------|------|------|
| Date   | Transect- | size | eggs per | _                                        | larvae per | size | size |
| (1976) | station   | (µ)  | 1,000 m3 | Larvae                                   | 1,000 m3   | (mm) | (mm) |
| 6-03   | III-1     | 333  |          | Gerreidae                                | 11         | 3.7  | 3.7  |
|        |           |      |          | Gobiidae                                 | 21         | 2.0  | 8.0  |
|        | •         |      |          | Microdesmidae - Microdesmus sp.          | 42         | 2.3  | 22.0 |
|        |           |      |          | Ophichthidae                             | 11         | 54.0 | 54.0 |
|        |           |      |          | Ophidiidae                               | 32         | 2.7  | 23.0 |
|        |           |      |          | Sciaenidae - <u>Menticirrhus</u> sp.     | 21         | 2.5  | 2.7  |
|        |           |      |          | Serranidae                               | 11         | 13.0 | 13.0 |
|        |           |      |          | Serranidae - <u>Diplectrum</u> sp.       | 42         | 2.2  | 4.0  |
|        |           |      |          | Serranidae - <u>Serraniculus pumilio</u> | 74         | 2.6  | 6.5  |
|        |           |      |          | Synodontidae - <u>Saurida</u> sp.        | 11         | 2.7  | 2.7  |
|        |           |      |          | Tetraodontidae                           | 32         | 2.4  | 2.8  |
|        |           |      |          | Tetraodontidae - Sphoeroides sp.         | 11         | 4.2  | 4.2  |
|        |           |      |          | Triglidae - Prionotus sp.                | 11         | 7.2  | 7.2  |
|        |           |      |          | Unknown                                  | 63         | 3.1  | 8.2  |
| 6-04   | III-2     | 505  | 1,643    | Bothidae                                 | 75         | 3.0  | 10.0 |
|        |           |      |          | Bothidae - Bothus ocellatus              | 17         | 2.5  | 3.8  |
|        |           |      |          | Bothidae - Cyclopsetta sp.               | 6          | 6.7  | 6.7  |
|        |           |      |          | Bothidae - Syacium sp.                   | 201        | 1.4  | 6.3  |
|        |           |      |          | Bothidae - Syacium gunteri               | 6          | 12.0 | 12.0 |
|        |           |      |          | Bregmacerotidae - Bregmaceros atlanticus | 178        | 1.8  | 8.5  |
|        |           |      |          | Carangidae - Caranx sp.                  | 6          | 4.3  | 4.3  |
|        |           |      |          | Cynoglossidae - Symphurus sp             | 40         | 2.5  | 7.0  |
|        |           |      |          | Engraulidae                              | 270        | 3.7  | 7.0  |
|        |           |      |          | Engraulidae - Anchoa sp.                 | 23         | 7.9  | 11.0 |
|        |           |      |          | Gobiidae                                 | 224        | 2.3  | 10.0 |
|        |           |      |          | Lutjanidae                               | , 6        | 3.1  | 3.1  |
|        |           |      |          | Microdesmidae - Microdesmus sp.          | 40         | 4.4  | 14.0 |
|        |           |      |          | Muraenidae - <u>Gymnothorax</u> sp.      | 6          | 17.0 | 17.0 |
|        |           |      |          | Myctophidae - <u>Diaphus</u> sp.         | 46         | 3.6  | 6.4  |
|        |           |      |          | Nettastomidae                            | 57         | 6.0  | 85.0 |

Appendix table 1. (Continued)

| D - 4 -        | m                    | Mesh<br>size | Number                           |                                          | Number<br>larvae per | Min.<br>size | Max.<br>size |
|----------------|----------------------|--------------|----------------------------------|------------------------------------------|----------------------|--------------|--------------|
| Date<br>(1976) | Transect-<br>station | (µ)          | eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm)         | (mm)         |
| (1910)         | 30401011             | <u> </u>     | 1,000 m                          | 102 + 00                                 |                      |              |              |
| 6-04           | III-2                | 505          |                                  | Ophichthidae                             | 29                   | 5.2          | 7.2          |
|                |                      |              |                                  | Ophidiidae                               | 29                   | 3.8          | 5.5          |
|                |                      |              |                                  | Scombridae - Auxis sp.                   | 6                    | 4.1          | 4.1          |
|                |                      |              |                                  | Scombridae - Scomberomorus cavalla       | 12                   | 2.6          | 3.0          |
|                |                      |              |                                  | Serranidae - Anthias sp.                 | 6                    | 3.3          | 3.3          |
|                |                      |              |                                  | Serranidae - Diplectrum sp.              | 12                   | 2.5          | 3.7          |
|                |                      |              |                                  | Stromateidae - Peprilus burti            | 6                    | 5.0          | 5.0          |
|                |                      |              |                                  | Synodontidae                             | 46                   | 2.1          | 6.0          |
|                |                      |              |                                  | Synodontidae - <u>Saurida</u> sp.        | 126                  | 2.5          | 10.0         |
|                |                      |              |                                  | Tetraodontidae                           | 15                   | 2.2          | 2.3          |
|                |                      |              |                                  | Tetraodontidae - Sphoeroides sp.         | 6                    | 5.8          | 5.8          |
|                |                      |              |                                  | Trichiuridae - Trichiurus lepturus       | 17                   | 5.7          | 16.0         |
|                |                      |              |                                  | Triglidae - <u>Prionotus</u> sp.         | 6                    | 9.0          | 9.0          |
|                |                      |              |                                  | Unknown                                  | 46                   | 1.8          | 6.3          |
| 6-04           | III-2                | 333          | 1,745                            | Bothidae                                 | 112                  | 2.1          | 9.5          |
|                |                      |              |                                  | Bothidae - Bothus sp.                    | 18                   | 2.5          | 3.7          |
|                |                      |              |                                  | Bothidae - Bothus ocellatus              | 18                   | 4.2          | 10.0         |
|                |                      |              |                                  | Bothidae - Syacium sp.                   | 195                  | 2.0          | 5.7          |
|                |                      |              |                                  | Bothidae - Syacium gunteri               | 18                   | 6.1          | 10.0         |
|                |                      |              |                                  | Bregmacerotidae - Bregmaceros atlanticus | 296                  | 1.5          | 8.8          |
|                |                      |              |                                  | Congridae                                | 12                   | 8.5          | 8.7          |
|                |                      |              |                                  | Cynoglossidae - Symphurus sp.            | 41                   | 2.7          | 11.0         |
|                |                      |              |                                  | Engraulidae                              | 225                  | 2.9          | 8.0          |
|                |                      |              |                                  | Engraulidae - Anchoa sp.                 | 18                   | 7.5          | 9.2          |
|                |                      |              |                                  | Gobiidae                                 | 467                  | 1.8          | 9.3          |
|                |                      |              |                                  | Microdesmidae - Microdesmus sp.          | 130                  | 2.8          | 15.0         |
|                |                      |              |                                  | Muraenidae - Gymnothorax sp.             | 12                   | 17.0         | 55.0         |
|                |                      |              |                                  | Myctophidae - Diaphus sp.                | 53                   | 3.4          | 9.2          |
|                |                      |              |                                  | Nettastomidae                            | 65                   | 5.3          | 75.0         |
|                |                      |              |                                  | Ophichthidae                             | 59                   | 4.3          | 68.0         |

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 6-04        | III-2                | 333                 |                                            | Ophidiidae                               | 24                               | 3.6                  | 5.8                  |
| • • •       |                      | 223                 |                                            | Scombridae - Auxis sp.                   | 6                                | 4.0                  | 4.0                  |
|             |                      |                     |                                            | Scombridae - Futhynnus alletteratus      | 6                                | 5.5                  | 5.5                  |
|             |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 6                                | 5.9                  | 5.9                  |
|             |                      |                     |                                            | Serranidae - Diplectrum sp.              | 24                               | 1.7                  | 8.0                  |
|             |                      |                     |                                            | Synodontidae - Saurida sp.               | 213                              | 2.8                  | 14.0                 |
|             |                      |                     |                                            | Tetraodontidae - Sphoeroides sp.         | 24                               | 4.0                  | 5.0                  |
|             |                      |                     |                                            | Unknown                                  | 118                              | 1.5                  | 5.3                  |
| 6-05        | III-3                | 505                 | 314                                        | Bothidae                                 | 6                                | 2.8                  | 4.3                  |
| •           | _                    |                     | _                                          | Bothidae - Bothus ocellatus              | 6                                | 4.5                  | 4.6                  |
|             |                      |                     |                                            | Bothidae - Syacium sp.                   | 50                               | 2.0                  | 3.7                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 3                                | 11.0                 | 11.0                 |
|             |                      |                     | •                                          | Bregmacerotidae - Bregmaceros atlanticus | 138                              | 2.3                  | 9.3                  |
|             |                      |                     | Carangidae - Caranx sp.                    |                                          | 13                               | 3.1                  | 4.4                  |
|             |                      |                     |                                            | Carangidae - Trachinotus sp.             | 3                                | 4.5                  | 4.5                  |
|             |                      |                     |                                            | Congridae                                | 3                                | 8.0                  | 8.0                  |
|             |                      |                     |                                            | Engraulidae                              | 38                               | 3.8                  | 8.0                  |
|             |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 3                                | 9.3                  | 9.3                  |
|             |                      |                     |                                            | Gobiidae                                 | 53                               | 2.7                  | 9.0                  |
|             |                      |                     |                                            | Gonostomatidae - Cyclothone sp.          | 3                                | 7.3                  | 7.3                  |
|             |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 28                               | 5.2                  | 8.6                  |
|             |                      |                     |                                            | Myctophidae - Diaphus sp.                | 25                               | 3.8                  | 8.3                  |
|             |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus   | 3                                | 5.0                  | 5.0                  |
|             |                      |                     |                                            | Nettastomidae                            | 53                               | 4.4                  | 49.0                 |
|             |                      |                     |                                            | Ophichthidae                             | 28                               | 4.2                  | 7.6                  |
|             |                      |                     |                                            | Ophidiidae                               | 19                               | 4.6                  | 10.0                 |
|             |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 9                                | 3.1                  | 5.0                  |
|             |                      |                     |                                            | Serranidae                               | 13<br>6                          | 2.2                  | 3.1                  |
|             |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.       | O                                | 3.0                  | 5.7                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
|             |                      |                     |                                |                                          |                                  |                      |                      |
| 6-05        | III-3                | 505                 |                                | Stromateidae                             | 9                                | 3.3                  | 4.3                  |
|             |                      |                     |                                | Synodontidae                             | 3                                | 3.1                  | 3.1                  |
|             |                      |                     |                                | Synodontidae - Saurida sp.               | 50                               | 2.7                  | 5.4                  |
|             |                      |                     |                                | Trichiuridae - Trichiurus lepturus       | 3                                | 4.0                  | 4.0                  |
|             |                      |                     |                                | Unknown                                  | 16                               | 2.7                  | 4.9                  |
| 6-05        | III <b>-</b> 3       | 333                 | 326                            | Bothidae                                 | 26                               | 2.0                  | 3.5                  |
|             |                      |                     |                                | Bothidae - Bothus ocellatus              | 23                               | 2.5                  | 7.0                  |
|             |                      |                     |                                | Bothidae - Cyclopsetta sp.               | 6                                | 2.8                  | 3.7                  |
|             |                      |                     |                                | Bothidae - Syacium sp.                   | 58                               | 1.8                  | 4.0                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.        | 3                                | 5.4                  | 5.4                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 310                              | 1.5                  | 8.6                  |
|             |                      |                     |                                | Carangidae - Caranx sp.                  | 13                               | 3.4                  | 4.3                  |
|             |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 10                               | 2.2                  | 3.5                  |
|             |                      |                     |                                | Engraulidae                              | 61                               | 3.6                  | 7.8                  |
|             |                      |                     |                                | Gempylidae                               | 3                                | 4.3                  | 4.3                  |
|             |                      |                     |                                | Gobiidae                                 | 97                               | 2.0                  | 9.0                  |
|             |                      |                     |                                | Gonostomatidae - Cyclothone sp.          | 6                                | 4.5                  | 5.5                  |
|             |                      |                     |                                | Lutjanidae                               | 3                                | 2.7                  | 2.7                  |
|             |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 29                               | 5.1                  | 9.0                  |
|             |                      |                     | •                              | Myctophidae - Diaphus sp.                | 48                               | 3.8                  | 8.3                  |
|             |                      |                     |                                | Myctophidae - Diogenichthys atlanticus   | 6                                | 3.8                  | 4.4                  |
|             |                      |                     |                                | Myctophidae - Lampanyctus sp.            | 3                                | 2.9                  | 2.9                  |
|             |                      |                     |                                | Nettastomidae                            | 16                               | 5.8                  | 11.0                 |
|             |                      |                     |                                | Ophichthidae                             | 81                               | 4.5                  | 10.0                 |
|             |                      |                     |                                | Ophidiidae                               | 13                               | 2.0                  | 6.0                  |
|             |                      |                     |                                | Scombridae - Auxis sp.                   | 6                                | 4.8                  | 5.5                  |
|             |                      |                     |                                | Scombridae - Euthynnus alletteratus      | . 3                              | 4.0                  | 4.0                  |
|             |                      |                     |                                | Scombridae - Scomberomorus cavalla       | 3                                | 3.5                  | 3.5                  |
|             |                      |                     |                                | Serranidae                               | 13                               | 2.0                  | 2.4                  |
|             |                      |                     |                                | Serranidae - Diplectrum sp.              | 13                               | 1.9                  | 3.5                  |

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Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                        | Number<br>larvae per<br>1,000 m3                                            | Min.<br>size<br>(mm)                                                | Max.<br>size<br>(mm)                                                     |
|-------------|----------------------|---------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------|
| 6-05        | III-3                | 333                 |                                | Stromateidae Synodontidae - <u>Saurida</u> sp. Synodontidae - <u>Synodus</u> sp. Tetraodontidae                                                                                                                                                                                                                                                                               | 3<br>110<br>10<br>3                                                         | 4.2<br>2.2<br>3.1<br>4.0                                            | 4.2<br>5.3<br>3.5<br>4.0                                                 |
|             |                      |                     |                                | Trichiuridae - <u>Trichiurus</u> <u>lepturus</u><br>Unknown                                                                                                                                                                                                                                                                                                                   | 13<br>65                                                                    | 4.7<br>1.5                                                          | 5.5<br>4.0                                                               |
| 5-30        | IV-1                 | 505                 | 3,726                          | Bothidae  Carangidae - Caranx sp.  Carangidae - Chloroscombrus chrysurus  Clupeidae - Harengula jaguana  Engraulidae  Engraulidae - Anchoa sp.  Exocoetidae  Microdesmidae - Microdesmus sp.  Mullidae  Sciaenidae - Menticirrhus sp.  Scombridae - Auxis sp.  Serranidae - Serraniculus pumilio  Sphyraenidae - Sphyraena sp.  Syngnathidae - Syngnathus louisianae  Unknown | 14<br>14<br>14<br>27<br>14<br>14<br>55<br>14<br>123<br>14<br>27<br>27<br>14 | 5.5<br>5.4<br>9.2<br>7.3<br>7.6<br>2.7<br>3.0<br>2.3<br>12.0<br>3.1 | 5.5<br>5.2<br>4.4<br>9.0<br>9.3<br>7.5<br>4.3<br>4.0<br>3.5<br>0<br>17.0 |
| 5-30        | IV-1                 | 333                 | 5,468                          | Bothidae Carangidae Cynoglossidae - Symphurus sp. Engraulidae Sciaenidae - Menticirrhus sp. Serranidae Serranidae - Serraniculus pumilio Synodontidae - Saurida sp.                                                                                                                                                                                                           | 36<br>12<br>12<br>12<br>24<br>12<br>12                                      | 7.0<br>2.1<br>13.0<br>12.0<br>2.1<br>2.7<br>7.3<br>11.0             | 9.0<br>2.1<br>13.0<br>12.0<br>2.6<br>2.7<br>7.3<br>11.0                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 5-30        | IV-1                 | 333                 |                                | Tetraodontidae                           | 12                               | 4.0                  | 4.0                  |
| J=30        | T A -T               | 222                 |                                | Triglidae - Prionotus sp.                | 12                               | 5.8                  | 5.8                  |
|             |                      |                     |                                | Unknown                                  | 144                              | 5.0                  | 8.2                  |
| 5-30        | IV-2                 | 505                 | 703                            | Bothidae                                 | 161                              | 2.7                  | 9.3                  |
| , ,         |                      |                     | • -                            | Bothidae - Bothus ocellatus              | 22                               | 3.7                  | 7.0                  |
|             |                      |                     |                                | Bothidae - Syacium sp.                   | 81                               | 2.4                  | 4.2                  |
|             |                      | •                   |                                | Bothidae - Syacium gunteri               | 11                               | 5.6                  | 11.0                 |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 338                              | 2.3                  | 30.0                 |
|             |                      |                     |                                | Congridae                                | . 5                              | 8.5                  | 8.5                  |
|             |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 48                               | 3.0                  | 11.0                 |
|             |                      |                     |                                | Engraulidae                              | 225                              | 3.6                  | 9.5                  |
|             |                      |                     |                                | Engraulidae - Anchoa sp.                 | 32                               | 10.0                 | 17.0                 |
|             |                      |                     |                                | Engraulidae - Engraulis eurystole        | 27                               | 9.5                  | 17.0                 |
|             |                      |                     |                                | Gempylidae                               | 5                                | 8.7                  | 8.7                  |
|             |                      |                     |                                | Gobiidae                                 | 467                              | 3.1                  | 9.7                  |
|             |                      |                     |                                | Gonostomatidae - Cyclothone sp.          | .5<br>-\                         | 15.0                 | 15.0                 |
|             |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 54                               | 3.8                  | 14.0                 |
|             |                      |                     |                                | Mullidae                                 | 11                               | 3.7                  | 5.3                  |
|             |                      |                     |                                | Myctophidae                              | 5                                | 6.0                  | 6.0                  |
|             |                      |                     |                                | Myctophidae - <u>Diaphus</u> sp.         | 59                               | 3.4                  | 7.6                  |
|             |                      |                     |                                | Nettastomidae                            | 5                                | 6.0                  | 6.0                  |
|             |                      |                     |                                | Ophichthidae                             | 16                               | 8.0                  | 10.0                 |
|             |                      |                     |                                | Ophidiidae                               | 16                               | 5.7                  | 9.5                  |
|             |                      |                     |                                | Paralepididae                            | 11                               | 7.0                  | 9.0                  |
|             |                      |                     |                                | Scombridae                               | 16                               | 3.2                  | 4.0                  |
|             |                      |                     |                                | Scombridae - Thunnus thynnus             | 5                                | 6.4                  | 6.4                  |
|             |                      |                     |                                | Serranidae                               | 5                                | 2.0<br>6.5           | 2.0<br>6.5           |
|             |                      |                     |                                | Serranidae - Diplectrum sp.              | 5                                |                      | 5.7                  |
|             |                      |                     |                                | Stromateidae - Cubiceps pauciradiatus    | 5                                | 5.7<br>2.8           | 14.0                 |
|             |                      |                     |                                | Synodontidae - Saurida sp.               | 156                              | 2.0                  | 14.0                 |

| Date<br>(1976)    | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 5-30              | IV-2                 | 505                 | 7                              | Synodontidae - Synodus sp.               | 48                                           | 4.3                  | 7.2                  |
| ) <del>-</del> 30 | 1 V C                | ,0)                 |                                | Tetraodontidae                           | 11                                           | 2.1                  | 3.8                  |
|                   |                      |                     |                                | Triglidae - Prionotus sp.                | 16                                           | 3.2                  | 4.4                  |
|                   |                      |                     |                                | Unknown                                  | 59                                           | 2.3                  | 6.0                  |
| 5-30              | IV-2                 | 333                 | 649                            | Bothidae                                 | 144                                          | 2.7                  | 9.0                  |
| , -               |                      |                     | •                              | Bothidae - Bothus sp.                    | 16                                           | 3.8                  | 5.8                  |
|                   |                      |                     |                                | Bothidae - Syacium sp.                   | 112                                          | 1.8                  | 5.0                  |
|                   |                      |                     |                                | Bothidae - Syacium gunteri               | 5                                            | 10.0                 | 10.0                 |
|                   |                      |                     |                                | Branchiostegidae - Caulolatilus sp.      | 5                                            | 4.4                  | 4.4                  |
|                   |                      | •                   |                                | Bregmacerotidae - Bregmaceros sp.        | 5                                            | 3.5                  | 3.5                  |
|                   |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 404                                          | 1.7                  | 21.0                 |
|                   |                      |                     |                                | Carangidae - Caranx sp.                  | 5                                            | 3.2                  | 3.2                  |
|                   |                      |                     |                                | Congridae                                | 5                                            | 6.0                  | 6.0                  |
|                   |                      |                     |                                | Cynoglossidae - Symphurus sp.            | <b>9</b> 0                                   | 2.6                  | 7.5                  |
|                   |                      |                     |                                | Engraulidae                              | 112                                          | 3.5                  | 9.1                  |
|                   |                      |                     |                                | Engraulidae - Anchoa sp.                 | 43                                           | 7.4                  | 15.0                 |
|                   |                      |                     |                                | Engraulidae - Engraulis eurystole        | 53                                           | 8.0                  | 16.0                 |
|                   |                      |                     |                                | Gobiidae                                 | 532                                          | 2.9                  | 9.2                  |
|                   |                      |                     |                                | Gonostomatidae - Cyclothone sp.          | 5                                            | 6.5                  | 6.5                  |
|                   |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 53                                           | 5.6                  | 18.0                 |
|                   |                      |                     |                                | Mullidae                                 | 11                                           | 3.4                  | 3.8                  |
|                   |                      |                     |                                | Myctophidae - Diaphus sp.                | 48                                           | 3.3                  | 4.5                  |
|                   |                      |                     |                                | Ophichthidae                             | 27                                           | 9.7                  | 49.0                 |
|                   |                      |                     |                                | Ophidiidae                               | 48                                           | 2.9                  | 16.0                 |
|                   |                      |                     |                                | Scombridae - Auxis sp.                   | 5                                            | 3.5                  | 3.5                  |
|                   |                      |                     |                                | Scombridae - Scomberomorus cavalla       | 5                                            | 7.5                  | 7.5                  |
|                   |                      |                     |                                | Serranidae                               | 21                                           | 1.9                  | 3.9                  |
|                   |                      |                     |                                | Serranidae - Anthias tenuis              | 11                                           | 3.3                  | 6.7                  |
|                   |                      |                     |                                | Serranidae - Diplectrum sp.              | 11                                           | 8.7                  | 11.0                 |
|                   |                      |                     |                                | Synodontidae - Saurida sp.               | 133                                          | 3.0                  | 20.0                 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 5-30           | IV-2                 | 333                 |                                            | Synodontidae - Synodus sp.               | 53                                           | 3.0                  | 15.0                 |
|                |                      |                     |                                            | Tetraodontidae                           | 27                                           | 2.3                  | 3.9                  |
|                |                      |                     |                                            | Triglidae - <u>Prionotus</u> sp.         | 1.1                                          | 4.7                  | 6.8                  |
|                |                      |                     |                                            | Unknown                                  | 53                                           | 2.5                  | 7.3                  |
| 5–30           | IV-3                 | 505                 | 3)10                                       | Antennariidae                            | 3                                            | 3.2                  | 3.2                  |
| , 50           | 3                    | ,-,                 | 3                                          | Bothidae                                 | 25                                           | 3.8                  | 8.8                  |
|                |                      |                     |                                            | Bothidae - Bothus sp.                    | 9                                            | 4.2                  | 11.0                 |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 3<br>3                                       | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Branchiostegidae - Caulolatilus sp.      | 3                                            | 7.0                  | 7.0                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 3                                            | 7.0                  | 7.0                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 176                                          | 3.0                  | 8.2                  |
|                |                      |                     |                                            | Carangidae - Caranx sp.                  | 34                                           | 3.2                  | 5.0                  |
|                |                      |                     |                                            | Clupeidae - <u>Harengula jaguana</u>     | 3                                            | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Congridae                                | . 31                                         | 7.4                  | 101.0                |
|                |                      |                     |                                            | Cynoglossidae - <u>Symphurus</u> sp.     | , 3                                          | 4.4                  | 4.4                  |
|                |                      |                     |                                            | Engraulidae                              | 40                                           | 5.0                  | 20.0                 |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 37                                           | 8.8                  | 19.0                 |
|                |                      |                     |                                            | Exocoetidae                              | 3                                            | 12.0                 | 12.0                 |
|                |                      |                     |                                            | Gobiidae                                 | 83                                           | 2.3                  | 8.0                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.          | 65                                           | 4.0                  | 10.0                 |
|                |                      |                     |                                            | Gonostomatidae - Diplophos sp.           | 3                                            | 17.0                 | 17.0                 |
|                |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.        | 22                                           | 5.5<br>2.4           | 10.0                 |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 96<br>30                                     | 3.4                  | 17.0<br>9.8          |
|                |                      |                     |                                            | Mullidae                                 | 19                                           | 3.4                  | 3.5                  |
|                |                      |                     |                                            | Myctophidae                              | 19<br>3                                      | 8.5                  | 8.5                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis  | 3<br>15                                      | 4.7                  | 6.0                  |
|                | -                    |                     |                                            | Myctophidae - Ceratoscopelus warmingi    | 86                                           | 2.7                  | 12.0                 |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 3                                            | 4.6                  | 4.6                  |
|                |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus   | 710<br>2                                     | 4.1                  | 8.2                  |
|                |                      |                     |                                            | Myctophidae - Hygophum sp.               | 40                                           | 4.1                  | 0.2                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                           | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|--------------------------------------------------|----------------------------------|----------------------|----------------------|
| 5 <b>-</b> 30  | IV-3                 | 505                 |                                | Myctophidae - Hygophum reinhardti                | 71                               | 4.14                 | <del></del>          |
| / 50           | 1V-5                 |                     |                                | Myctophidae - Lampadena sp.                      | 6                                | 3.8                  | 10.0                 |
|                |                      |                     |                                | Myctophidae - Lampanyctus sp.                    | 9                                | 4.0                  | 3.8                  |
|                |                      |                     |                                | Myctophidae - Myctophum sp.                      | 12                               | 3.0                  | 5.0<br>4.5           |
|                |                      |                     |                                | Nettastomidae                                    | 22                               | 4.9                  | 69.0                 |
|                |                      |                     |                                | Ophidiidae                                       | 12                               | 5.0                  | 8.0                  |
|                |                      |                     |                                | Paralepididae                                    | 37                               |                      | 24.0                 |
|                |                      |                     |                                | Paralepididae - Lestidiops sp.                   |                                  | 3.3                  |                      |
|                |                      |                     |                                | Scaridae                                         | 3<br>3                           | 12.0<br>8.8          | 12.0<br>8.8          |
|                |                      |                     |                                | Scombridae                                       | 25                               | 2.8                  | 4.6                  |
|                |                      |                     |                                | Scombridae - Auxis sp.                           | 65                               | 2.6                  | 8.6                  |
|                |                      |                     |                                | Scombridae - Thunnus thynnus                     | 28                               | 4.6                  | 5.5                  |
|                |                      |                     |                                | Serranidae                                       | 15                               | 2.6                  | 4.1                  |
|                |                      |                     |                                | Serranidae - Diplectrum sp.                      | 12                               | 4.7                  | 6.5                  |
|                |                      |                     |                                | Serranidae - Liopropoma sp.                      | 3                                | 10.0                 | 10.0                 |
|                |                      |                     |                                | Stromateidae - Cubiceps pauciradiatus            | 22                               | 2.8                  | 6.2                  |
|                |                      |                     |                                | Tetraodontidae                                   | 9                                | 1.8                  | 3.1                  |
|                |                      |                     |                                | Trichiuridae - <u>Diplospinous multistriatus</u> | 12                               | 4.0                  | 5.1                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                        | 3                                | 4.2                  | 4.2                  |
|                |                      |                     |                                | Unknown                                          | 80                               | 1.8                  | 6.0                  |
|                |                      |                     |                                | CIMITO #11                                       | 00                               | 1.0                  | 0.0                  |
| 5-30           | IV-3                 | 333                 | 278                            | Antennariidae                                    | 6 .                              | 1.7                  | 3.0                  |
|                |                      |                     |                                | Bothidae                                         | 50                               | 4.5                  | 8.7                  |
|                |                      |                     |                                | Bothidae - Bothus sp.                            | 3                                | 5.3                  | 5.3                  |
|                |                      |                     |                                | Bothidae - Syacium sp.                           | 12                               | 3.7                  | 4.4                  |
|                |                      |                     |                                | Bothidae - Syacium gunteri                       | 6                                | 7.8                  | 10.0                 |
|                |                      |                     |                                | Branchiostegidae - Caulolatilus sp.              | 6                                | 4.8                  | 5.0                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.                | 3                                | 7.8                  | 7.8                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus         | 127                              | 3.0                  | 34.0                 |
| ·              |                      |                     |                                | Carangidae - Caranx sp.                          | 30                               | 2.8                  | 5.0                  |
|                |                      |                     |                                | Congridae                                        | 30                               | 5.0                  | 98.0                 |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                               | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|------------------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 5-30        | IV-3                 | 333                 |                                | Sparidae<br>Stromateidae - Cubiceps pauciradiatus    | 3<br>21                                      | 18.0<br>3.0          | 18.0<br>5.2          |
|             |                      |                     |                                | Synodontidae - Saurida sp.                           | 6                                            | 10.0                 | 13.0                 |
|             |                      |                     |                                | Tetraodontidae                                       | 6                                            | 3.4                  | 3.6                  |
|             |                      |                     |                                | Trichiuridae - Diplospinous multistriatus            | 6                                            | 3.7                  | 5.2                  |
|             |                      |                     |                                | Triglidae - Prionotus sp.                            | 3                                            | 3.0                  | 3.0                  |
|             |                      |                     |                                | Unknown                                              | 24                                           | 2.2                  | 9.8                  |
|             |                      |                     | - 1                            |                                                      |                                              |                      |                      |
| 7-10        | II-1                 | 505                 | 384                            | Bothidae                                             | 12                                           | 6.5                  | 6.5                  |
|             |                      |                     |                                | Bothidae - Bothus ocellatus                          | 12                                           | 6.8                  | 6.8                  |
|             |                      |                     |                                | Bothidae - Syacium sp.                               | 12                                           | 5.4                  | 5.4                  |
|             |                      |                     |                                | Bothidae - Syacium gunteri                           | 12                                           | 7.4                  | 7.4                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus             | 12                                           | 2.4                  | 2.4                  |
|             |                      |                     |                                | Carangidae - Chloroscombrus chrysurus                | 74                                           | 2.0                  | 4.0                  |
|             |                      |                     |                                | Clupeidae - <u>Harengula jaguana</u>                 | 12                                           | 4.7                  | 4.7                  |
|             |                      |                     |                                | Engraulidae                                          | 842                                          | 2.3                  | 9.1                  |
|             |                      |                     |                                | Engraulidae - Anchoa sp.                             | 12                                           | 14.0                 | 14.0                 |
|             |                      |                     |                                | Gobiidae                                             | 111<br>136                                   | 2.6                  | 7.7                  |
|             |                      |                     |                                | Sciaenidae - Cynoscion sp.                           | 87                                           | 2.5<br>2.6           | 3.9                  |
|             |                      |                     |                                | Sciaenidae - Menticirrhus sp.                        | •                                            | 3.3                  | 3.5<br>3.4           |
|             |                      |                     |                                | Scombridae - Scomberomorus maculatus                 | 25<br><b>37</b>                              | 3.3<br>4.3           |                      |
|             |                      |                     | *                              | Trichiuridae - <u>Trichiurus lepturus</u><br>Unknown | 31<br>12                                     | 2.9                  | 5.2<br>2.9           |
|             |                      |                     |                                | Unknown                                              | , <u>T</u> E                                 | 2.9                  | 2.7                  |
| 7-10        | II-1                 | 333                 | 756                            | Bothidae                                             | 13                                           | 6.4                  | 6.4                  |
|             |                      |                     |                                | Bothidae - Syacium sp.                               | 38                                           | 1.5                  | 2.0                  |
|             |                      |                     |                                | Bothidae - Syacium gunteri                           | 25                                           | 4.9                  | 4.9                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus             | 13                                           | 1.8                  | 1.8                  |
|             |                      | -                   |                                | Carangidae - Chloroscombrus chrysurus                | 176                                          | 1.9                  | 4.1                  |
|             |                      |                     |                                | Clupeidae - Harengula jaguana                        | 25                                           | 8.1                  | 8.8                  |
|             |                      |                     |                                | Cynoglossidae - Symphurus sp.                        | 63                                           | 1.2                  | 2.3                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                     | Number<br>larvae per<br>1,000 m <sup>3</sup>                       | Min.<br>size<br>(mm)                                                                                    | Max.<br>size<br>(mm)                                                               |
|----------------|----------------------|---------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 7-10           | II-l                 | 333                 |                                | Engraulidae Engraulidae - Anchoa sp. Engraulidae - Engraulis eurystole Gobiidae Grammistidae - Rypticus saponaceus Microdesmidae - Microdesmus sp. Ophidiidae Sciaenidae - Cynoscion sp. Sciaenidae - Menticirrhus sp. Scombridae - Scomberomorus maculatus Serranidae - Serraniculus pumilio Sphyraenidae - Sphyraena sp. Stromateidae - Peprilus alepidotus Synodontidae - Synodus sp. Triglidae - Prionotus sp. Unknown | 1,788 101 38 164 13 38 13 227 139 38 25 13 13 13 13                | 2.0<br>6.9<br>7.0<br>2.8<br>7.2<br>2.2<br>14.0<br>1.4<br>2.1<br>2.0<br>2.7<br>4.6<br>2.2<br>12.0<br>5.0 | 6.2<br>9.5<br>8.0<br>7.2<br>14.0<br>5.6<br>3.7<br>3.3<br>4.2<br>12.0<br>5.0<br>5.0 |
| 7-10           | II-2                 | 505                 | 1,328                          | Bothidae - Bothus ocellatus Bothidae - Syacium sp. Bothidae - Syacium gunteri Bregmacerotidae - Bregmaceros atlanticus Clupeidae Clupeidae - Harengula jaguana Engraulidae Engraulidae - Anchoa sp. Gobiidae Gonostomatidae - Cyclothone sp. Lutjanidae Microdesmidae - Microdesmus sp. Mugilidae - Mugil sp.                                                                                                              | 48<br>19<br>103<br>22<br>107<br>48<br>48<br>631<br>111<br>137<br>4 | 2.0<br>3.7<br>1.8<br>5.6<br>1.7<br>7.3<br>26.7<br>1.8<br>4.2<br>4.1<br>3.0<br>3.3                       | 6.2<br>6.5<br>5.8<br>7.8<br>3.3<br>7.0<br>11.0<br>14.0<br>7.2<br>4.8<br>8.5<br>3.3 |

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Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                          | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------|----------------------------------|----------------------|----------------------|
| 7-10           | II-2                 | 505                 |                                            | Ophichthidae                                    | 4                                | 9.2                  | 9.2                  |
|                |                      |                     |                                            | Ophidiidae                                      | 37                               | 4.2                  | 7.8                  |
|                |                      |                     |                                            | Scombridae                                      | 26                               | 2.2                  | 4.5                  |
|                |                      |                     | •                                          | Scombridae - Auxis sp.                          | 22                               | 2.8                  | 8.8                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus             | 22                               | 5.0                  | 5.6                  |
|                |                      |                     | ٠                                          | Scombridae - Scomberomorus cavalla              | 81                               | 2.8                  | 6.1                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus maculatus            | 4                                | 3.0                  | 3.0                  |
|                |                      |                     |                                            | Scombridae - Thunnus sp.                        | 14                               | 4.2                  | 4.2                  |
|                |                      |                     |                                            | Serranidae                                      | 14                               | 2.9                  | 2.9                  |
|                |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.              | 15                               | 3.2                  | 3.7                  |
|                |                      |                     |                                            | Serranidae - <u>Serraniculus</u> <u>pumilio</u> | 37                               | 2.0                  | 4.8                  |
|                |                      |                     |                                            | Soleidae - <u>Gymnachirus</u> sp.               | 14                               | 5.1                  | 5.1                  |
|                |                      |                     | •                                          | Synodontidae - Saurida sp.                      | 33                               | 2.5                  | 3.8                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.                      | 4                                | 11.0                 | 11.0                 |
|                |                      |                     |                                            | Trichiuridae - Trichiurus lepturus              | 7                                | 5.0                  | 5.3                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                       | 4                                | 4.3                  | 4.3                  |
|                | ·                    |                     |                                            | Unknown                                         | 85                               | 2.0                  | 6.3                  |
| 7-10           | II-2                 | 333                 | 1,400                                      | Bothidae                                        | 82                               | 1.5                  | 3.4                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus                     | 54                               | 2.1                  | 9.7                  |
|                |                      |                     |                                            | Bothidae - Cyclopsetta sp.                      | 16                               | 2.7                  | 7.6                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                          | 373                              | 1.5                  | 5.6                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri                      | 23                               | 5.1                  | 7.0                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus        | 331                              | 1.7                  | 4.3                  |
|                |                      |                     |                                            | Carangidae - Caranx sp.                         | 12                               | 2.3                  | 3.8                  |
|                |                      |                     |                                            | Carangidae - Selene vomer                       | 39                               | 1.9                  | 2.4                  |
|                |                      |                     |                                            | Clupeidae                                       | 12                               | 3.1                  | 4.2                  |
|                |                      |                     |                                            | Clupeidae - Harengula jaguana                   | 62<br>35                         | 6.5                  | 9.0                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.                   | 35                               | 1.4                  | 3.6                  |
|                |                      |                     |                                            | Engraulidae                                     | 2,278                            | 2.3                  | 7.2                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                        | 19                               | 6.6                  | 9.9                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                               | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|--------------------------------------|----------------------------------------------|----------------------|----------------------|
| 7-10        | II <b>-</b> 2        | 333                 |                                | Engraulidae - Engraulis eurystole    | 62                                           | 6.9                  | 16.0                 |
| 1-10        | 11                   | 222                 |                                | Gerreidae                            | 16                                           | 3.1                  | 4.3                  |
|             |                      |                     |                                | Gobiidae                             | 350                                          | 1.8                  | 6.8                  |
|             |                      |                     |                                | Grammistidae - Rypticus saponaceus   | 8                                            | 3.2                  | 4.1                  |
|             |                      |                     |                                | Lutjanidae                           | 8                                            | 3.5                  | 5.2                  |
|             |                      |                     |                                | Microdesmidae - Microdesmus sp.      | 140                                          | 1.6                  | 3.9                  |
|             |                      |                     |                                | Mullidae                             | 14                                           | 3.3                  | 3.3                  |
|             |                      |                     |                                | Ophidiidae                           | 43                                           | 3.9                  | 10.0                 |
|             |                      |                     |                                | Sciaenidae - Menticirrhus sp.        | 12                                           | 3.0                  | 3.5                  |
|             |                      |                     |                                | Scombridae                           | 39                                           | 2.4                  | 3.5                  |
|             |                      |                     |                                | Scombridae - Auxis sp.               | 23                                           | 2.6                  | 6.6                  |
|             |                      |                     |                                | Scombridae - Euthynnus alletteratus  | 54                                           | 3.6                  | 6.0                  |
|             |                      |                     |                                | Scombridae - Scomberomorus cavalla   | 93                                           | 2.2                  | 5.7                  |
|             |                      |                     |                                | Scombridae - Scomberomorus maculatus | 4                                            | 2.7                  | 2.7                  |
|             |                      |                     |                                | Serranidae - Diplectrum sp.          | 39                                           | 2.1                  | 3.5                  |
|             |                      |                     |                                | Serranidae - Serraniculus pumilio    | 12                                           | 2.2                  | 3.0                  |
|             |                      |                     |                                | Sphyraenidae - Sphyraena sp.         | 27                                           | 2.2                  | 3.9                  |
|             |                      |                     |                                | Synodontidae - Saurida sp.           | 132                                          | 2.5                  | 3.6                  |
|             |                      |                     |                                | Synodontidae - Synodus sp.           | 16                                           | 3.6                  | 5.2                  |
|             |                      |                     |                                | Tetraodontidae                       | 8                                            | 1.9                  | 2.5                  |
|             |                      |                     | * 1                            | Trichiuridae - Trichiurus lepturus   | 14                                           | 4.4                  | 4.4                  |
|             |                      |                     |                                | Triglidae - Prionotus sp.            | 4                                            | 2.9                  | 2.9                  |
|             |                      |                     |                                | Unknown                              | 132                                          | 1.4                  | 5.5                  |
| 7-10        | II-3                 | 505                 | 125                            | Antennariidae                        | 5                                            | 2.6                  | 2.6                  |
| 1-10        | 11-3                 | , , , ,             | 10                             | Bothidae                             | 29                                           | 2.5                  | 6.1                  |
|             |                      |                     |                                | Bothidae - Bothus sp.                | 5                                            | 4.9                  | 5.3                  |
|             |                      |                     |                                | Bothidae - Bothus ocellatus          | 7                                            | 3.6                  | 10.0                 |
|             | -                    |                     |                                | Bothidae - Cyclopsetta sp.           | 5                                            | 2.5                  | 8.2                  |
| 2.41        |                      | •                   |                                | Bothidae - Syacium sp.               | 178                                          | 1.6                  | 5.6                  |
| . *         |                      |                     |                                | Bothidae - Syacium gunteri           | 5                                            | 6.6                  | 8.0                  |

Appendix table 1. (Continued)

| Date (1976) | Transect- | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|-----------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
|             | TT 2      | E05                 |                                | Bregmacerotidae - Bregmaceros atlanticus | 609                              | 1.5                  | 19.0                 |
| 7-10        | II-3      | 505                 |                                | Carangidae - Caranx sp.                  | 7                                | 3.0                  | 4.8                  |
|             |           |                     |                                | Cynoglossidae - Symphurus sp.            | 14                               | 2.4                  | 12.0                 |
|             |           |                     |                                | · -                                      | 4 <b>7</b> 5                     | 3.6                  | 9.7                  |
|             |           |                     |                                | Engraulidae - Anchoa sp.                 | 5                                | 8.6                  | 8.7                  |
|             |           |                     |                                | Engraulidae - Engraulis eurystole        | 122                              | 7.6                  | 18.0                 |
|             |           |                     |                                | Gobiidae Engrautis euryscote             | 233                              | 1.5                  | 7.5                  |
|             |           |                     |                                | Gonostomatidae - Cyclothone sp.          | 17                               | 3.7                  | 6.0                  |
|             |           |                     |                                | Microdesmidae - Microdesmus sp.          | 22                               | 8.8                  | 20.0                 |
|             |           |                     |                                | Muraenidae - Gymnothorax sp.             | 2                                | 21.0                 | 21.0                 |
|             |           |                     |                                | Myctophidae - Ceratoscopelus maderensis  | 5                                | 10.0                 | 12.0                 |
|             |           |                     |                                | Myctophidae - Diaphus sp.                | 65                               | 2.1                  | 4.5                  |
|             |           |                     |                                | Myctophidae - Myctophum sp.              | 2                                | 3.4                  | 3.4                  |
|             |           |                     |                                | Nettastomidae                            | 5                                | 5.7                  | 10.0                 |
|             |           |                     |                                | Ophichthidae                             | 7                                | 4.5                  | 8.8                  |
|             |           |                     |                                | Ophidiidae                               | 12                               | 4.2                  | 10.0                 |
|             |           |                     |                                | Paralepididae                            | 34                               | 3.9                  | 9.2                  |
|             |           |                     |                                | Priacanthidae                            | 2                                | 4.0                  | 4.0                  |
|             |           |                     |                                | Scombridae - Euthynnus alletteratus      | 7                                | 4.3                  | 6.1                  |
|             |           |                     |                                | Scombridae - Scomberomorus cavalla       | 2                                | 4.7                  | 4.7                  |
| ,           |           |                     | •                              | Scombridae - Thunnus atlanticus          | 2                                | 5.5                  | 5.5                  |
|             |           |                     |                                | Serranidae                               | 5                                | 2.9                  | 4.0                  |
|             | •         |                     |                                | Synodontidae                             | 14                               | 2.2                  | 8.5                  |
|             |           |                     |                                | Synodontidae - Saurida sp.               | 225                              | 1.8                  | 23.0                 |
|             |           |                     |                                | Trichiuridae - Trichiurus lepturus       | 2                                | 4.9                  | 4.9                  |
|             |           | •                   |                                | Unknown                                  | 55                               | 2.2                  | 7.0                  |
| 7-10        | II-3      | 333                 | 184                            | Antennariidae                            | 13                               | 2.2                  | 3.3                  |
| , 20        | <b></b> J | 233                 | <del></del>                    | Balistidae - Balistes sp.                | 3                                | 4.5                  | 4.5                  |
|             |           |                     |                                | Bothidae                                 | 23                               | 2.0                  | 5.2                  |
|             |           |                     |                                | Bothidae - Bothus sp.                    | 8                                | 4.8                  | 6.0                  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 7-10           | II-3                 | 333                 |                                            | Bothidae - Bothus ocellatus              | 38                                           | 1.7                  | 7.0                  |
| 1-20           | 11-0                 | 223                 |                                            | Bothidae - Syacium sp.                   | 381                                          | 1.3                  | 5.1                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri               | 10                                           | 5.4                  | 7.1                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 3                                            | 2.6                  | 2.6                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 943                                          | 1.6                  | 18.0                 |
|                |                      |                     |                                            | Carangidae - Decapterus punctatus        | 5                                            | 2.5                  | 5.8                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 26                                           | 2.5                  | 8.2                  |
|                |                      |                     |                                            | Engraulidae                              | 726                                          | 2.1                  | 7.3                  |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 205                                          | 7.0                  | 16.0                 |
|                |                      |                     |                                            | Gerreidae                                | 3                                            | 9.4                  | 9.4                  |
|                |                      |                     |                                            | Gobiidae                                 | 429                                          | 2.1                  | 7.4                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.          | 64                                           | 2.5                  | 8.0                  |
|                |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.        | 18                                           | 7.5                  | 15.0                 |
|                |                      |                     |                                            | Lutjanidae                               | 10                                           | 3.1                  | 3.5                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 61                                           | 1.8                  | 17.0                 |
|                |                      |                     |                                            | Muraenidae - Gymnothorax sp.             | <sub>.</sub> 5                               | 8.5                  | 22.0                 |
|                |                      |                     |                                            | Myctophidae                              | 49                                           | 1.8                  | 3.5                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis  | 20                                           | 2.3                  | 13.0                 |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 159                                          | 2.4                  | 8.3                  |
|                |                      |                     |                                            | Myctophidae - Hygophum sp.               | 3                                            | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Myctophidae - Lampadena sp.              | 3                                            | 4.2                  | 4.2                  |
|                |                      |                     |                                            | Myctophidae - Lampanyctus sp.            | 3                                            | 3.1                  | 3.1                  |
|                |                      |                     |                                            | Nettastomidae                            | 5                                            | 5.2                  | 16.0                 |
|                | •                    |                     |                                            | Ophichthidae                             | 20                                           | 5.0                  | 31.0                 |
|                |                      |                     |                                            | Ophidiidae                               | 15                                           | 3.8                  | 8.0                  |
|                |                      |                     |                                            | Paralepididae                            | 33                                           | 4.4                  | 12.0                 |
|                |                      |                     |                                            | Paralepididae - <u>Lestidiops</u> sp.    | 3                                            | 19.0                 | 19.0                 |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus      | 20                                           | 2.3                  | 7.3                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 3                                            | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Scombridae - Thunnus atlanticus          | 10                                           | 4.1                  | 5.2                  |
|                |                      |                     |                                            | Serranidae                               | 20                                           | 3.0                  | 6.2                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                               | Number<br>larvae per<br>1,000 m3                                                         | Min.<br>size<br>(mm)                                                      | Max.<br>size<br>(mm)                                                                                      |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 7-10           | II-3                 | 333                 |                                | Serranidae - Anthias sp. Sphyraenidae - Sphyraena guachancho Synodontidae - Saurida sp. Synodontidae - Synodus sp. Unknown                                                                                                                                                                                                                                                                                                                           | 3<br>3<br>335<br>23<br>49                                                                | 2.2<br>7.1<br>2.0<br>2.2<br>1.5                                           | 2.2<br>7.1<br>15.0<br>3.4<br>6.0                                                                          |
| 7-10           | II-4                 | 505                 | 795                            | Bothidae - Bothus ocellatus  Bothidae - Syacium sp.  Bregmacerotidae - Bregmaceros atlanticus  Carangidae - Chloroscombrus chrysurus  Carangidae - Selene vomer  Cynoglossidae - Symphurus sp.  Engraulidae  Engraulidae  Engraulidae - Anchoa sp.  Gobiidae  Microdesmidae - Microdesmus sp.  Ophidiidae  Sciaenidae - Menticirrhus sp.  Scombridae - Scomberomorus cavalla  Serranidae - Diplectrum sp.  Tetraodontidae - Sphoeroides sp.  Unknown | 12<br>12<br>95<br>12<br>12<br>12<br>700<br>24<br>178<br>36<br>95<br>24<br>12<br>36<br>24 | 6.56 94 68 20 0 6 7 7 5 4 2 5 2 . 2 8 3 . 6 7 7 5 4 2 5 2 4 . 2 6 2 4 2 5 | 6.1<br>6.5<br>5.2<br>2.9<br>3.4<br>2.6<br>2.8<br>7.5<br>11.0<br>6.9<br>10.0<br>35.0<br>3.3<br>5.2<br>12.0 |
| 7-10           | II-4                 | 333                 | 14,737                         | Bothidae  Bothidae - Bothus ocellatus  Bothidae - Syacium sp.  Bothidae - Syacium gunteri  Bregmacerotidae - Bregmaceros atlanticus  Carangidae - Chloroscombrus chrysurus                                                                                                                                                                                                                                                                           | 63<br>38<br>163<br>50<br>25<br>13                                                        | 2.2<br>3.5<br>1.4<br>5.6<br>3.2<br>2.5                                    | 6.6<br>9.2<br>4.7<br>10.0<br>3.3<br>2.5                                                                   |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                  | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------|----------------------------------------------|----------------------|----------------------|
| 7-10           | II-4                 | 333                 |                                            | Carangidae - Selene vomer               | 25                                           | 2.0                  | 2.2                  |
|                |                      |                     |                                            | Engraulidae                             | 2,870                                        | 2.0                  | 6.7                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                | 25                                           | 7.3                  | 10.0                 |
|                |                      |                     |                                            | Gobiidae                                | 100                                          | 2.0                  | 5.1                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.         | 175                                          | 1.9                  | 10.0                 |
|                | <b></b>              |                     |                                            | Ophidiidae                              | 63                                           | 4.8                  | 9.4                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus     | 38                                           | 2.8                  | 5.3                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla      | 25                                           | 3.0                  | 6.5                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus maculatus    | 13                                           | 2.3                  | 2.3                  |
|                |                      |                     |                                            | Serranidae - Diplectrum sp.             | 13                                           | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Serranidae - Serraniculus pumilio       | 13                                           | 3.8                  | 3.8                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.            | 13                                           | 2.5                  | 2.5                  |
|                |                      |                     |                                            | Tetraodontidae - Sphoeroides sp.        | 13                                           | 5.2                  | 5.2                  |
|                |                      |                     |                                            | Unknown                                 | 88                                           | 1.6                  | 5.5                  |
| 7-11           | II-5                 | 505                 | 1,258                                      | Antennariidae                           | 15                                           | 2.4                  | 3.2                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus             | 4                                            | 8.6                  | 8.6                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri              | 8                                            | 5.8                  | 6.8                  |
|                | ě                    |                     |                                            | Carangidae - Caranx sp.                 | 79                                           | 2.4                  | 4.3                  |
|                |                      |                     |                                            | Congridae                               | 14                                           | 13.0                 | 13.0                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.           | 4                                            | 6.0                  | 6.0                  |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole       | 4                                            | 9.0                  | 9.0                  |
|                |                      |                     |                                            | Gobiidae                                | 30                                           | 3.5                  | 8.0                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.         | 75                                           | 2.2                  | 10.0                 |
|                |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.       | 15                                           | 4.2                  | 8.0                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.         | 8                                            | 17.0                 | 23.0                 |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis | 8                                            | 4.5                  | 5.2                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi   | 19                                           | 3.6                  | 8.5                  |
|                | ,                    |                     |                                            | Myctophidae - Diaphus sp.               | 15                                           | 3.2                  | 10.0                 |
|                |                      |                     |                                            | Myctophidae - Hygophum sp.              | 8                                            | 3.6                  | 4.3                  |
|                |                      |                     |                                            | Myctophidae - Hygophum reinhardti       | 11                                           | 3.2                  | 7.2                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                    | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|-------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 7-11           | II-5                 | 505                 |                                | Myctophidae - Lampadena sp.               | 8                                            | 4.0                  | 4.1                  |
|                |                      |                     |                                | Myctophidae - Lampanyctus sp.             | 4                                            | 3.0                  | 3.0                  |
|                |                      |                     |                                | Myctophidae - Myctophum sp.               | 4                                            | 3.7                  | 3.7                  |
|                |                      |                     |                                | Myctophidae - Myctophum obtusirostre      | 8                                            | 3.0                  | 3.7                  |
|                |                      |                     |                                | Myctophidae - Notolychnus valdiviae       | 8                                            | 3.3                  | 4.5                  |
|                |                      |                     |                                | Paralepididae                             | 53                                           | 5.2                  |                      |
|                |                      |                     |                                | Paralepididae - <u>Lestidiops</u> sp.     | 8                                            | 19.0                 | 27.0                 |
|                |                      |                     |                                | Scombridae - Euthynnus alletteratus       | 14                                           | 3.5                  | 3.5                  |
|                |                      |                     |                                | Scombridae - Thunnus atlanticus           | 23                                           | 2.7                  | 7.2                  |
|                |                      |                     |                                | Serranidae                                | 4                                            | 3.3                  | 3.3                  |
|                | •                    |                     |                                | Stromateidae - Cubiceps pauciradiatus     | 8                                            | 4.2                  | 4.3                  |
|                |                      |                     |                                | Trichiuridae - Diplospinous multistriatus | 4                                            | 2.8                  | 2.8                  |
|                |                      |                     |                                | Unknown                                   | 19                                           | 3.4                  | 6.4                  |
| 7-11           | II-5                 | 333                 | 692                            | Antennariidae                             | 24                                           | 1.5                  | 3.0                  |
|                |                      |                     |                                | Bothidae - Bothus ocellatus               | 20                                           | 4.7                  | 9.8                  |
|                |                      |                     |                                | Bothidae - Syacium gunteri                | 8                                            | 6.0                  | 8.8                  |
|                |                      |                     |                                | Carangidae - Caranx sp.                   | 78                                           | 2.1                  | 4.0                  |
|                |                      |                     |                                | Carangidae - Oligoplites saurus           | 74                                           | 3.2                  | 3.2                  |
|                |                      |                     |                                | Congridae                                 | 14                                           | 108.0                | 108.0                |
|                |                      |                     |                                | Engraulidae                               | . 4                                          | 6.4                  | 6.4                  |
|                |                      |                     |                                | Gobiidae                                  | 47                                           | 3.4                  | 8.0                  |
|                |                      |                     |                                | Gonostomatidae - Cyclothone sp.           | 7.4                                          | 2.3                  | 10.0                 |
|                |                      |                     |                                | Muraenidae - Gymnothorax sp.              | 4                                            | 55.0                 | 55.0                 |
|                |                      |                     |                                | Myctophidae                               | 98                                           | 1.9                  | 4.2                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus maderensis   | 20                                           | 3.0                  | 11.0                 |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus warmingi     | 24<br>h.a                                    | 3.0                  | 5.8                  |
|                | •                    |                     |                                | Myctophidae - Diaphus sp.                 | 43<br>24                                     | 2.2                  | 11.0                 |
|                |                      |                     |                                | Myctophidae - Hygophum sp.                | 24<br>27                                     | 2.7                  | 4.0<br>6.7           |
|                |                      |                     |                                | Myctophidae - Hygophum reinhardti         | 21                                           | 4.7                  | 0.1                  |

| Date   | Transect- | Mesh<br>size | Number<br>eggs per   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Number<br>larvae per                                                                                   | Min.<br>size                                                                                          | Max.<br>size                                                                                       |
|--------|-----------|--------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| (1976) | station   | (µ)          | 1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1,000 m <sup>3</sup>                                                                                   | (mm)                                                                                                  | (mm)                                                                                               |
| 7-11   | II-5      | 333          |                      | Myctophidae - Lampadena sp.  Myctophidae - Lampanyctus sp.  Myctophidae - Myctophum sp.  Myctophidae - Notolychnus valdiviae  Myctophidae - Notoscopelus sp.  Paralepididae  Scombridae  Scombridae - Auxis sp.                                                                                                                                                                                                                                                                   | 4<br>16<br>16<br>12<br>12<br>47<br>8<br>4                                                              | 5.1<br>2.6<br>3.0<br>3.2<br>3.2<br>3.5<br>2.2<br>2.7                                                  | 5.1<br>3.4<br>4.7<br>4.3<br>4.1<br>13.0<br>2.8<br>2.7                                              |
|        |           |              |                      | Scombridae - Scomberomorus cavalla Scombridae - Thunnus atlanticus Trichiuridae - Diplospinous multistriatus Unknown                                                                                                                                                                                                                                                                                                                                                              | 4<br>31<br>4<br>35                                                                                     | 2.5<br>2.0<br>2.9<br>1.6                                                                              | 2.5<br>4.9<br>2.9<br>4.5                                                                           |
| 7-11   | II-6      | 505          | 412                  | Antennariidae Bothidae Bothidae - Bothus sp. Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bothidae - Syacium gunteri Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae Carangidae Carangidae - Selene vomer Carangidae - Vomer setapinnis Cynoglossidae - Symphurus sp. Engraulidae Engraulidae Engraulidae - Engraulis eurystole Gobiidae Gonostomatidae - Cyclothone sp. Gonostomatidae - Vinciguerria sp. | 7<br>45<br>4<br>63<br>7<br>160<br>4<br>11<br>104<br>11<br>7<br>4<br>78<br>394<br>59<br>100<br>56<br>15 | 1.5<br>2.1<br>5.2<br>1.9<br>3.0<br>1.6<br>9.0<br>2.7<br>2.1<br>2.3<br>8.0<br>6.8<br>2.7<br>2.8<br>3.4 | 3.1<br>4.7<br>5.2<br>12.0<br>6.2<br>4.0<br>9.0<br>3.6<br>14.0<br>8.6<br>11.0<br>8.3<br>11.0<br>7.2 |

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                    | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------|----------------------|
| 127107      | 00001011             | (٢/                 | 1,000 m-                       | Hut vac                                   | 11,000 III                       | (11111)              | (111117)             |
| 7-11        | II <b>-</b> 6        | 505                 |                                | Microdesmidae - Microdesmus sp.           | 26                               | 3.5                  | 22.0                 |
|             |                      |                     |                                | Muraenidae - Gymnothorax sp.              | 14                               | 8.8                  | 8.8                  |
|             |                      |                     |                                | Myctophidae - Ceratoscopelus maderensis   | 7                                | 10.0                 | 11.0                 |
|             |                      |                     |                                | Myctophidae - Ceratoscopelus warmingi     | 41                               | 3.3                  | 5.5                  |
|             |                      |                     |                                | Myctophidae - Diaphus sp.                 | 33                               | 2.5                  | 6.4                  |
|             |                      |                     |                                | Myctophidae - Hygophum sp.                | 7                                | 3.2                  | 4.8                  |
|             |                      |                     |                                | Myctophidae - Hygophum reinhardti         | 7                                | 5.8                  | 6.8                  |
| *           |                      |                     |                                | Myctophidae - Lampanyctus sp.             | 4                                | 3.0                  | 3.0                  |
|             |                      |                     |                                | Myctophidae - Myctophum sp.               | 7                                | 3.4                  | 3.7                  |
|             |                      |                     |                                | Myctophidae - Notolychnus valdiviae       | 14                               | 4.7                  | 4.7                  |
|             |                      |                     |                                | Nettastomidae                             | 22                               | 4.0                  | 20.0                 |
|             |                      |                     |                                | Ophichthidae                              | 48                               | 3.3                  | 10.0                 |
|             |                      |                     |                                | Ophidiidae                                | 19                               | 4.5                  | 18.0                 |
|             |                      |                     |                                | Paralepididae                             | 26                               | 3.3                  | 11.0                 |
|             | ·* .                 |                     |                                | Scombridae - Euthynnus alletteratus       | 19                               | 3.4                  | 6.9                  |
|             |                      |                     |                                | Scombridae - Scomberomorus cavalla        | 4                                | 3.4                  | 3.4                  |
|             |                      | •                   |                                | Serranidae                                | 4                                | 3.5                  | 3.5                  |
|             |                      |                     |                                | Serranidae - Anthias sp.                  | 4                                | 4.0                  | 4.0                  |
|             |                      |                     |                                | Serranidae - Hemanthias vivanus           | 4                                | 4.1                  | 4.1                  |
|             |                      |                     |                                | Synodontidae - Saurida sp.                | 59                               | 3.0                  | 16.0                 |
|             | •                    |                     |                                | Synodontidae - Synodus sp.                | 14                               | 2.6                  | 2.6                  |
|             |                      |                     |                                | Trichiuridae - Diplospinous multistriatus | 14                               | 3.3                  | 3.3                  |
|             |                      |                     |                                | Unknown                                   | 67                               | 1.5                  | 8.4                  |
| 7-11        | II <b>-</b> 6        | 333                 | 434                            | Bothidae                                  | 133                              | 1.8                  | 5.0                  |
| ,           |                      |                     | · <del>-</del> ·               | Bothidae - Bothus ocellatus               | 90                               | 1.6                  | 13.0                 |
|             |                      |                     |                                | Bothidae - Syacium sp.                    | 262                              | 1.4                  | 3.7                  |
|             |                      |                     |                                | Bothidae - Syacium gunteri                | 4                                | 5.8                  | 5.8                  |
|             |                      |                     | -                              | Bregmacerotidae - Bregmaceros sp.         | 47                               | 1.7                  | 2.4                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus  | 125                              | 1.4                  | 10.0                 |

## Appendix table 1. (Continued)

| <del></del> |           | Mesh       | Number               |                                           | Number     | Min. | Max. |
|-------------|-----------|------------|----------------------|-------------------------------------------|------------|------|------|
| Date        | Transect- | size       | eggs per             |                                           | larvae per | size | size |
| (1976)      | station   | <u>(μ)</u> | 1,000 m <sup>3</sup> | Larvae                                    | 1,000 m3   | (mm) | (mm) |
| <b>5</b> 33 | (         |            |                      |                                           | 0          |      |      |
| 7-11        | 11-6      | 333        |                      | Carangidae - <u>Caranx</u> sp.            | 8          | 3.0  | 3.1  |
|             |           |            |                      | Carangidae - Selene vomer                 | 8          | 3.1  | 3.3  |
|             |           |            |                      | Cynoglossidae - Symphurus sp.             | 90         | 1.4  | 5.4  |
|             |           |            |                      | Engraulidae                               | 681        | 3.2  | 8.7  |
|             |           |            |                      | Engraulidae - Engraulis eurystole         | 106        | 7.2  | 13.0 |
|             |           |            |                      | Gobiidae                                  | 160        | 1.9  | 7.3  |
|             |           |            |                      | Gonostomatidae - Cyclothone sp.           | 55         | 3.0  | 10.0 |
|             |           |            |                      | Gonostomatidae - <u>Maurolicus</u> sp.    | 4          | 4.3  | 4.3  |
|             |           |            |                      | Gonostomatidae - <u>Vinciguerria</u> sp.  | 4          | 4.6  | 4.6  |
|             |           |            |                      | Microdesmidae - Microdesmus sp.           | 31         | 3.0  | 8.3  |
|             |           |            |                      | Myctophidae                               | 82         | 1.9  | 4.5  |
|             |           |            |                      | Myctophidae - Ceratoscopelus maderensis   | 35         | 2.8  | 8.7  |
|             |           |            |                      | Myctophidae - Ceratoscopelus warmingi     | 55         | 4.0  | 9.5  |
|             |           |            |                      | Myctophidae - Diaphus sp.                 | 86         | 2.3  | 8.6  |
|             |           |            |                      | Myctophidae - Hygophum sp.                | 12         | 2.6  | 4.1  |
|             | •         | •          |                      | Myctophidae - Hygophum reinhardti         | 8          | 6.8  | 7.3  |
|             |           |            |                      | Myctophidae - Lampanyctus sp.             | 8          | 2.7  | 3.0  |
|             | •         |            |                      | Myctophidae - Notolychnus valdiviae       | 8          | 3.7  | 4.3  |
|             |           |            |                      | Nettastomidae                             | 14         | 6.1  | 6.1  |
|             |           |            |                      | Ophichthidae                              | 59         | 3.8  | 9.2  |
|             |           |            |                      | Ophidiidae                                | 16         | 3.1  | 6.2  |
|             |           |            |                      | Paralepididae                             | 27         | 3.5  | 7.4  |
|             |           |            |                      | Scombridae - Auxis sp.                    | 16         | 2.4  | 6.2  |
|             |           |            |                      | Serranidae                                | 12         | 2.7  | 6.0  |
|             |           |            |                      | Serranidae - Anthias sp.                  | 8          | 2.2  | 2.2  |
|             |           |            |                      | Serranidae - Diplectrum sp.               | 14         | 6.0  | 6.0  |
|             |           |            |                      | Synodontidae - Saurida sp.                | 78         | 3.3  | 13.0 |
|             |           |            |                      | Synodontidae - Synodus sp.                | 24         | 2.7  | 2.8  |
|             |           |            |                      | Tetraodontidae                            | 12         | 1.9  | 2.8  |
|             |           |            |                      | Trichiuridae - Diplospinous multistriatus | 14         | 5.9  | 5.9  |
|             |           | •          |                      | Trichiuridae - Trichiurus lepturus        | 14         | 5.7  | 5.7  |
|             |           |            |                      | Unknown                                   | 39         | 2.2  | 7.5  |

## Appendix table 1. (Continued)

|        |           | Mesh       | Number               |                                                                  | Number               | Min. | Max.       |
|--------|-----------|------------|----------------------|------------------------------------------------------------------|----------------------|------|------------|
| Date   | Transect- | size       | eggs per             |                                                                  | larvae per           | size | size       |
| (1976) | station   | <u>(μ)</u> | 1,000 m <sup>3</sup> | Larvae                                                           | 1,000 m <sup>3</sup> | (mm) | (mm)       |
| 7-11   | II-7      | 505        | 186                  | Alepisauridae                                                    | 2                    | 4.3  | 4.3        |
| 1-11   | 11-1      | 707        | 100                  | Antennariidae                                                    | 2                    | 3.0  | 3.0        |
|        |           |            |                      | Bothidae - Bothus ocellatus                                      | 2                    | 9.9  | 9.9        |
|        |           |            |                      | Bothidae - Syacium sp.                                           | 2                    | 6.5  | 6.5        |
|        |           |            |                      | Bothidae - Syacium gunteri                                       | 2                    | 6.2  | 6.2        |
|        |           |            |                      | Branchiostegidae - Caulolatilus sp.                              | 2                    | 5.9  | 5.9        |
|        |           |            |                      | Carangidae - Caranx sp.                                          | 15                   | 2.3  | 3.3        |
|        |           |            |                      | Chauliodontidae - Chauliodus sp.                                 | 4                    | 16.0 | 16.0       |
|        |           |            |                      | Congridae - chaullouds sp.                                       | 2                    | 20.0 | 20.0       |
|        |           |            |                      | Engraulidae                                                      | 4                    | 3.0  | 6.0        |
|        |           |            |                      | Gobiidae                                                         | 11                   | 3.5  | 8.0        |
|        |           |            |                      | Gonostomatidae - Cyclothone sp.                                  | 36                   | 1.5  | 11.0       |
|        |           |            |                      | Gonostomatidae - Cyclothone sp.  Gonostomatidae - Maurolicus sp. | 36<br>4              | 7.6  | 8.5        |
|        |           |            |                      |                                                                  | 19                   | 4.0  |            |
|        |           |            |                      | Gonostomatidae - Vinciguerria sp.                                | 19                   | 2.1  | 7.5<br>4.2 |
|        |           |            |                      | Myctophidae Ponthagana subanhitala                               | 6                    | 3.0  | 4.0        |
|        |           |            |                      | Myctophidae - Benthosema suborbitale                             | 6                    | 5.2  | 8.7        |
|        |           |            |                      | Myctophidae - Ceratoscopelus maderensis                          | 6                    | 4.4  | 6.4        |
|        |           |            |                      | Myctophidae - Ceratoscopelus warmingi                            |                      |      |            |
|        |           |            |                      | Myctophidae - Diaphus sp.                                        | 17                   | 3.8  | 13.0       |
|        |           |            |                      | Myctophidae - Diogenichthys atlanticus                           | 11                   | 3.6  | 5.5        |
|        |           |            |                      | Myctophidae - Hygophum sp.                                       | 2                    | 3.7  | 3.7        |
|        |           |            |                      | Myctophidae - Hygophum reinhardti                                | 24                   | 4.0  | 13.0       |
|        |           |            |                      | Myctophidae - Lampanyctus sp.                                    | 6                    | 2.9  | 5.3        |
|        |           |            |                      | Myctophidae - Myctophum sp.                                      | 2                    | 5.7  | 5.7        |
|        |           |            |                      | Myctophidae - Myctophum obtusirostre                             | 11                   | 2.7  | 6.5        |
|        |           |            |                      | Myctophidae - Notolychnus valdiviae                              | 15                   | 3.5  | 6.2        |
|        |           |            |                      | Nettastomidae                                                    | 2                    | 36.0 | 36.0       |
|        |           |            |                      | Paralepididae                                                    | 24                   | 2.4  | 15.0       |
|        |           |            |                      | Scombridae - Auxis sp.                                           | 4                    | 3.0  | 3.5        |
|        |           |            |                      | Scombridae - Thunnus atlanticus                                  | 4                    | 4.0  | 4.0        |
|        |           |            |                      | Scopelarchidae                                                   | 14                   | 7.5  | 9.5        |

Appendix table 1. (Continued)

| Date (1976) | Transect-     | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                    | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|---------------|---------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------|----------------------|
|             |               |                     |                                |                                           |                                  | · · · · · · · ·      |                      |
| 7-11        | II <b>-</b> 7 | 505                 |                                | Serranidae                                | 2                                | 2.8                  | 2.8                  |
|             |               |                     |                                | Trichiuridae - Diplospinous multistriatus | 6                                | 3.1                  | 5.0                  |
|             |               | ,                   |                                | Unknown                                   | 26                               | 1.7                  | 6.0                  |
| 7-11        | II <b>-</b> 7 | 333                 | 170                            | Antennariidae                             | 2                                | 4.0                  | 4.0                  |
|             |               |                     | ·                              | Bathylagidae - Bathylagus sp.             | 7                                | 4.0                  | 5.0                  |
|             |               |                     |                                | Bothidae - Bothus ocellatus               | 2                                | 10.0                 | 10.0                 |
|             |               |                     |                                | Bothidae - Syacium gunteri                | 2                                | 11.0                 | 11.0                 |
|             |               |                     |                                | Branchiostegidae                          | 2                                | 8.7                  | 8.7                  |
|             |               |                     |                                | Branchiostegidae - Caulolatilus sp.       | 5                                | 6.0                  | 6.4                  |
|             |               |                     |                                | Bregmacerotidae - Bregmaceros sp.         | 25                               | 1.3                  | 8.2                  |
|             |               |                     |                                | Carangidae - Caranx sp.                   | 11                               | 2.0                  | 4.3                  |
|             |               |                     |                                | Congridae                                 | 2                                | 13.0                 | 13.0                 |
|             |               |                     |                                | Engraulidae                               | 5                                | 4.1                  | 7.7                  |
|             |               |                     |                                | Gobiidae                                  | 16                               | 4.4                  | 7.4                  |
|             |               |                     |                                | Gonostomatidae - Cyclothone sp.           | 45                               | 2.3                  | 10.0                 |
|             |               |                     |                                | Gonostomatidae - Maurolicus sp.           | 14                               | 2.7                  | 8.1                  |
|             |               |                     |                                | Gonostomatidae - Vinciguerria sp.         | 29                               | 3.5                  | 7.7                  |
|             |               |                     |                                | Myctophidae                               | 79                               | 2.0                  | 2.9                  |
|             | •             |                     |                                | Myctophidae - Benthosema suborbitale      | 9                                | 2.7                  | 4.3                  |
|             |               |                     |                                | Myctophidae - Bolinichthys sp.            | 2                                | 5.9                  | 5.9                  |
|             |               |                     |                                | Myctophidae - Ceratoscopelus maderensis   | 2<br>5                           | 4.1                  | 5.5                  |
|             |               |                     |                                | Myctophidae - Diaphus sp.                 | 9                                | 2.7                  | 5.2                  |
|             |               |                     |                                | Myctophidae - Diogenichthys atlanticus    | 34                               | 3.0                  | 5.5                  |
|             |               |                     |                                | Myctophidae - Hygophum sp.                | 16                               | 3.4                  | 5.0                  |
|             |               |                     |                                | Myctophidae - Hygophum reinhardti         | 11                               | 2.7                  | 8.5                  |
|             |               |                     |                                | Myctophidae - Lampanyctus sp.             | 18                               | 2.8                  | 4.0                  |
|             |               |                     |                                | Myctophidae - Myctophum sp.               | 14                               | 3.2                  | 4.0                  |
|             |               |                     |                                | Myctophidae - Myctophum obtusirostre      | 2                                | 5.3                  | 5.3                  |
|             |               |                     |                                | Myctophidae - Notolychnus valdiviae       | 29                               | 2.8                  | 4.6                  |
|             |               |                     |                                | Myctophidae - Notoscopelus sp.            | 2                                | 4.4                  | 4.4                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae <sup>:</sup>                                                                                                                                                                                                                                                                                                                                                                        | Number<br>larvae per<br>1,000 m3                                                           | Min.<br>size<br>(mm)                                                                             | Max.<br>size<br>(mm)                                                                             |
|----------------|----------------------|---------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 7-11           | II-7                 | 333                 |                                | Paralepididae Scombridae - <u>Futhynnus alletteratus</u> Scombridae - <u>Thunnus atlanticus</u> Scopelarchidae Scorpaenidae - <u>Scorpaena sp.</u> Trichiuridae - <u>Diplospinous multistriatus</u> Unknown                                                                                                                                                                                | 34<br>9<br>7<br>20<br>2<br>2<br>23                                                         | 2.8<br>2.4<br>2.6<br>2.6<br>6.2<br>4.7<br>2.2                                                    | 12.0<br>3.2<br>3.8<br>8.3<br>6.2<br>4.7<br>11.0                                                  |
| 8-28           | II-1                 | 505                 | 197                            | Bothidae  Bothidae - Syacium sp.  Carangidae  Carangidae - Chloroscombrus chrysurus  Clupeidae  Clupeidae - Harengula jaguana  Cynoglossidae - Symphurus sp.  Engraulidae  Engraulidae - Anchoa sp.  Gobiidae  Microdesmidae - Microdesmus sp.  Ophichthidae  Sciaenidae  Sciaenidae - Menticirrhus sp.  Scombridae - Scomberomorus maculatus  Trichiuridae - Trichiurus lepturus  Unknown | 45<br>393<br>756<br>15<br>30<br>45<br>15<br>454<br>30<br>61<br>61<br>15<br>166<br>15<br>30 | 4.2<br>1.4<br>1.8<br>4.2<br>4.9<br>10.0<br>2.6<br>9.0<br>3.1<br>7.5<br>2.8<br>3.2<br>10.1<br>2.0 | 5.4<br>3.4<br>4.0<br>4.2<br>7.0<br>11.1<br>2.0<br>7.8<br>13.9<br>4.6<br>7.4<br>2.8<br>4.1<br>8.0 |
| 8-28           | II-l                 | 333                 | 408                            | Bothidae Bothidae - Syacium sp. Carangidae Carangidae - Chloroscombrus chrysurus Clupeidae                                                                                                                                                                                                                                                                                                 | 163<br>865<br>897<br>65<br>65                                                              | 1.4<br>1.3<br>1.5<br>4.2<br>2.6                                                                  | 4.8<br>2.9<br>3.9<br>5.2<br>5.0                                                                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                 | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                      | Min.<br>size<br>(mm)                                                                                              | Max.<br>size<br>(mm)                                                                                             |
|----------------|----------------------|---------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 8–28           | II-1                 | 333                 |                                            | Clupeidae - Harengula jaguana Cynoglossidae - Symphurus sp. Engraulidae Engraulidae - Anchoa sp. Gobiidae Microdesmidae Sciaenidae Scombridae - Euthynnus alletteratus Scombridae - Scomberomorus maculatus Unknown                                                                                                                                                                                                                    | 33<br>65<br>1,321<br>16<br>196<br>343<br>343<br>16<br>33                                          | 9.9<br>1.7<br>2.1<br>7.6<br>1.1<br>1.9<br>1.6<br>3.3<br>2.1                                                       | 10.8<br>4.3<br>5.2<br>7.6<br>2.8<br>4.2<br>5.0<br>3.3<br>4.0<br>4.2                                              |
| 8-28           | II-2                 | 505                 | 2,623                                      | Bothidae - Bothus ocellatus Bothidae - Syacium sp. Bothidae - Syacium sp. Bothidae - Syacium gunteri Carangidae Clupeidae Clupeidae - Harengula jaguana Clupeidae - Opisthonema oglinum Cynoglossidae - Symphurus sp. Engraulidae Engraulidae Engraulidae - Anchoa sp. Engraulidae - Engraulis eurystole Gobiidae Gonostomatidae Grammistidae - Rypticus saponaceus Lutjanidae Microdesmidae - Microdesmus sp. Ophichthidae Ophidiidae | 69<br>6<br>138<br>6<br>29<br>46<br>34<br>12<br>75<br>425<br>23<br>23<br>574<br>6<br>12<br>52<br>6 | 1.1<br>18.5<br>2.0<br>8.8<br>2.5<br>3.4<br>7.0<br>4<br>1.9<br>8.8<br>2.9<br>3.7<br>2.9<br>6.3<br>7.0<br>10.5<br>9 | 6.5<br>18.5<br>5.6<br>8.8<br>3.6<br>5.4<br>7.2<br>5.5<br>6.7<br>11.7<br>10.3<br>7.6<br>9.3<br>3.7<br>7.5<br>10.5 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                       | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|----------------------------------------------|----------------------------------|----------------------|----------------------|
| 8-28           | II <b>-</b> 2        | 505                 |                                | Pomadasyidae - Haemulon sp.                  | 6                                | 2.8                  | 2.8                  |
|                |                      |                     |                                | Scombridae                                   | 6                                | 3.9                  | 3.9                  |
|                |                      |                     |                                | Scombridae - Scomberomorus cavalla           | 12                               | 6.4                  | 7.2                  |
|                |                      |                     |                                | Scombridae - Scomberomorus maculatus         | 6                                | 2.7                  | 2.7                  |
|                |                      |                     |                                | Serranidae                                   | 34                               | 2.4                  | 2.9                  |
|                |                      |                     |                                | Sphyraenidae - Sphyraena sp.                 | 57                               | 2.5                  | 5.0                  |
|                |                      |                     |                                | Synodontidae                                 | 6                                | 2.3                  | 2.3                  |
|                |                      |                     |                                | Synodontidae - <u>Saurida</u> sp.            | 29                               | 2.0                  | 2.8                  |
|                |                      |                     |                                | Synodontidae - Synodus sp.                   | .12                              | 6.2                  | 7.4                  |
|                |                      |                     |                                | Trichiuridae - Trichiurus lepturus           | 12                               | 5.2                  | 5.7                  |
|                |                      |                     |                                | Unknown                                      | 149                              | 1.8                  | 6.5                  |
| 8-28           | II-2                 | 333                 | 7,080                          | Bothidae                                     | 82                               | 1.9                  | 6.0                  |
|                |                      |                     |                                | Bothidae - Bothus sp.                        | 212                              | 1.9                  | 3.2                  |
|                |                      |                     |                                | Bothidae - Bothus ocellatus                  | 33                               | 4.3                  | 11.0                 |
|                |                      |                     | ·                              | Bothidae - Cyclopsetta sp.                   | 33                               | 2.7                  | 3.9                  |
|                |                      | •                   |                                | Bothidae - Syacium sp.                       | 408                              | 1.5                  | 4.4                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus     | 33                               | 1.6                  | 1.9                  |
|                |                      |                     |                                | Carangidae                                   | 82                               | 2.2                  | 2.6                  |
|                |                      |                     |                                | Clupeidae                                    | 294                              | 2.7                  | 5.7                  |
|                |                      | •                   |                                | Clupeidae - Harengula jaguana                | 98                               | 5.2                  | 6.2                  |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.                | 196                              | 1.7                  | 6.7                  |
|                |                      |                     |                                | Engraulidae                                  | 3 <b>,</b> 736                   | 1.5                  | 6.8                  |
|                |                      |                     |                                | Engraulidae - Anchoa sp.                     | 65                               | 7.4                  | 8.9                  |
|                |                      |                     |                                | Engraulidae - Engraulis eurystole            | 33                               | 9.3                  | 9.3                  |
|                |                      |                     |                                | Gobiidae                                     | 2,855                            | 1.2                  | 9.0                  |
|                |                      |                     |                                | Lutjanidae - Lutjanus sp.                    | 33                               | 4.0                  | 6.5                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.              | 326                              | 1.7                  | 10.4                 |
|                |                      |                     |                                | Ophichthidae                                 | 49                               | 4.3                  | 5.5                  |
|                |                      |                     |                                | Ophidiidae                                   | 515                              | 1.7                  | 11.5                 |
|                |                      |                     |                                | Sciaenidae - <u>Larimus</u> <u>fasciatus</u> | 65                               | 2.0                  | 2.5                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                                       | Min.<br>size<br>(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Max.<br>size<br>(mm)                                                                                                            |
|----------------|----------------------|---------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 8-28           | II-2                 | 333                 |                                | Scombridae Scombridae - Scomberomorus cavalla Serranidae - Diplectrum sp. Sphyraenidae - Sphyraena sp. Synodontidae Synodontidae - Caurida sp. Synodontidae - Synodus sp. Trichiuridae - Trichiurus lepturus Unknown                                                                                                                                                                                                                                                                                                                                     | 49<br>33<br>33<br>196<br>147<br>3 <sup>1</sup> :3<br>16<br>65<br>1,289                                             | 2.0<br>5.2<br>2.2<br>1.8<br>1.9<br>1.9<br>7.4<br>5.3<br>1.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.4<br>5.8<br>4.4<br>2.8<br>7.4<br>6.0<br>5.1                                                                                   |
| 8-27           | II-3                 | 505                 | 273                            | Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae Clupeidae Clupeidae - Harengula jaguana Clupeidae - Opisthonema oglinum Cynoglossidae - Symphurus sp. Engraulidae Engraulidae Engraulidae - Anchoa sp. Engraulidae - Engraulis eurystole Gobiidae Lutjanidae Microdesmidae - Microdesmus sp. Myctophidae Myctophidae - Ceratoscopelus warmingi Myctophidae - Diaphus sp. Myctophidae - Diaphus sp. Myctophidae - Hygophum reinhardti | 27<br>53<br>12<br>408<br>10<br>174<br>17<br>142<br>10<br>22<br>68<br>787<br>46<br>92<br>406<br>80<br>39<br>19<br>5 | 1.3<br>2.9<br>3.8<br>2.5<br>9.5<br>7<br>0.9<br>0.0<br>8<br>0.0<br>9.5<br>6<br>0.5<br>5<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>6<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5 | 3.3<br>5.6<br>5.1<br>3.1<br>8.3<br>7.2<br>14.5<br>9.8<br>13.0<br>17.4<br>6.2<br>16.8<br>6.8<br>5.1<br>5.6<br>6.8<br>6.2<br>16.5 |

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 127107      | Boadion              |                     | 2,000 m                                    | 15th + 0.0                               |                                              |                      |                      |
| 8-27        | II <b>-</b> 3        | 505                 |                                            | Nettastomidae                            | 12                                           | 5.4                  | 9.6                  |
|             |                      |                     |                                            | Ogcocephalidae                           | 2                                            | 2.8                  | 2.8                  |
|             |                      |                     |                                            | Ophichthidae                             | 60                                           | 3.1                  | 11.5                 |
|             |                      |                     |                                            | Ophidiidae                               | 19                                           | 3.8                  | 6.6                  |
|             |                      |                     |                                            | Paralepididae - Lestrolopis sp.          | 2                                            | 9.0                  | 9.0                  |
|             |                      |                     |                                            | Scombridae                               | <b>7</b> 5                                   | 1.8                  | 4.0                  |
|             |                      | -                   |                                            | Scombridae - Auxis sp.                   | 19                                           | 3.0                  | 6.8                  |
|             |                      |                     | •                                          | Scombridae - Euthynnus alletteratus      | 5                                            | 3.2                  | 3.8                  |
|             |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 27                                           | 2.8                  | 6.3                  |
|             |                      |                     |                                            | Serranidae                               | 43                                           | 1.4                  | 4.0                  |
|             |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.       | 5                                            | 3.2                  | 3.9                  |
|             |                      |                     |                                            | Sphyraenidae                             | 7                                            | 2.5                  | 3.8                  |
|             |                      |                     |                                            | Synodontidae                             | 7                                            | 3.4                  | 5.5                  |
|             |                      |                     | •                                          | Synodontidae - Saurida sp.               | 159                                          | 2.5                  | 7.7                  |
|             |                      |                     |                                            | Synodontidae - Synodus sp.               | 72                                           | 2.7                  | 13.5                 |
|             |                      |                     |                                            | Tetraodontidae                           | 5                                            | 2.1                  | 2.9                  |
|             |                      |                     |                                            | Unknown                                  | 87                                           | 1.6                  | 6.0                  |
| 8-27        | II-3                 | 333                 | 200                                        | Bothidae                                 | 38                                           | 1.8                  | 4.5                  |
|             |                      |                     |                                            | Bothidae - Bothus sp.                    | 31                                           | 2.1                  | 4.1                  |
|             |                      |                     |                                            | Bothidae - Bothus ocellatus              | 52                                           | 3.8                  | 7.9                  |
|             |                      |                     |                                            | Bothidae - Cyclopsetta sp.               | 14                                           | 2.3                  | 4.4                  |
|             |                      |                     |                                            | Bothidae - Syacium sp.                   | 187                                          | 1.5                  | 5.5                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 207                                          | 1.5                  | 8.4                  |
|             |                      |                     |                                            | Carangidae                               | 86                                           | 1.3                  | 2.6                  |
|             |                      |                     |                                            | Carangidae - Chloroscombrus chrysurus    | 7                                            | 8.1                  | 8.5                  |
|             |                      |                     |                                            | Clupeidae                                | 314                                          | 2.5                  | 6.3                  |
|             |                      |                     |                                            | Clupeidae - Harengula jaguana            | 10                                           | 6.1                  | 15.8                 |
|             |                      |                     |                                            | Clupeidae - Opisthonema oglinum          | 31                                           | 7.5                  | 9.9                  |
|             |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 117                                          | 1.8                  | 6.6                  |
|             |                      |                     |                                            | Engraulidae                              | 1,381                                        | 2.2                  | 7.9                  |

Appendix table 1. (Continued)

|                |                      | Mesh        | Number     |                                            | Number                             | Min.<br>size | Max.<br>size |
|----------------|----------------------|-------------|------------|--------------------------------------------|------------------------------------|--------------|--------------|
| Date<br>(1976) | Transect-<br>station | size<br>(µ) | eggs per   | Larvae                                     | larvae per<br>1,000 m <sup>3</sup> | (mm)         | (mm)         |
|                |                      |             |            |                                            |                                    |              |              |
| 8-27           | II <b>-</b> 3        | 333         |            | Engraulidae - Anchoa sp.                   | 93                                 | 6.5          | 14.5         |
|                |                      |             |            | Engraulidae - Engraulis eurystole          | 48                                 | 7.7          | 14.2         |
|                |                      |             |            | Gobiidae                                   | 784                                | 1.6          | 6.3          |
|                |                      |             |            | Grammistidae                               | 4 .                                | 4.5          | 4.5          |
|                |                      |             |            | Lutjanidae                                 | 100                                | 2.9          | 5.9          |
|                |                      |             |            | Microdesmidae - Microdesmus sp.            | 69                                 | 2.1          | 8.9          |
|                |                      |             |            | Muraenidae - Gymnothorax sp.               | 10                                 | 7.7          | 11.7         |
|                |                      |             |            | Myctophidae - Ceratoscopelus sp.           | 7                                  | 3.0          | 4.3          |
|                |                      |             | , · ·      | Myctophidae - Diaphus sp.                  | 3 <u>1</u>                         | 3.0          | 5.4          |
|                |                      |             |            | Nettastomidae                              | 7                                  | 7.1          | 9.2          |
|                |                      |             |            | Ogcocephalidae                             | 4                                  | 2.0          | 2.0          |
|                |                      |             |            | Ophichthidae                               | 69                                 | 4.0          | 10.0         |
|                |                      |             |            | Ophidiidae                                 | 28                                 | 2.0          | 7.5          |
|                |                      |             |            | Scombridae                                 | 135                                | 2.1          | 3.5          |
|                |                      |             |            | Scombridae - Auxis sp.                     | 24                                 | 3.5          | 5.4          |
|                |                      |             |            | Scombridae - <u>Euthynnus</u> alletteratus | 7                                  | 3.9          | 4.7          |
|                |                      |             |            | Scombridae - Scomberomorus cavalla         | 24                                 | 2.1          | 3.0          |
|                |                      |             |            | Scorpaenidae - Scorpaena sp.               | 14                                 | 5.9          | 5.9          |
|                |                      |             |            | Serranidae                                 | 14                                 | 3.1          | 4.1          |
|                |                      | •           |            | Serranidae - <u>Diplectrum</u> sp.         | 14                                 | 2.1          | 2.1          |
|                |                      |             |            | Sphyraenidae - Sphyraena sp.               | 73                                 | 1.7          | 8.2          |
|                |                      |             |            | Stromateidae                               | 14                                 | 2.7          | 2.7          |
|                |                      |             |            | Synodontidae                               | 14                                 | 2.1          | 4.2          |
|                |                      |             |            | Synodontidae - Saurida sp.                 | 183                                | 2.6          | 12.8         |
|                |                      |             |            | Synodontidae - Synodus sp.                 | 48                                 | 2.8          | 7.4          |
|                |                      |             |            | Tetraodontidae                             | 10                                 | 1.5          | 3.8          |
|                |                      |             |            | Trichiuridae - Trichiurus lepturus         | 4                                  | 5.9          | 5.9          |
|                |                      |             |            | Unknown                                    | 649                                | 1.2          | 11.0         |
| 8-28           | II-4                 | 505         | 2,865      | Both1dae                                   | 62                                 | 1.4          | 2.4          |
|                |                      | 7-7         | <b>,</b> , | Bothidae - Bothus sp.                      | 26                                 | 2.6          | 2.9          |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                     | Number<br>larvae per<br>1,000 m <sup>3</sup>                               | Min.<br>size<br>(mm)                                                             | Max.<br>size<br>(mm)                                                                     |
|----------------|----------------------|---------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 8-28           | II-4                 | 505                 |                                | Bothidae - Cyclopsetta sp.  Bothidae - Syacium sp.  Carangidae  Carangidae - Chloroscombrus chrysurus  Clupeidae  Clupeidae - Opisthonema oglinum  Cynoglossidae - Symphurus sp.  Engraulidae  Gobiidae  Microdesmidae - Microdesmus sp.  Ogcocephalidae  Scombridae  Scombridae  Scombridae - Scomberomorus cavalla  Serranidae - Diplectrum sp.  Stromateidae - Peprilus alepidotus  Synodontidae - Synodus sp.  Unknown | 44<br>457<br>53<br>9<br>53<br>9<br>132<br>668<br>193<br>35<br>9<br>9<br>9  | 1.7<br>1.6<br>2.1<br>3.3<br>4.9<br>1.7<br>2.8<br>2.4<br>2.5<br>7.7<br>4.3<br>1.5 | 3.141.897.545.435.4138<br>4.897.545.435.4138                                             |
| 8-28           | II-4                 | 333                 | 1,809                          | Bothidae - Bothus sp. Bothidae - Syacium sp. Carangidae Carangidae - Trachinotus sp. Clupeidae Clupeidae - Harengula jaguana Clupeidae - Opisthonema oglinum Cynoglossidae - Symphurus sp. Engraulidae Engraulidae Engraulidae Microdesmidae                                                                                                                                                                               | 905<br>78<br>2,627<br>29<br>10<br>156<br>10<br>448<br>1,839<br>20<br>1,265 | 1.3<br>1.8<br>1.2<br>1.7<br>2.0<br>2.5<br>8.2<br>6.0<br>1.3<br>1.5<br>8.2<br>1.1 | 2.6<br>2.9<br>5.9<br>3.3<br>2.0<br>5.1<br>8.2<br>6.0<br>2.9<br>7.0<br>8.4<br>4.0<br>13.0 |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 8-28           | 11-4                 | 333                 |                                            | Ophichthidae                             | 20                                           | 8.5                  | 8.7                  |
|                |                      |                     |                                            | Scombridae                               | 20                                           | 2.0                  | 2.4                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus      | 20                                           | 3.9                  | 5.3                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 20                                           | 4.5                  | 5.0                  |
|                |                      |                     | • •                                        | Scombridae - Scomberomorus maculatus     | 29                                           | 3.5                  | 6.6                  |
|                |                      |                     |                                            | Serranidae - Diplectrum sp.              | 39                                           | 2.2                  | 3.1                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.             | 10                                           | 3.9                  | 3.9                  |
|                |                      |                     |                                            | Stromateidae                             | 10                                           | 2.3                  | 2.3                  |
|                |                      |                     |                                            | Stromateidae - Peprilus alepidotus       | 10                                           | 3.3                  | 3.3                  |
|                |                      |                     |                                            | Synodontidae - <u>Saurida</u> sp.        | 10                                           | 2.8                  | 2.8                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.               | 10                                           | 4.0                  | 4.0                  |
|                |                      |                     |                                            | Trichiuridae                             | 10                                           | 5.4                  | 5.4                  |
|                |                      |                     |                                            | Unknown                                  | 1,245                                        | 0.9                  | 6.5                  |
| 8-28           | II-5                 | 505                 | 867                                        | Bothidae - Bothus ocellatus              | 18                                           | 2.5                  | 11.0                 |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 124                                          | 1.8                  | 6.0                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 4                                            | 8.2                  | 8.2                  |
|                |                      |                     |                                            | Carangidae                               | 4                                            | 3.3                  | 3.3                  |
|                |                      |                     |                                            | Clupeidae - <u>Harengula jaguana</u>     | 9                                            | 7.7                  | 7.7                  |
|                |                      |                     |                                            | Clupeidae - Opisthonema oglinum          | 4                                            | 9.1                  | 9.1                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 13                                           | 2.3                  | 3.2                  |
|                |                      |                     |                                            | Engraulidae                              | 53                                           | 4.5                  | 8.0                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                 | 9                                            | 7.3                  | 7.5                  |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 22                                           | 8.3                  | 14.5                 |
|                |                      |                     |                                            | Gobiidae                                 | 111                                          | 2.3                  | 5.4                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.          | 4                                            | 6.4                  | 6.4                  |
|                |                      |                     |                                            | Lutjanidae                               | 53                                           | 3.1                  | 5.3                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 40                                           | 2.9                  | 10.9                 |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 4                                            | 4.6                  | 4.6                  |
|                |                      |                     |                                            | Ophichthidae                             | 71                                           | 4.5                  | 9.0                  |
|                |                      |                     |                                            | Ophidiidae                               | 4                                            | 16.5                 | 16.5                 |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m3 | Larvae                                | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|---------------------------------------|----------------------------------------------|----------------------|----------------------|
| 8-28           | II <b>-</b> 5        | 505                 |                                | Pomadasyidae                          | 14                                           | 7.0                  | 7.0                  |
|                |                      |                     |                                | Scombridae                            | 14                                           | 2.1                  | 2.1                  |
|                |                      |                     |                                | Scombridae - Katsuwonus pelamis       | 4                                            | 6.0                  | 6.0                  |
|                |                      |                     |                                | Serranidae                            | 31                                           | 3.3                  | 4.5                  |
|                |                      |                     |                                | Sphyraenidae - Sphyraena sp.          | 18                                           | 2.7                  | 5.0                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.            | <b>3</b> 5                                   | 4.3                  | 5.8                  |
|                |                      |                     |                                | Trichiuridae - Trichiurus lepturus    | 4                                            | 4.8                  | 4.8                  |
|                |                      |                     |                                | Unknown                               | 93                                           | 1.9                  | 3.7                  |
| 8-28           | II-5                 | 333                 | 1,348                          | Balistidae - Balistes sp.             | 5                                            | 3.7                  | 3.7                  |
|                | ,                    |                     | _,_                            | Bothidae                              | 24                                           | 1.6                  | 2.2                  |
| •              |                      |                     |                                | Bothidae - Bothus ocellatus           | . 5                                          | 5.7                  | 5.7                  |
|                |                      |                     |                                | Bothidae - Cyclopsetta sp.            | 9                                            | 2.8                  | 3.9                  |
|                |                      |                     |                                | Bothidae - Syacium sp.                | 160                                          | 1.7                  | 7.5                  |
|                |                      |                     |                                | Carangidae                            | 5                                            | 2.6                  | 2.6                  |
|                |                      |                     |                                | Clupeidae - Harengula jaguana         | 5                                            | 5.7                  | 5.7                  |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.         | 33                                           | 1.9                  | 7.0                  |
|                |                      |                     |                                | Engraulidae                           | 52                                           | 2.7                  | 7.4                  |
|                |                      |                     |                                | Engraulidae - Engraulis eurystole     | 24                                           | 8.5                  | 14.0                 |
|                |                      |                     |                                | Gobiidae                              | 203                                          | 1.5                  | 6.0                  |
|                |                      |                     |                                | Lutjanidae - Lutjanus sp.             | 123                                          | 2.4                  | 5.2                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.       | 47                                           | 1.9                  | 6.6                  |
|                |                      |                     |                                | Mugilidae - Mugil sp.                 | 5                                            | 2.7                  | 2.7                  |
|                |                      |                     |                                | Myctophidae - Bolinichthys sp.        | 5                                            | 4.6                  | 4.6                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus warmingi | 5                                            | 5.0                  | 5.0                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.             | 5                                            | 6.6                  | 6.6                  |
|                |                      |                     |                                | Ophichthidae                          | 66                                           | 5.1                  | 10.9                 |
|                |                      |                     |                                | Ophidiidae                            | 14                                           | 4.9                  | 8.6                  |
|                |                      |                     |                                | Priacanthidae                         | 5                                            | 3.2                  | 3.2                  |
|                |                      |                     |                                | Scombridae                            | 19                                           | 2.1                  | 2.4                  |
|                |                      |                     |                                | Scombridae - Scomberomorus cavalla    | 9                                            | 2.6                  | 5.5                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                     | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|------------------------------------------------------------|----------------------------------|----------------------|----------------------|
| 8-28        | II <b>-</b> 5        | 333                 |                                            | Scombridae - Thunnus sp.                                   | 5                                | 4.2                  | 4.2                  |
|             |                      |                     |                                            | Serranidae                                                 | 5                                | 2.9                  | 2.9                  |
|             |                      |                     |                                            | Sphyraenidae - Sphyraena sp.                               | 14                               | 2.5                  | 5.9                  |
|             |                      |                     |                                            | Synodontidae - Saurida sp.                                 | 9                                | 4.7                  | 5.1                  |
|             |                      |                     |                                            | Synodontidae - Synodus sp.                                 | 5                                | 4.3                  | 4.3                  |
|             |                      |                     |                                            | Unknown                                                    | 12ζ                              | 1.4                  | 3.6                  |
| 8-28        | 11-6                 | 505                 | 677                                        | Bothidae                                                   | 63                               | 2.6                  | 5.0                  |
|             |                      |                     | •                                          | Bothidae - Bothus sp.                                      | 3                                | 2.5                  | 2.5                  |
|             |                      |                     |                                            | Bothidae - Bothus ocellatus                                | 23                               | 3.8                  | 6.8                  |
|             |                      |                     |                                            | Bothidae - Cyclopsetta sp.                                 | 39                               | 2.8                  | 4.8                  |
|             |                      |                     |                                            | Bothidae - Syacium sp.                                     | 325                              | 1.6                  | 8.1                  |
|             |                      |                     |                                            | Bothidae - Syacium gunteri                                 | 7                                | 6.9                  | 7.2                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus                   | 164                              | 1.8                  | 7.2                  |
|             |                      |                     |                                            | Carangidae                                                 | 16                               | 1.8                  | 3.0                  |
|             |                      |                     |                                            | Carangidae - Caranx sp.                                    | 3                                | 2.0                  | 2.0                  |
| •           |                      |                     |                                            | Clupeidae                                                  | 13                               | 4.1                  | 5.2                  |
|             |                      |                     |                                            | Clupeidae - Harengula jaguana                              | 7                                | 7.9                  | 8.6                  |
|             |                      |                     |                                            | Clupeidae - Opisthonema oglinum                            | 3                                | 7.0                  | 7.0                  |
|             |                      |                     |                                            | Coryphaenidae - Coryphaena sp.                             | 3<br>109                         | 8.6                  | 8.6                  |
|             |                      |                     |                                            | Cynoglossidae - Symphurus sp.                              | 812                              | 1.9<br>2.4           | 5.1<br>8.3           |
|             |                      |                     |                                            | Engraulidae                                                | 26                               | 7.5                  | 10.0                 |
|             |                      |                     |                                            | Engraulidae - Anchoa sp. Engraulidae - Engraulis eurystole | 26                               | 6.1                  | 13.0                 |
|             |                      |                     |                                            | Ephippidae - Chaetodipterus faber                          | 3                                | 2.9                  | 2.9                  |
|             |                      |                     |                                            | Gobiidae                                                   | 720                              | 1.2                  | 6.9                  |
|             |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                            | 3                                | 4.9                  | 4.9                  |
|             |                      |                     |                                            | Gonostomatidae - Maurolicus sp.                            | 3                                | 4.8                  | 4.8                  |
|             |                      |                     |                                            | Lutjanidae                                                 | 10                               | 3.5                  | 6.8                  |
|             |                      |                     |                                            | Microdesmidae - Microdesmus sp.                            | 99                               | 2.5                  | 12.8                 |
|             |                      |                     |                                            | Muraenidae - Gymnothorax sp.                               | 7                                | 9.8                  | 16.4                 |

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                | Number<br>larvae per<br>1,000 m3                                                 | Min.<br>size<br>(mm)                                                                    | Max.<br>size<br>(mm)                                                                     |
|-------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 8-28        | II-6                 | 505                 |                                            | Myctophidae - Diaphus sp.  Ophichthidae Ophidiidae Sciaenidae Scombridae - Auxis sp. Scombridae - Euthynnus alletteratus Scombridae - Scomberomorus cavalla Scombridae - Scomberomorus maculatus Serranidae Sphyraenidae - Sphyraena sp. Synodontidae Synodontidae - Surida sp. Synodontidae - Synodus sp. Trichiuridae - Trichiurus lepturus Unknown | 16<br>86<br>23<br>7<br>3<br>3<br>10<br>7<br>7<br>33<br>26<br>7<br>184<br>10<br>3 | 3.4<br>3.6<br>2.5<br>3.2<br>5.3<br>3.5<br>3.6<br>3.4<br>1.6<br>2.2<br>2.3<br>5.8<br>1.4 | 4.4<br>14.4<br>5.2<br>3.4<br>2.3<br>6.9<br>4.4<br>3.2<br>4.7<br>4.9<br>3.4<br>3.9<br>5.1 |
| 8-28        | II <b>-</b> 6        | 333                 | 4,649                                      | Apogonidae Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bothidae - Syacium gunteri Bregmacerotidae - Bregmaceros atlanticus Carangidae Carangidae - Chloroscombrus sp. Clupeidae Cynoglossidae Cynoglossidae - Symphurus sp. Engraulidae                                                                             | 7<br>96<br>26<br>55<br>684<br>22<br>515<br>22<br>4<br>26<br>48<br>221<br>1,522   | 2.1<br>1.4<br>3.2<br>1.7<br>1.4<br>6.0<br>1.7<br>1.7<br>3.5<br>3.3<br>1.4<br>1.4<br>2.7 | 3.3<br>4.0<br>6.5<br>4.5<br>6.2<br>8.4<br>7.9<br>3.5<br>7.1<br>1.9<br>4.0<br>8.1         |

Appendix table 1. (Continued)

| Daté<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                 | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|----------------------------------------|----------------------------------------------|----------------------|----------------------|
| 8-28           | II <b>-</b> 6        | 333                 |                                            | Engraulidae - Engraulis eurystole      | 37                                           | 7.2                  | 12.0                 |
|                |                      |                     |                                            | Gobiidae                               | 2,444                                        | 1.3                  | 6.4                  |
|                |                      |                     |                                            | Gonostomatidae - <u>Maurolicus</u> sp. | 22                                           | 1.9                  | 5.2                  |
|                |                      |                     |                                            | Lutjanidae                             | 44                                           | 2.4                  | 5.6                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.        | 191                                          | 1.9                  | 9.8                  |
|                |                      |                     |                                            | Muraenidae - Gymnothorax sp.           | · 7                                          | 8.0                  | 12.0                 |
|                |                      |                     |                                            | Myctophidae                            | 7                                            | 2.6                  | 2.8                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.              | 18                                           | 3.0                  | 4.1                  |
|                |                      |                     |                                            | Ogcocephalidae                         | 22                                           | 1.8                  | 2.5                  |
|                |                      |                     |                                            | Ophichthidae                           | 63                                           | 4.3                  | 8.0                  |
|                |                      |                     |                                            | Ophidiidae                             | 26                                           | 2.1                  | 4.9                  |
|                |                      |                     |                                            | Paralepididae                          | 4                                            | 4.0                  | 4.0                  |
|                |                      |                     |                                            | Scombridae                             | 29                                           | 1.9                  | 2.6                  |
|                |                      |                     |                                            | Scombridae - Auxis sp.                 | _ 4                                          | 6.5                  | 6.5                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus    | 18                                           | 4.0                  | 5.9                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla     | 22                                           | 2.6                  | 5.6                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus maculatus   | 7                                            | 2.5                  | 3.4                  |
|                |                      |                     |                                            | Serranidae                             | 22                                           | 2.8                  | 4.8                  |
|                |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.     | 7                                            | 1.9                  | 2.5                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.           | 7                                            | 2.2                  | 2.4                  |
|                |                      |                     |                                            | Synodontidae - Saurida sp.             | 283                                          | 2.3                  | 6.6                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.             | 52                                           | 2.2                  | 5.3                  |
|                |                      |                     |                                            | Tetraodontidae                         | 74                                           | 1.1                  | 1.1                  |
|                |                      |                     |                                            | Unknown                                | 294                                          | 1.1                  | 5.0                  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 8-27           | II <b>-</b> 7        | 505                 | 148                            | Bothidae                                 | 140                                          | 2.4                  | 7.5                  |
|                | ,                    | , - ,               |                                | Bothidae - Bothus ocellatus              | 47                                           | 2.9                  | 6.5                  |
|                |                      |                     |                                | Bothidae - Cyclopsetta sp.               | 8                                            | 3.0                  | 5.9                  |
|                |                      |                     |                                | Bothidae - Syacium sp.                   | 86                                           | 1.7                  | 4.6                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.        | 14                                           | 2.1                  | 5.0                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 255                                          | 2.3                  | 10.2                 |
|                |                      |                     |                                | Carangidae                               | 12                                           | 2.1                  | 5.8                  |
|                |                      |                     |                                | Carangidae - Decapterus punctatus        | 12                                           | 2.2                  | 6.1                  |
|                |                      |                     |                                | Clupeidae                                | 35                                           | 4.1                  | 11.1                 |
|                |                      |                     |                                | Clupeidae - Harengula jaguana            | 76                                           | 6.0                  | 14.3                 |
|                |                      |                     |                                | Clupeidae - Opisthonema oglinum          | 19                                           | 6.0                  | 10.5                 |
|                |                      |                     |                                | Clupeidae - Sardinella anchovia          | 2                                            | 15.5                 | 15.5                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 29                                           | 2.9                  | 12.3                 |
|                |                      |                     |                                | Engraulidae                              | 436                                          | 4.0                  | 13.5                 |
|                |                      |                     |                                | Engraulidae - Anchoa sp.                 | 123                                          | 7.5                  | 15.5                 |
|                |                      |                     |                                | Engraulidae - Engraulis eurystole        | 49                                           | 7.7                  | 15.0                 |
|                |                      |                     |                                | Gerreidae                                | 6                                            | 4.0                  | 10.1                 |
|                |                      |                     |                                | Gobiidae                                 | 499                                          | 2.1                  | 8.9                  |
|                |                      |                     |                                | Gonostomatidae - Cyclothone sp.          | 6                                            | Lost                 |                      |
|                |                      |                     |                                | Gonostomatidae - Vinciguerria sp.        | 2                                            | Lost                 |                      |
|                |                      |                     |                                | Lutjanidae                               | 39                                           | 3.1                  | 4.9                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 33                                           | 2.5                  | 10.8                 |
|                |                      |                     |                                | Mugilidae - Mugil sp.                    | 2                                            | 2.5                  | 2.5                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.                | 25                                           | 3.4                  | 5.6                  |
|                |                      |                     |                                | Nettastomidae                            | 2                                            | 8.6                  | 8.6                  |
|                |                      |                     |                                | Ophichthidae                             | 80                                           | 4.6                  | 40.5                 |
|                |                      |                     |                                | Ophidiidae                               | 35                                           | 2.0                  | 29.0                 |
|                |                      |                     |                                | Paralepididae                            | 2                                            | 3.6                  | 3.6                  |
|                |                      |                     |                                | Pomadasyidae - Haemulon sp.              | 2                                            | 4.5                  | 4.5                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 2                                            | 6.8                  | 6.8                  |
|                |                      |                     |                                | Scombridae                               | 14                                           | 2.9                  | 9.0                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                          | Number<br>larvae per<br>1,000 m3                                                                     | Min.<br>size<br>(mm)                                                                       | Max.<br>size<br>(mm)                                                                                                |
|----------------|----------------------|---------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 8-27           | II-7                 | 505                 |                                | Scombridae - Auxis sp. Scombridae - Euthynnus alletteratus Scombridae - Scomberomorus cavalla Scombridae - Thunnus atlanticus Scorpaenidae - Scorpaena sp. Serranidae Soleidae Sphyraenidae - Sphyraena sp. Synodontidae Synodontidae - Saurida sp. Synodontidae - Synodus sp. Unknown                                                                                                                          | 2<br>6<br>4<br>2<br>25<br>2<br>49<br>47<br>193<br>33<br>434                                          | 5.5<br>5.4<br>3.1<br>3.8<br>4.2<br>2.6<br>3.5<br>2.9<br>3.3<br>2.1                         | 5.5<br>13.2<br>5.0<br>5.6<br>4.2<br>5.8<br>3.5<br>5.2<br>9.0<br>12.5<br>14.6<br>6.1                                 |
| 8-27           | II-7                 | 333                 | 136                            | Bothidae - Bothus sp. Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae Clupeidae Clupeidae - Harengula jaguana Clupeidae - Opisthonema oglinum Clupeidae - Sardinella anchovia Cynoglossidae - Symphurus sp. Engraulidae Engraulidae Engraulidae - Anchoa sp. Engraulidae Gerreidae Gobiidae | 109<br>50<br>40<br>5<br>102<br>10<br>357<br>38<br>79<br>60<br>12<br>2<br>38<br>497<br>121<br>55<br>2 | 1.7<br>1.8<br>3.0<br>2.7<br>1.8<br>1.5<br>1.9<br>3.8<br>7.0<br>10.5<br>2.3.4<br>6.1<br>1.9 | 5.7<br>4.0<br>6.9<br>3.7<br>4.8<br>5.0<br>10.3<br>3.7<br>13.0<br>11.7<br>10.1<br>14.5<br>14.5<br>13.9<br>4.1<br>9.8 |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                              | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------|----------------------------------------------|----------------------|----------------------|
| 8-27           | II <b>-</b> 7        | 333                 |                                            | Gonostomatidae - Cyclothone sp.     | . 2                                          | 6.5                  | 6.5                  |
| ·              | ·                    |                     |                                            | Gonostomatidae - Maurolicus sp.     | 7                                            | 3.7                  | 4.8                  |
|                |                      |                     |                                            | Lutjanidae                          | 86                                           | 3.1                  | 5.2                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.     | 57                                           | 1.9                  | 14.4                 |
|                |                      |                     |                                            | Myctophidae                         | 2                                            | 3.0                  | 3.0                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus sp.    | 2                                            | 2.9                  | 2.9                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.           | 48                                           | 2.7                  | 6.0                  |
|                |                      |                     |                                            | Nettastomidae                       | 2                                            | 6.0                  | 6.0                  |
|                |                      |                     | •                                          | Ogcocephalidae                      | 7                                            | 1.8                  | 2.9                  |
|                |                      |                     |                                            | Ophichthidae                        | 109                                          | 3.0                  | 25.0                 |
|                |                      |                     |                                            | Ophidiidae                          | 31                                           | 3.2                  | 21.7                 |
|                |                      |                     |                                            | Paralepididae                       | 14                                           | 3.0                  | 8.9                  |
|                |                      |                     |                                            | Scombridae                          | 307                                          | 1.9                  | 3.4                  |
|                |                      |                     |                                            | Scombridae - Auxis sp.              | 2                                            | 9.5                  | 9.5                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus | 14                                           | 3.8                  | 6.7                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla  | 10                                           | 2.0                  | 8.7                  |
|                |                      |                     |                                            | Scorpaenidae - Scorpaena sp.        | 2                                            | 3.2                  | 3.2                  |
|                |                      |                     |                                            | Serranidae                          | 29                                           | 1.6                  | 4.0                  |
|                |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.  | 2                                            | 6.5                  | 6.5                  |
|                |                      |                     |                                            | Sphyraenidae -                      | 83                                           | 2.0                  | 7.1                  |
|                |                      |                     |                                            | Stromateidae                        | 2                                            | 2.3                  | 2.3                  |
|                |                      |                     |                                            | Synodontidae                        | 55                                           | 2.5                  | 7.9                  |
|                |                      |                     |                                            | Synodontidae - <u>Saurida</u> sp.   | 516                                          | 2.6                  | 9.2                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.          | 67                                           | 2.3                  | 16.0                 |
|                |                      |                     |                                            | Unknown                             | 433                                          | 1.4                  | 10.0                 |
| 9-15           | I-1                  | 505                 | 2,256                                      | Bothidae                            | 47                                           | 3.0                  | 7.9                  |
|                |                      |                     | • •                                        | Bothidae - Bothus sp.               | 12                                           | 17.1                 | 17.1                 |
|                |                      |                     |                                            | Bothidae - Syacium sp.              | 35                                           | 2.7                  | 6.4                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri          | 47                                           | 8.4                  | 11.1                 |
|                |                      |                     |                                            | Carangidae - Chloroscombrus sp.     | 186                                          | 1.6                  | 4.9                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|---------------------------------------|----------------------------------|----------------------|----------------------|
| 9-15           | I-1                  | 505                 |                                            | Carangidae - Chloroscombrus chrysurus | 70                               | 4.8                  | 6.2                  |
| , -,           |                      | ,,,                 |                                            | Clupeidae                             | 70                               | 3.2                  | 6.6                  |
|                |                      |                     |                                            | Clupeidae - Harengula jaguana         | 12                               | 22.2                 | 22.2                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.         | 58                               | 4.7                  | 9.5                  |
|                |                      |                     |                                            | Engraulidae                           | 1,151                            | 2.0                  | 11.1                 |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.              | 593                              | 5.8                  | 22.9                 |
|                |                      |                     | -                                          | Engraulidae - Engraulis eurystole     | 47                               | 9.9                  | 15.1                 |
|                |                      |                     |                                            | Gerreidae                             | 12                               | 10.9                 | 10.9                 |
|                |                      |                     |                                            | Gobiidae                              | 267                              | 2.6                  | 9.0                  |
|                |                      |                     | •                                          | Ophichthidae                          | 12                               | 29.9                 | 29.9                 |
|                |                      |                     |                                            | Ophidiidae                            | 35                               | 6.2                  | 8.2                  |
|                |                      |                     |                                            | Sciaenidae                            | 47                               | 1.8                  | 7.2                  |
|                |                      |                     |                                            | Sciaenidae - Cynoscion sp.            | 267                              | 2.1                  | 6.7                  |
|                |                      |                     |                                            | Sciaenidae - Cynoscion nothus         | 407                              | 4.5                  | 17.4                 |
|                |                      |                     |                                            | Sciaenidae - Menticirrhus sp.         | 47                               | 3.1                  | 4.1                  |
|                |                      |                     |                                            | Scombridae                            | 12                               | 3.1                  | 3.1                  |
|                |                      |                     |                                            | Trichiuridae                          | 12                               | 13.4                 | 13.4                 |
|                |                      |                     |                                            | Unknown                               | 116                              | 1.1                  | 5.0                  |
| 9-15           | I-l                  | 333                 | 3,702                                      | Bothidae - Bothus ocellatus           | 38                               | 3.9                  | 12.0                 |
|                |                      |                     |                                            | Bothidae - Syacium sp.                | 51                               | 1.3                  | 7.2                  |
|                |                      |                     |                                            | Bothidae - Syacium gunteri            | 127                              | 8.3                  | 10.9                 |
|                |                      |                     |                                            | Carangidae                            | 280                              | 1.5                  | 4.0                  |
|                |                      |                     |                                            | Carangidae - Chloroscombrus chrysurus | 89                               | 4.2                  | 7.4                  |
|                |                      |                     |                                            | Clupeidae                             | 115                              | 3.2                  | 5.5                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.         | 51                               | 2.8                  | 7.0                  |
|                |                      |                     |                                            | Engraulidae                           | 1,501                            | 2.4                  | 8.5                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.              | 725                              | 7.9                  | 18.6                 |
|                |                      |                     |                                            | Gerreidae - Eucinostomus lefroyi      | 13                               | 11.2                 | 11.2                 |
|                |                      |                     |                                            | Gobiidae                              | 293                              | 1.4                  | 9.5                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.       | 13                               | 1.8                  | 1.8                  |

Appendix table 1. (Continued)

| Date<br>(1976)      | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|---------------------|----------------------|---------------------|--------------------------------------------|---------------------------------------|----------------------------------------------|----------------------|----------------------|
| 9-15                | I-1                  | 333                 |                                            | Ophichthidae                          | 13                                           | 87.0                 | 87.0                 |
| <i>)</i> - <b>1</b> | 1 - 1                | 333                 |                                            | Ophidiidae                            | 38                                           | 2.0                  | 11.2                 |
|                     |                      |                     |                                            | Sciaenidae                            | 496                                          | 1.8                  | 7.8                  |
|                     |                      |                     |                                            | Sciaenidae - Cynoscion sp.            | 165                                          | 4.0                  | 6.7                  |
|                     |                      |                     | 4 · *                                      | Sciaenidae - Cynoscion nothus         | 445                                          | 4.6                  | 15.0                 |
|                     |                      |                     |                                            | Sciaenidae - Menticirrhus sp.         | 51                                           | 3.0                  | 5.6                  |
|                     |                      |                     |                                            | Sciaenidae - Sciaenops ocellata       | 13                                           | 5.1                  | 5.1                  |
|                     |                      |                     |                                            | Scombridae                            | 25                                           | 2.1                  | 2.3                  |
|                     |                      |                     |                                            | Scombridae - Auxis sp.                | 13                                           | 4.8                  | 4.8                  |
|                     |                      |                     |                                            | Scombridae - Scomberomorus maculatus  | 51                                           | 1.9                  | 2.5                  |
|                     |                      |                     |                                            | Unknown                               | 611                                          | 1.0                  | 4.2                  |
| 9-15                | I <b>-</b> 2         | 505                 | 100                                        | Bothidae                              | 28                                           | 3.1                  | 8.0                  |
| ) -)                |                      | ,-,                 |                                            | Bothidae - Bothus ocellatus           | 177                                          | 2.4                  | 7.0                  |
|                     |                      |                     |                                            | Bothidae - Cyclopsetta sp.            | 28                                           | 3.0                  | 7.2                  |
|                     |                      |                     |                                            | Bothidae - Syacium sp.                | 853                                          | 1.5                  | 7.7                  |
|                     |                      |                     |                                            | Bothidae - Syacium gunteri            | 72                                           | 5.7                  | 11.0                 |
|                     |                      |                     |                                            | Carangidae - Chloroscombrus chrysurus | 6                                            | 13.0                 | 13.0                 |
|                     |                      |                     |                                            | Carangidae - Vomer setapinnis         | 6                                            | 6.7                  | 6.7                  |
|                     |                      |                     |                                            | Cynoglossidae - Symphurus sp.         | 122                                          | 1.7                  | 7.2                  |
|                     |                      |                     |                                            | Engraulidae                           | 498                                          | 3.1                  | 8.9                  |
|                     |                      |                     |                                            | Engraulidae - Engraulis eurystole     | 55                                           | 7.2                  | 14.0                 |
|                     |                      |                     |                                            | Gobiidae                              | 1,202                                        | 1.6                  | 7.8                  |
|                     |                      |                     |                                            | Grammistidae - Rypticus saponaceus    | 11                                           | 4.3                  | 5.4                  |
|                     |                      |                     |                                            | Lutjanidae                            | 11                                           | 4.8                  | 12.0                 |
|                     |                      |                     |                                            | Microdesmidae - Microdesmus sp.       | 155                                          | 1.6                  | 25.0                 |
|                     |                      |                     |                                            | Ogcocephalidae                        | 11                                           | 1.8                  | 3.6                  |
|                     |                      |                     |                                            | Ophichthidae                          | 39                                           | 13.0                 | 26.0                 |
|                     |                      |                     |                                            | Ophidiidae                            | 11                                           | 4.5                  | 39.0                 |
|                     |                      |                     |                                            | Scombridae                            | 61                                           | 2.1                  | 3.4                  |
|                     |                      |                     |                                            | Scombridae - Scomberomorus cavalla    | 22                                           | 2.8                  | 3.2                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                     | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|----------------------------------------------------------------------------|----------------------------------|----------------------|----------------------|
| 9-15           | I <b>-</b> 2         | 505                 |                                            | Scorpaenidae<br>Sphyraenidae - Sphyraena sp.<br>Synodontidae - Synodus sp. | 17<br>17<br>6                    | 2.2<br>2.9<br>7.9    | 6.7<br>3.4<br>7.9    |
|                |                      |                     |                                            | Trichiuridae<br>Unknown                                                    | 11<br>138                        | 5.3<br>1.3           | 8.7                  |
| 9-15           | I <b>-</b> 2         | 333                 | 90                                         | Bothidae                                                                   | 36                               | 1.8                  | 7.6                  |
|                |                      |                     |                                            | Bothidae - Bothus sp.                                                      | 179                              | 1.5<br>3.0           | 3.7<br>5.0           |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp.                     | 107<br>30                        | 2.2                  | 4.4                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                                                     | 746                              | 1.3                  | 7.9                  |
|                |                      |                     |                                            | Carangidae                                                                 | 18                               | 1.7                  | 3.2                  |
|                |                      |                     |                                            | Carangidae - Chloroscombrus chrysurus                                      | 18                               | 4.9                  | 14.2                 |
|                |                      |                     |                                            | Carangidae - Vomer setapinnis                                              | 24                               | 6.3                  | 7.8                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.                                              | 167                              | 1.2                  | 10.0                 |
|                |                      |                     |                                            | Engraulidae                                                                | 822                              | 2.2                  | 6.9                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                                                   | 24                               | 7.5                  | 10.2                 |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole                                          | 6                                | 10.5                 | 10.5                 |
|                |                      |                     |                                            | Gobiidae                                                                   | 2,560                            | 1.6                  | 8.9                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                                            | 6                                | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Lutjanidae                                                                 | <u>,</u> 6                       | 3.6                  | 3.6                  |
|                |                      |                     |                                            | Lutjanidae - <u>Lutjanus</u> sp.                                           | 42                               | 3.7                  | 9.7                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.                                            | 155                              | 1.5                  | 21.5                 |
|                |                      |                     |                                            | Ogcocephalidae                                                             | 24                               | 2.0                  | 3.4                  |
|                |                      |                     |                                            | Ophichthidae                                                               | 24                               | 17.7                 | 28.4                 |
|                |                      |                     |                                            | Ophidiidae                                                                 | 18                               | 5.7                  | 2.0                  |
|                |                      |                     |                                            | Priacanthidae                                                              | 6                                | 2.8                  | 2.8                  |
|                |                      |                     |                                            | Scombridae                                                                 | 48                               | 2.1                  | 3.6                  |
|                |                      |                     |                                            | Scombridae - Auxis sp.                                                     | 12                               | 3.9                  | 4.5                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus                                        | 6<br>18                          | 4.9                  | 4.9<br>3.0           |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla                                         | 10                               | 1.9                  | 3.0                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 9-15           | I <b>-</b> 2         | 333                 |                                | Scombridae - Scomberomorus maculatus     | 6                                | 11.5                 | 11.9                 |
|                |                      |                     |                                | Serranidae                               | 12                               | 3.1                  | 12.                  |
|                |                      |                     |                                | Sphyraenidae - Sphyraena sp.             | 78                               | 1.9                  | 4.                   |
|                |                      |                     |                                | Stromateidae - Peprilus sp.              | 6                                | 2.1                  | 2.                   |
|                |                      |                     |                                | Synodontidae                             | 6                                | 5.2                  | 5.2                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.               | 6                                | 7.0                  | 7.0                  |
|                |                      |                     |                                | Synodontidae - Synodus sp.               | 12                               | 4.8                  | 5.5                  |
|                |                      |                     |                                | Trichiuridae - Trichiurus lepturus       | 12                               | 5.3                  | 6.9                  |
|                |                      |                     |                                | Unknown                                  | 322                              | 1.2                  | 7.8                  |
| 9 <b>-</b> 15  | I-3                  | 505                 | 337                            | Bothidae - Bothus sp.                    | 15                               | 3.3                  | 4.3                  |
|                |                      |                     |                                | Bothidae - Bothus ocellatus              | 14                               | 3.7                  | 8.5                  |
|                |                      |                     |                                | Bothidae - Syacium sp.                   | 53                               | 2.8                  | 7.0                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.        | 2                                | 3.8                  | 3.8                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 2<br>2<br>8                      | 6.1                  | 6.1                  |
|                |                      |                     |                                | Carangidae - Decapterus punctatus        |                                  | 2.2                  | 4.1                  |
|                |                      |                     |                                | Congridae                                | 13                               | 11.6                 | 16.1                 |
|                |                      |                     |                                | Cynoglossidae - <u>Symphurus</u> sp.     | 6                                | 3.8                  | 6.0                  |
|                |                      |                     |                                | Engraulidae                              | . 4                              | 3.1                  | 5.3                  |
|                |                      |                     |                                | Gobiidae                                 | 40                               | 3.5                  | 8.6                  |
|                |                      |                     |                                | Gonostomatidae - Cyclothone sp.          | 30                               | 3.0                  | 9.5                  |
|                |                      |                     |                                | Lutjanidae - <u>Lutjanus</u> sp.         | 2                                | 2.9                  | 2.9                  |
|                |                      |                     |                                | Melanostomiatidae                        | 2                                | 7.0                  | 7.0                  |
|                |                      |                     |                                | Muraenidae - <u>Gymnothorax</u> sp.      | 2                                | 53.5                 | 53.5                 |
|                |                      |                     |                                | Myctophidae                              | 21                               | 1.4                  | 4.5                  |
|                |                      |                     |                                | Myctophidae - Bolinichthys sp.           | 6                                | 4.5                  | 5.4                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus maderensis  | 2                                | 4.5                  | 4.5                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus warmingi    | 2                                | 3.7                  | 3.7                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.                | 13                               | 2.8                  | 4.5                  |
|                |                      |                     |                                | Myctophidae - Lampadena sp.              | 2                                | 5.0                  | 5.0                  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                  | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|-----------------------------------------|----------------------------------------------|----------------------|----------------------|
| 9-15           | I <b>-</b> 3         | 505                 |                                | Ophichthidae                            | 6                                            | 6.9                  | 12.0                 |
|                |                      |                     |                                | Ophidiidae                              | 2<br>6                                       | 19.1                 | 19.1                 |
| -              | · Signary            |                     |                                | Scombridae                              | 6                                            | 2.0                  | 3.4                  |
|                | **·                  |                     |                                | Scombridae - Auxis sp.                  | 2                                            | 3.4                  | 3.4                  |
|                |                      |                     |                                | Scombridae - Thunnus sp.                | 15                                           | 3.7                  | 5.0                  |
|                |                      |                     |                                | Serranidae                              | 30                                           | 2.7                  | 4.3                  |
|                |                      |                     |                                | Synodontidae - Trachinocephalus myops   | 2                                            | 8.5                  | 8.5                  |
|                |                      |                     |                                | Tetraodontidae - Sphoeroides sp.        | 2                                            | 3.8                  | 3.8                  |
|                |                      |                     |                                | Unknown                                 | 1114                                         | 1.8                  | 18.5                 |
| 9-15           | I-3                  | 333                 | 299                            | Balistidae - Monacanthus sp.            | 2                                            | 8.0                  | 8.0                  |
|                |                      |                     |                                | Bothidae                                | 6                                            | 3.8                  | 5.2                  |
|                |                      |                     |                                | Bothidae - Bothus sp.                   | . 11                                         | 2.7                  | 5.2                  |
|                |                      |                     |                                | Bothidae - Bothus ocellatus             | 14                                           | 3.6                  | 4.8                  |
|                |                      |                     |                                | Bothidae - Syacium sp.                  | 45                                           | 2.8                  | 8.5                  |
|                |                      |                     |                                | Carangidae - Chloroscombrus chrysurus   | 2                                            | 6.4                  | 6.4                  |
|                |                      |                     |                                | Carangidae - Decapterus punctatus       | 14                                           | 2.5                  | 3.7                  |
|                | •                    |                     |                                | Congridae                               | 4                                            | 12.9                 | 13.0                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.           | 9                                            | 3.0                  | 3.9                  |
|                |                      |                     |                                | Engraulidae                             | 4                                            | 2.6                  | 2.8                  |
|                |                      |                     |                                | Engraulidae - Engraulis eurystole       | 2                                            | 16.1                 | 16.1                 |
|                |                      |                     |                                | Gobiidae                                | 45                                           | 2.3                  | 7.3                  |
|                |                      |                     |                                | Gonostomatidae                          | 9                                            | 2.4                  | 6.5                  |
|                |                      |                     |                                | Gonostomatidae - Cyclothone sp.         | 28                                           | 4.0                  | 11.9                 |
|                |                      |                     |                                | Lutjanidae - Lutjanus sp.               | 14                                           | 3.8                  | 3.9                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.         | 2                                            | 6.0                  | 6.0                  |
|                |                      |                     |                                | Mugilidae - <u>Mugil</u> sp.            | 2                                            | 2.5                  | 2.5                  |
|                |                      |                     |                                | Muraenidae - Gymnothorax sp.            | 2                                            | 44.5                 | 44.5                 |
|                |                      |                     |                                | Myctophidae                             | ıj                                           | 3.5                  | 7.2                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus sp.        | 6                                            | 3.5                  | 3.8                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus maderensis | 6                                            | 4.0                  | 5.6                  |

Appendix table 1. (Continued)

| Date<br>(1976)       | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------------|----------------------|---------------------|--------------------------------|---------------------------------------|----------------------------------|----------------------|----------------------|
| 9-15                 | I <b>-</b> 3         | 333                 |                                | Myctophidae - Ceratoscopelus warmingi | 15                               | 4.1                  | 6.4                  |
| ) <del>- 1</del> , ) | 1-3                  | 222                 |                                | Myctophidae - Diaphus sp.             | 30                               | 2.8                  | 5.0                  |
|                      |                      |                     |                                | Nettastomidae                         | 2                                | 13.8                 | 13.8                 |
|                      |                      |                     |                                | Ogcocephalidae                        | 2                                | 1.9                  | 1.9                  |
|                      |                      |                     |                                | Scombridae                            | 28                               | 2.2                  | 3.7                  |
|                      |                      |                     |                                | Scombridae - Auxis sp.                | 9                                | 3.7                  | 4.6                  |
|                      |                      |                     |                                | Scombridae - Scomberomorus cavalla    | 2                                | 2.6                  | 2.6                  |
|                      |                      |                     |                                | Scombridae - Thunnus sp.              | 2                                | 3.7                  | 3.7                  |
|                      |                      |                     |                                | Scombridae - Thunnus atlanticus       | 2                                | 6.8                  | 6.8                  |
|                      |                      |                     |                                | Scorpaenidae - Scorpaena sp.          | 2                                | 4.9                  | 4.9                  |
|                      |                      |                     |                                | Serranidae                            | 28                               | 2.7                  | 4.4                  |
|                      |                      |                     |                                | Unknown                               | 58                               | 1.9                  | 13.2                 |
| 9-10                 | II-1                 | 505                 | 381                            | Carangidae                            | 463                              | 1.8                  | 3.9                  |
|                      |                      |                     |                                | Carangidae - Chloroscombrus chrysurus | 124                              | 3.7                  | 10.1                 |
|                      |                      |                     |                                | Clupeidae                             | 134                              | 2.1                  | 4.4                  |
|                      |                      |                     |                                | Clupeidae - Opisthonema oglinum       | 10                               | 6.2                  | 6.2                  |
|                      |                      |                     |                                | Cynoglossidae - Symphurus sp.         | 41                               | 1.6                  | 3.3                  |
|                      |                      |                     |                                | Engraulidae                           | 1,236                            | 2.0                  | 6.3                  |
|                      |                      |                     |                                | Gobiidae                              | 21                               | 1.2                  | 1.2                  |
|                      |                      |                     |                                | Sciaenidae - Cynoscion sp.            | 31                               | 2.3                  | 4.0                  |
|                      |                      |                     |                                | Sciaenidae - Cynoscion nothus         | 52                               | 4.7                  | 11.5                 |
|                      |                      |                     |                                | Scombridae                            | 10                               | 1.9                  | 1.9                  |
|                      |                      |                     | •                              | Unknown                               | 113                              | 1.1                  | 3.5                  |
| 9-10                 | II-1                 | 333                 | 1,338                          | Bothidae                              | 32                               | 1.6                  | 1.8                  |
| •                    |                      |                     | -                              | Carangidae                            | 696                              | 1.8                  | 4.3                  |
|                      |                      |                     |                                | Carangidae - Chloroscombrus chrysurus | 74                               | 4.0                  | 9.8                  |
|                      |                      |                     |                                | Clupeidae                             | 200                              | 2.6                  | 7.0                  |
|                      |                      |                     |                                | Cynoglossidae - Symphurus sp.         | 32                               | 1.7                  | 2.6                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                              | Number<br>larvae per<br>1,000 m <sup>3</sup>                                        | Min.<br>size<br>(mm)                                                                                                    | Max.<br>size<br>(mm)                                                                                                       |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 9-10           | II-1                 | 333                 |                                            | Engraulidae Gobiidae Sciaenidae Sciaenidae - Cynoscion sp. Unknown                                                                                                                                                                                                                                                                                                                  | 1,191<br>21<br>105<br>42<br>285                                                     | 1.9<br>1.3<br>1.5<br>4.2                                                                                                | 6.7<br>2.0<br>2.7<br>8.5<br>6.5                                                                                            |
| 9-14           | II-2                 | 505                 | 271                                        | Bothidae  Bothidae - Syacium sp.  Clupeidae - Harengula jaguana  Cynoglossidae - Symphurus sp.  Engraulidae  Engraulidae - Anchoa sp.  Engraulidae - Engraulis eurystole  Gobiidae  Lutjanidae  Microdesmidae - Microdesmus sp.  Muraenidae - Gymnothorax sp.  Ophichthidae  Ophidiidae  Scomberomorus cavalla  Scorpaenidae - Scorpaena sp.  Sphyraenidae - Sphyraena sp.  Unknown | 28<br>271<br>9<br>28<br>56<br>9<br>56<br>364<br>19<br>28<br>9<br>9<br>28<br>56<br>9 | 3.0<br>3.5<br>10.0<br>3.8<br>2.3<br>13.0<br>9.5<br>1.5<br>3.1<br>4.9<br>12.0<br>4.5<br>20.5<br>2.3<br>4.7<br>3.0<br>2.8 | 3.7<br>7.4<br>10.0<br>10.5<br>7.0<br>13.0<br>16.0<br>9.1<br>5.8<br>10.0<br>12.0<br>4.5<br>22.0<br>7.2<br>4.7<br>5.5<br>6.9 |
| 9-14           | II-2                 | 333                 | 160                                        | Bothidae  Bothidae - Bothus ocellatus  Bothidae - Syacium sp.  Bothidae - Syacium gunteri  Clupeidae - Harengula jaguana  Cynoglossidae - Symphurus sp.  Engraulidae                                                                                                                                                                                                                | 20<br>20<br>250<br>20<br>10<br>100<br>120                                           | 1.9<br>4.2<br>3.0<br>7.9<br>8.5<br>1.6<br>2.2                                                                           | 1.9<br>4.5<br>7.5<br>11.5<br>8.5<br>5.8<br>3.7                                                                             |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 9-14           | II-2                 | 333                 |                                            | Engraulidae - Engraulis eurystole        | 10                                           | 9.8                  | 9.8                  |
| • •            |                      |                     |                                            | Gobiidae                                 | 400                                          | 1.5                  | 4.9                  |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.          | 20                                           | 6.5                  | 15.1                 |
|                |                      |                     |                                            | Lutjanidae                               | 30                                           | 3.1                  | 5.5                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 30                                           | 6.3                  | 15.0                 |
|                |                      |                     |                                            | Ophichthidae                             | 30                                           | 5.3                  | 34.0                 |
|                |                      |                     |                                            | Scombridae                               | 10                                           | 2.2                  | 2.2                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 30                                           | 4.4                  | 7.2                  |
|                |                      |                     |                                            | Scombridae - Thunnus sp.                 | 10                                           | 3.6                  | 3.6                  |
|                |                      |                     |                                            | Scorpaenidae - Scorpaena sp.             | 10                                           | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Serranidae                               | 20                                           | 2.7                  | 3.6                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.             | 20                                           | 3.9                  | 5.2                  |
|                | -                    |                     |                                            | Unknown                                  | 170                                          | 1.5                  | 4.9                  |
| 9-12           | II <b>-</b> 3        | 505                 | 303                                        | Bothidae                                 | 39                                           | 2.9                  | 5.5                  |
| ,              |                      |                     |                                            | Bothidae - Bothus sp.                    | 180                                          | 1.9                  | 6.5                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus              | 87                                           | 3.1                  | 6.5                  |
|                |                      |                     |                                            | Bothidae - Cyclopsetta sp.               | 3                                            | 10.0                 | 10.0                 |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 105                                          | 2.6                  | 7.1                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 777                                          | 1.5                  | 31.0                 |
|                |                      |                     |                                            | Carangidae                               | 3                                            | 2.7                  | 2.7                  |
|                |                      |                     |                                            | Clupeidae - Harengula jaguana            | 6                                            | 7.4                  | 10.0                 |
|                |                      |                     |                                            | Clupeidae - Sardinella anchovia          | 15                                           | 10.0                 | 13.0                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 87                                           | 2.2                  | 7.1                  |
|                |                      |                     |                                            | Engraulidae                              | 21                                           | 4.6                  | 11.0                 |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                 | 15                                           | 9.6                  | 12.0                 |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 15                                           | 9.7                  | 14.0                 |
|                |                      |                     |                                            | Gobiidae                                 | 699                                          | 2.2                  | 6.1                  |
|                |                      |                     |                                            | Gonostomatidae - Maurolicus sp.          | 57                                           | 2.5                  | 5.2                  |
|                |                      |                     |                                            | Lutjanidae                               | 6                                            | 2.8                  | 3.6                  |
|                |                      |                     |                                            | Lutjanidae - Lutjanus sp.                | 15                                           | 4.2                  | 7.5                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 9-13        | II <b>-</b> 3        | 505                 |                                            | Microdesmidae - Microdesmus sp.          | 27                               | 5.1                  | 11.0                 |
| ,           | 3                    | ,-,                 |                                            | Muraenidae                               | 9                                | 10.0                 | 11.0                 |
|             |                      |                     |                                            | Myctophidae                              | 3                                | 2.6                  | 2.6                  |
|             |                      |                     |                                            | Myctophidae - Ceratoscopelus sp.         | 9                                | 2.6                  | 3.3                  |
|             |                      |                     |                                            | Myctophidae - Diaphus sp.                | 150                              | 2.8                  | 8.1                  |
|             |                      |                     |                                            | Ophichthidae                             | 6                                | 5.2                  | 5.6                  |
|             |                      |                     |                                            | Ophidiidae                               | 36                               | 3.1                  | 11.0                 |
|             |                      |                     |                                            | Paralepididae                            | 6                                | 2.4                  | 3.1                  |
|             |                      |                     |                                            | Sciaenidae - Cynoscion nothus            | 3                                | 3.6                  | 3.6                  |
|             |                      |                     |                                            | Scombridae                               | 15                               | 2.1                  | 3.0                  |
|             |                      |                     |                                            | Scombridae - Auxis sp.                   | 12                               | 3.3                  | 8.2                  |
|             |                      |                     |                                            | Scombridae - Euthynnus alletteratus      | 12                               | 5.3                  | 7.4                  |
|             |                      |                     |                                            | Serranidae                               | 24                               | 3.0                  | 3.8                  |
|             |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.       | 3                                | 4.0                  | 4.0                  |
|             |                      |                     |                                            | Sphyraenidae - Sphyraena guachancho      | 9                                | 5.8                  | 11.0                 |
|             |                      |                     |                                            | Synodontidae                             | 3                                | 5.8                  | 5.8                  |
|             |                      |                     |                                            | Synodontidae - Saurida sp.               | 87                               | 2.2                  | 21.0                 |
|             |                      |                     |                                            | Synodontidae - Synodus sp.               | 12                               | 3.4                  | 7.7                  |
|             |                      |                     |                                            | Trichiuridae - Trichiurus lepturus       | 3                                | 10.0                 | 10.0                 |
|             |                      |                     |                                            | Unknown                                  | 300                              | 1.9                  | 6.0                  |
| 9-13        | II-3                 | 333                 | 212                                        | Bothidae                                 | 13                               | 3.9                  | 5.5                  |
|             |                      |                     |                                            | Bothidae - Bothus sp.                    | 192                              | 2.7                  | 7.0                  |
|             |                      |                     |                                            | Bothidae - Bothus ocellatus              | 84                               | 3.2                  | 7.6                  |
|             |                      |                     |                                            | Bothidae - Cyclopsetta sp.               | 10                               | 2.6                  | 8.8                  |
|             |                      |                     |                                            | Bothidae - Syacium sp.                   | 71                               | 1.9                  | 4.9                  |
|             |                      |                     |                                            | Bothidae - Syacium gunteri               | 3                                | 6.3                  | 6.3                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 10                               | 2.3                  | 2.6                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 1,009                            | 1.6                  | 9.5                  |
|             |                      |                     |                                            | Clupeidae - Harengula jaguana            | 3                                | 7.0                  | 7.0                  |
|             |                      |                     |                                            | Clupeidae - Opisthonema sp.              | 7                                | 11.0                 | 12.0                 |

Appendix table 1. (Continued)

| Date          | Transect-     | Mesh<br>size | Number<br>eggs per |                                     | Number<br>larvae per | Min.<br>size | Max.<br>size |
|---------------|---------------|--------------|--------------------|-------------------------------------|----------------------|--------------|--------------|
| (1976)        | station       | (µ)          | 1,000 m3           | Larvae                              | 1,000 m3             | (mm)         | (mm)         |
| 9 <b>-</b> 13 | II <b>-</b> 3 | 333          |                    | Congridae                           | 3                    | 16.0         | 16.0         |
| / _3          | <u> </u>      | 333          |                    | Cynoglossidae - Symphurus sp.       | 81                   | 2.8          | 7.8          |
|               |               |              |                    | Elopidae - Elops saurus             | . 3                  | 14.5         | 14.5         |
|               |               |              |                    | Engraulidae                         | . 3                  | 3.3          | 3.3          |
|               |               |              |                    | Engraulidae - Engraulis eurystole   | 64                   | 3.3          | 12.0         |
|               |               |              |                    | Gobiidae                            | 592                  | 1.6          | 7.1          |
|               |               |              |                    | Gonostomatidae - Maurolicus sp.     | 37                   | 3.4          | 7.0          |
|               |               |              |                    | Gonostomatidae - Vinciguerria sp.   | 7                    | 3.6          | 10.0         |
|               |               |              |                    | Lutjanidae                          | 7                    | 3.7          | 4.5          |
|               |               |              |                    | Microdesmidae - Microdesmus sp.     | 17                   | 6.4          | 13.0         |
|               |               |              |                    | Myctophidae - Ceratoscopelus sp.    | 34                   | 2.4          | 3.2          |
|               |               |              |                    | Myctophidae - Diaphus sp.           | 182                  | 2.6          | 6.3          |
|               |               |              |                    | Myctophidae - Myctophum sp.         | 13                   | 3.0          | 3.4          |
|               |               |              |                    | Ophichthidae                        | 13                   | 5.7          | 23.0         |
|               |               |              |                    | Ophidiidae                          | 10                   | 3.6          | 10.0         |
|               |               |              |                    | Paralepididae                       | 13                   | 3.4          | 5.0          |
|               |               |              |                    | Pomadasyidae                        | 3                    | 3.0          | 3.0          |
|               |               |              |                    | Scombridae                          | 10                   | 2.9          | 3.1          |
|               |               |              |                    | Scombridae - Auxis sp.              | 3                    | 13.0         | 13.0         |
|               |               |              |                    | Scombridae - Euthynnus alletteratus | 17                   | 4.5          | 9.0          |
|               |               |              |                    | Scombridae - Scomberomorus cavalla  | 24                   | 4.1          | 9.7          |
|               |               |              |                    | Scombridae - Thunnus sp.            | 3                    | 6.0          | 6.0          |
|               |               |              |                    | Serranidae                          | 54                   | 2.6          | 6.5          |
|               |               |              |                    | Synodontidae - Saurida sp.          | 124                  | 3.0          | 10.0         |
|               |               |              |                    | Synodontidae - Synodus sp.          | 24                   | 2.3          | 10.0         |
|               |               |              |                    | Unknown                             | 363                  | 1.3          | 11.0         |
| 9-10          | 11-4          | 505          | 286                | Bothidae                            | 10                   | 6.7          | 7.6          |
| 7 20          | ·             | , , ,        |                    | Bothidae - Bothus sp.               | 21                   | 2.5          | 8.1          |
|               |               |              |                    | Bothidae - Bothus ocellatus         | 26                   | 3.9          | 6.4          |
|               |               |              |                    | Bothidae - Cyclopsetta sp.          | 5                    | 2.5          | 2.5          |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|---------------------------------------|----------------------------------------------|----------------------|----------------------|
| 9-10           | II-4                 | 505                 |                                            | Bothidae - Syacium sp.                | 31                                           | 3.8                  | .5.1                 |
| 9-10           | **                   | 707                 |                                            | Carangidae                            | 15                                           | 2.5                  | 3.1                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.         | 21                                           | 3.2                  | 5.4                  |
|                |                      |                     | •                                          | Engraulidae                           | 56                                           | 4.2                  | 10.4                 |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.              | 5                                            | 12.4                 | 12.4                 |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole     | 10                                           | 9.2                  | 10.8                 |
|                |                      |                     |                                            | Gobiidae                              | 154                                          | 1.9                  | 7.7                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.       | 10                                           | 6.8                  | 8.7                  |
|                |                      |                     |                                            | Muraenidae - Gymnothorax sp.          | 5                                            | 33.0                 | 33.0                 |
|                |                      |                     |                                            | Ophichthidae                          | 31                                           | 10.0                 | 33.5                 |
|                |                      |                     |                                            | Ophichthidae - Myrophis sp.           | 10                                           | 19.0                 | 43.3                 |
|                |                      |                     |                                            | Scombridae                            | 5                                            | 3.4                  | 3.4                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla    | 5                                            | 2.9                  | 2.9                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.          | 31                                           | 2.5                  | 5.6                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.            | 10                                           | 4.3                  | 5.2                  |
|                |                      |                     |                                            | Unknown                               | 10                                           | 1.8                  | 1.9                  |
| 9-10           | II-4                 | 333                 | 348                                        | Bothidae                              | 5                                            | 3.6                  | 3.6                  |
| ,              | ,                    | 333                 |                                            | Bothidae - Bothus sp.                 | 27                                           | 3.1                  | 6.3                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus           | 49                                           | 3.7                  | 7.5                  |
|                |                      |                     |                                            | Bothidae - Cyclopsetta sp.            | 5                                            | 5.1                  | 5.1                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                | 1414                                         | 4.6                  | 7.2                  |
|                |                      |                     |                                            | Carangidae                            | 22                                           | 2.5                  | 4.4                  |
|                |                      |                     |                                            | Carangidae - Chloroscombrus chrysurus | 5                                            | 8.1                  | 8.1                  |
|                |                      |                     |                                            | Clupeidae                             | 22                                           | 2.7                  | 3.5                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.         | 60                                           | 2.3                  | 10.3                 |
|                |                      |                     |                                            | Engraulidae                           | 120                                          | 4.0                  | 9.0                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.              | , <del>4</del> 9                             | 7.8                  | 19.2                 |
|                |                      |                     |                                            | Gobiidae                              | 403                                          | 1.0                  | 8.9                  |
|                |                      |                     |                                            | Lutjanidae                            | 5                                            | 3.3                  | 3.3                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.       | 65                                           | 1.8                  | 14.5                 |

Appendix table 1. (Continued)

| Date<br>(1976)      | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max<br>size<br>(mm) |
|---------------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|---------------------|
| 9-10                | 11-4                 | 333                 |                                            | Muraenidae - Gymnothorax sp.             | 5<br>60                          | 19.6<br>10.6         | 19.6<br>44.0        |
|                     |                      |                     |                                            | Ophichthidae                             | 11                               | 2.5                  | 2.                  |
|                     |                      |                     |                                            | Sciaenidae                               | 16                               | 2.2                  | 2.8                 |
|                     |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 54                               | 2.3                  | 6.9                 |
|                     |                      |                     |                                            | Sphyraenidae - Sphyraena sp.             | 93                               | 2.0                  | 4.                  |
|                     |                      |                     |                                            | Synodontidae Synodontidae                | 5                                | 3.4                  | 3.                  |
|                     |                      |                     |                                            | Synodontidae - Synodus sp.               | 5                                | 8.8                  | 8.8                 |
|                     |                      |                     |                                            | Unknown                                  | 87                               | 1.5                  | 9.                  |
| 9-14                | II-5                 | 505                 | 174                                        | Bothidae                                 | 67                               | 2.0                  | 5.                  |
| <i>,</i> <u>.</u> . | /                    | ,,,                 | -1.                                        | Bothidae - Bothus sp.                    | 50                               | 2.4                  | 3.                  |
|                     |                      |                     |                                            | Bothidae - Bothus ocellatus              | 74                               | 2.1                  | 5.                  |
|                     |                      |                     |                                            | Bothidae - Cyclopsetta sp.               | 27                               | 3.4                  | 5.                  |
|                     |                      |                     |                                            | Bothidae - Syacium sp.                   | 84                               | 2.5                  | 5.                  |
|                     | •                    |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 181                              | 2.2                  | 9.                  |
|                     | •                    |                     |                                            | Callionymidae                            | 3                                | 3.3                  | 3.                  |
|                     |                      |                     |                                            | Carangidae                               | 7                                | 3.2                  | 6.                  |
|                     |                      |                     |                                            | Clupeidae - Opisthonema oglinum          | 3                                | 10.9                 | 10.                 |
|                     |                      |                     |                                            | Congridae                                | 3                                | 8.5                  | 8.                  |
|                     |                      |                     |                                            | Cynoglossidae - <u>Symphurus</u> sp.     | 100                              | 2.5                  | 7.                  |
|                     |                      |                     |                                            | Engraulidae                              | 10                               | 4.6                  | 6.                  |
|                     |                      |                     |                                            | Engraulidae - Anchoa sp.                 | 3                                | 12.2                 | 12.                 |
|                     |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 3                                | 7.7                  | 7.                  |
|                     |                      |                     |                                            | Gobiidae                                 | 345                              | 2.8                  | 6.                  |
|                     |                      |                     |                                            | Lutjanidae                               | 13                               | 2.6                  | 4.                  |
|                     |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 17                               | 4.5                  | 9.<br>4.            |
|                     |                      |                     |                                            | Myctophidae                              | 10                               | 3.3                  | 4.<br>5.            |
|                     |                      |                     |                                            | Myctophidae - Diaphus sp.                | 171                              | 2.9<br>1.9           | 2.                  |
|                     |                      |                     |                                            | Ogcocephalidae                           | 7                                | 4.2                  | 14.                 |
|                     |                      |                     |                                            | Ophichthidae                             | 27                               | 4.2                  | T.4.                |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 9-14           | II-5                 | 505                 |                                            | Ophidiidae                               | 30                               | 2.2                  | 11.5                 |
|                |                      |                     |                                            | Paralepididae                            | 3                                | 3.1                  | 3.1                  |
|                |                      |                     |                                            | Scombridae                               | 10                               | 2.0                  | 2.6                  |
|                |                      |                     |                                            | Scombridae - Auxis sp.                   | - 3                              | 2.8                  | 2.8                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus      | 7                                | 3.0                  | 3.6                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 60                               | 2.5                  | 6.3                  |
|                |                      |                     |                                            | Scorpaenidae - Scorpaena sp.             | 3                                | 3.0                  | 3.0                  |
|                |                      |                     |                                            | Serranidae                               | 27                               | 2.5                  | 5.0                  |
|                |                      |                     |                                            | Serranidae - <u>Diplectrum</u> sp.       | 3                                | 3.9                  | 3.9                  |
|                |                      |                     |                                            | Synodontidae                             | 7                                | 3.2                  | 3.5                  |
|                |                      |                     |                                            | Synodontidae - <u>Saurida</u> sp.        | 7                                | 3.5                  | 5.3                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.               | 13                               | 2.6                  | 5.4                  |
|                |                      |                     |                                            | Tetraodontidae                           | 13                               | 2.0                  | 2.7                  |
|                |                      |                     |                                            | Trichiuridae - Trichiurus lepturus       | 3                                | 5.1                  | 5.1                  |
|                |                      |                     |                                            | Unknown                                  | 408                              | 1.4                  | 3.2                  |
| 9-14           | II-5                 | 333                 | 180                                        | Bothidae                                 | 20                               | 4.1                  | 5.1                  |
|                |                      |                     | ,                                          | Bothidae - Bothus sp.                    | 92                               | 1.8                  | 5.1                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus              | 72                               | 2.9                  | 4.0                  |
|                |                      |                     |                                            | Bothidae - Cyclopsetta sp.               | 16                               | 2.1                  | 5.2                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 108                              | 1.9                  | 8.1                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 325                              | 1.5                  | 9.4                  |
|                |                      |                     |                                            | Carangidae                               | 4                                | 2.6                  | 2.6                  |
|                |                      |                     |                                            | Congridae                                | 4                                | 14.0                 | 14.0                 |
|                |                      |                     |                                            | Cynoglossidae - <u>Symphurus</u> sp.     | 112                              | 2.2                  | 6.3                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus plagiusa       | 4                                | 11.0                 | 11.0                 |
|                |                      |                     |                                            | Engraulidae                              | 1,5                              | 3.2                  | 5.1                  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp.                 | 14                               | 7.4                  | 7.4                  |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 4                                | 8.6                  | 8.6                  |
|                |                      |                     |                                            | Gobiidae                                 | 469                              | 1.8                  | 10.0                 |
|                |                      |                     |                                            | Grammistidae                             | 14                               | 3.7                  | 3.7                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 9-14           | II-5                 | 333                 |                                | Lutjanidae - Lutjanus sp.                | 14                               | 3.6                  | 3.6                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 16                               | 9.9                  | 9.9                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.                | 196                              | 2.5                  | 5.5                  |
|                |                      |                     |                                | Myctophidae - Myctophum obtusirostre     | 8 .                              | 3.0                  | 3.7                  |
|                |                      |                     |                                | Ophichthidae                             | 16                               | 5.0                  | 7.0                  |
|                |                      |                     |                                | Ophidiidae                               | 36                               | 4.8                  | 15.0                 |
|                |                      |                     |                                | Pomadasyidae                             | 12                               | 2.1                  | 2.5                  |
|                |                      |                     |                                | Scombridae                               | 28                               | 2.1                  | 3.2                  |
|                |                      |                     | •                              | Scombridae - Euthynnus alletteratus      | 16                               | 4.0                  | 7.2                  |
|                |                      |                     |                                | Scombridae - Scomberomorus cavalla       | 36                               | 2.3                  | 6.8                  |
|                |                      |                     |                                | Scombridae - Scomberomorus maculatus     | 4                                | 2.2                  | 2.2                  |
|                |                      |                     |                                | Scorpaenidae - Scorpaena sp.             | 14                               | 3.9                  | 3.9                  |
|                |                      |                     |                                | Serranidae                               | 8                                | 3.0                  | 4.2                  |
|                |                      |                     |                                | Serranidae - Diplectrum sp.              | 8                                | 5.2                  | 5.7                  |
|                |                      |                     |                                | Synodontidae                             | 8                                | 2.7                  | 2.7                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.               | 28                               | 3.2                  | 7.7                  |
|                |                      |                     |                                | Synodontidae - Synodus sp.               | 12 .                             | 2.6                  | 3.2                  |
|                |                      |                     |                                | Tetraodontidae                           | 20                               | 1.4                  | 3.5                  |
|                |                      |                     |                                | Unknown                                  | 248                              | 1.5                  | 6.0                  |
| 9-14           | II <b>-</b> 6        | 505                 | 163                            | Bothidae                                 | 22                               | 2.3                  | 5.2                  |
|                |                      |                     |                                | Bothidae - Bothus ocellatus              | 265                              | 2.2                  | 5.3                  |
|                |                      |                     |                                | Bothidae - Cyclopsetta sp.               | 6                                | 3.4                  | 7.2                  |
|                |                      |                     |                                | Bothidae - Syacium sp.                   | 147                              | 1.7                  | 4.3                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 261                              | 1.7                  | 9.0                  |
|                |                      |                     |                                | Callionymidae - Callionymus sp.          | 6                                | 2.8                  | 3.2                  |
|                |                      |                     |                                | Carangidae - Oligoplites saurus          | 3                                | 3.3                  | 3.3                  |
|                |                      |                     |                                | Carangidae - Vomer setapinnis            | 16                               | 3.2                  | 5.3                  |
|                |                      |                     |                                | Clupeidae                                | 3                                | 2.9                  | 2.9                  |
|                |                      |                     |                                | Clupeidae - Opisthonema oglinum          | 3                                | 10.4                 | 10.4                 |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Number<br>larvae per<br>1,000 m <sup>3</sup>                                                                  | Min.<br>size<br>(mm)                                                                                  | Max.<br>size<br>(mm)                                                                                     |
|-------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 9-14        | 11-6                 | 505                 |                                            | Congridae Cynoglossidae - Symphurus civitatus Engraulidae - Engraulis eurystole Gobiidae Lutjanidae Microdesmidae - Microdesmus sp. Myctophidae - Diaphus sp. Nettastomidae Ogcocephalidae Ophichthidae Ophichthidae Ophidiidae - Rissola sp. Sciaenidae - Cynoscion nothus Scombridae Scombridae - Auxis sp. Scombridae - Katsuwonus pelamis Scombridae - Scomberomorus cavalla Scombridae - Thunnus sp. Serranidae Sphyraenidae Synodontidae - Saurida sp. Tetraodontidae - Sphoeroides sp. | 10<br>153<br>32<br>465<br>26<br>38<br>185<br>3<br>10<br>102<br>3<br>6<br>6<br>54<br>6<br>38<br>3<br>10<br>102 | 12.38 5 0 6 2 2 8 2 2 2 4 1 4 2 3 5 9 8 5 8 8 2 2 2 4 1 4 2 3 5 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 | 16.0<br>7.2<br>10.0<br>6.5<br>5.8<br>2.6<br>19.0<br>2.5<br>4.5<br>2.5<br>5.5<br>5.5<br>8.3<br>2.3<br>3.2 |
| 9-14        | II <b>-</b> 6        | 333                 | 384                                        | Triglidae - Prionotus sp. Unknown  Bothidae Bothidae - Bothus sp. Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bregmacerotidae - Bregmaceros atlanticus                                                                                                                                                                                                                                                                                                      | 18<br>29<br>285<br>15<br>216<br>424                                                                           | 2.4<br>3.3<br>2.3<br>2.2<br>4.2<br>1.8                                                                | 6.0<br>4.7<br>6.1<br>16.5<br>5.3<br>9.7                                                                  |

Appendix table 1. (Continued)

| Date   | Transect-     | Mesh<br>size | Number<br>eggs per |                                     | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|---------------|--------------|--------------------|-------------------------------------|----------------------|--------------|--------------|
| (1976) | station       | (µ)          | 1,000 m3           | Larvae                              | 1,000 m3             | (mm)         | (mm)         |
| 9-14   | II <b>-</b> 6 | 333          |                    | Carangidae                          | 7                    | 3.2          | 3.5          |
| 9-14   | 11-0          | 222          |                    | Carangidae - Decapterus punctatus   | 14                   | 3.3          | 3.3          |
|        |               |              | •                  | Carangidae - Vomer setapinnis       | 15                   | 3.9          | 6.5          |
|        |               |              |                    | Congridae                           | 11                   | 10.0         | 18.0         |
|        |               |              |                    | Cynoglossidae - Symphurus sp.       | 103                  | 2.4          | 6.2          |
|        |               |              | ٠.                 | Cynoglossidae - Symphurus plagiusa  | 4                    | 10.5         | 10.5         |
|        |               |              |                    | Engraulidae                         | 11                   | 5.9          | 6.6          |
|        |               |              |                    | Engraulidae - Engraulis eurystole   | 44                   | 7.4          | 10.8         |
|        |               |              |                    | Gobiidae                            | 443                  | 1.7          | 5.6          |
|        |               |              |                    | Grammistidae - Rypticus saponaceus  | 4                    | 3.7          | 3.7          |
|        |               |              |                    | Labridae                            | . 4                  | 4.5          | 4.5          |
|        |               |              |                    | Lutjanidae - Lutjanus sp.           | 15                   | 3.2          | 5.8          |
|        |               |              |                    | Microdesmidae - Microdesmus sp.     | 48                   | 3.5          | 9.0          |
|        |               |              | •                  | Myctophidae                         | 11                   | 2.8          | 4.4          |
|        |               |              |                    | Myctophidae - Diaphus sp.           | 329                  | 2.7          | 4.7          |
|        |               |              |                    | Ophichthidae                        | 15                   | 3.5          | 14.0         |
|        |               |              |                    | Ophidiidae                          | 37                   | 2.5          | 11.0         |
|        |               |              |                    | Scombridae                          | 7                    | 2.4          | 2.6          |
|        |               |              | •                  | Scombridae - Auxis sp.              | 22                   | 3.0          | 6.5          |
|        |               | *            |                    | Scombridae - Euthynnus alletteratus | 7                    | 6.2          | 8.7          |
|        |               |              |                    | Scombridae - Scomberomorus cavalla  | 51                   | 2.2          | 4.4          |
|        |               |              |                    | Scombridae - Thunnus atlanticus     | 4                    | 5.2          | 5.2          |
|        |               |              |                    | Serranidae                          | 7                    | 3.9          | 5.3          |
|        |               |              |                    | Serranidae - Diplectrum sp.         | 14                   | 3.8          | 3.8          |
|        |               |              |                    | Sphyraenidae - Sphyraena sp.        | 15                   | 2.1          | 3.5          |
|        |               |              |                    | Sphyraenidae - Sphyraena guachancho | 7                    | 6.7          | 7.1          |
|        |               |              |                    | Synodontidae                        | 4                    | 3.3          | 3.3          |
|        |               |              |                    | Synodontidae - Saurida sp.          | 165                  | 1.7          | 4.1          |
|        |               |              |                    | Tetraodontidae                      | 7                    | 2.2          | 3.2          |
|        |               |              |                    | Unknown                             | 337                  | 1.2          | 9.0          |

| Date   |               |      | Number               |                                                                              | Number               | Min. | Max. |
|--------|---------------|------|----------------------|------------------------------------------------------------------------------|----------------------|------|------|
|        | Transect-     | size | eggs per             |                                                                              | larvae per           | size | size |
| (1976) | station       | (µ)  | 1,000 m <sup>3</sup> | Larvae                                                                       | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 9-13   | II <b>-</b> 7 | 505  | 117                  | Blenniidae                                                                   | 2                    | 3.1  | 3.1  |
| J-13   | 111           | 707  | <u> </u>             | Bothidae                                                                     | 28                   | 2.9  | 5.9  |
|        |               |      |                      | Bothidae - Bothus sp.                                                        | 89                   | 2.4  | 6.6  |
|        |               |      |                      | Bothidae - Bothus ocellatus                                                  | 195                  | 3.1  | 6.5  |
|        |               |      |                      | Bothidac - Cyclopsetta sp.                                                   | 6                    | 3.2  | 5.5  |
|        |               |      |                      | Bothidae - Syacium sp.                                                       | 221                  | 2.0  | 5.9  |
|        |               |      |                      | Bregmacerotidae - Bregmaceros sp.                                            | 6                    | 1.7  | 3.1  |
|        |               |      |                      | Bregmacerotidae - Bregmaceros atlanticus                                     | 870                  | 1.9  | 9.3  |
|        |               |      |                      | Carangidae - Decapterus punctatus                                            | 2                    | 4.7  | 4.7  |
|        |               |      |                      | Carangidae - <u>Decapterus</u> <u>punctatus</u><br>Carangidae - Selene vomer | 6                    | 3.5  | 7.4  |
|        |               |      |                      |                                                                              | 4                    | 7.4  | 10.5 |
|        |               |      |                      | Clupeidae - Harengula jaguana                                                | 9                    | 8.8  | 11.5 |
|        |               |      |                      | Clupeidae - Opisthonema oglinum                                              | 9<br>11              | 11.6 | 16.4 |
|        |               |      |                      | Congridae                                                                    | 70                   | 2.3  | 8.6  |
|        |               |      |                      | Cynoglossidae - Symphurus sp.                                                | 28                   | 3.1  | 8.8  |
|        |               |      |                      | Engraulidae                                                                  | 20<br>14             |      |      |
|        |               |      | •                    | Engraulidae - Anchoa sp.                                                     |                      | 8.5  | 11.5 |
|        |               |      |                      | Engraulidae - Engraulis eurystole                                            | 42                   | 8.4  | 15.4 |
|        |               |      |                      | Gerreidae                                                                    | 2                    | 3.9  | 3.9  |
|        |               |      |                      | Gobiidae                                                                     | 626                  | 2.9  | 7.9  |
|        | •             |      |                      | Gonostomatidae - Maurolicus sp.                                              | 98                   | 2.4  | 5.6  |
|        |               |      |                      | Lutjanidae                                                                   | 23                   | 2.6  | 6.3  |
|        |               |      |                      | Microdesmidae - Microdesmus sp.                                              | 42                   | 3.5  | 11.2 |
|        |               |      |                      | Mugilidae - <u>Mugil</u> sp.                                                 | 2                    | 3.2  | 3.2  |
|        |               |      |                      | Myctophidae                                                                  | 11                   | 2.5  | 5.2  |
|        |               |      |                      | Myctophidae - Ceratoscopelus sp.                                             | 4                    | 2.8  | 2.9  |
|        |               |      |                      | Myctophidae - Diaphus sp.                                                    | 121                  | 2.7  | 10.0 |
| k      |               |      |                      | Myctophidae - Myctophum sp.                                                  | 2                    | 2.8  | 2.8  |
|        |               |      |                      | Ogcocephalidae                                                               | 6                    | 1.9  | 2.6  |
|        |               |      |                      | Ophichthidae                                                                 | 6                    | 4.5  | 22.4 |
|        |               |      |                      | Ophidiidae                                                                   | 34                   | 3.5  | 11.5 |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                                                                      | Number<br>larvae per<br>1,000 m <sup>3</sup>                                           | Min.<br>size<br>(mm)                                                              | Max.<br>size<br>(mm)                                                        |
|----------------|----------------------|---------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 9-13           | II-7                 | 505                 |                                | Paralepididae Scaridae Sciaenidae - Cynoscion arenarius Sciaenidae - Larimus fasciatus Scombridae Scombridae - Auxis sp. Scombridae - Euthynnus alletteratus Scombridae - Scomberomorus cavalla Scombridae - Thunnus sp. Scorpaenidae - Scorpaena sp. Serranidae Serranidae - Diplectrum sp. Sphyraenidae - Sphyraena sp. Synodontidae Synodontidae - Saurida sp. Synodontidae - Synodus sp. Tetraodontidae | 9<br>2<br>4<br>11<br>34<br>9<br>32<br>2<br>26<br>4<br>17<br>17<br>121<br>11<br>2<br>83 | 1.9<br>3.2<br>2.4<br>5.9<br>5.6<br>2.2<br>2.3<br>3.3<br>3.5<br>5.6                | 2.1<br>3.2<br>4.6<br>6.4<br>2.9<br>9.3<br>9.5<br>10.5<br>11.3<br>26.1       |
| 9-13           | II-7                 | 333                 | 122                            | Unknown  Balistidae - Monacanthus sp. Bathylagidae - Bathylagus sp. Bothidae  Bothidae - Bothus sp. Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bregmacerotidae - Bregmaceros sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae  Clupeidae - Opisthonema oglinum Congridae                                                                                          | 2<br>60<br>103<br>199<br>5<br>254<br>2<br>1,244<br>7<br>12                             | 5.0<br>4.8<br>2.4<br>2.2<br>2.6<br>3.8<br>2.3<br>4.8<br>1.4<br>3.3<br>8.8<br>10.3 | 5.0<br>4.8<br>6.2<br>6.5<br>6.8<br>5.8<br>6.4<br>4.8<br>11.8<br>4.5<br>11.4 |

Appendix table 1. (Continued)

| Date (1976)   | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                 | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|---------------|----------------------|---------------------|--------------------------------------------|----------------------------------------|----------------------------------------------|----------------------|----------------------|
|               |                      |                     |                                            |                                        |                                              |                      |                      |
| 9 <b>-</b> 13 | II <b>-</b> 7        | 333                 |                                            | Cynoglossidae - Symphurus sp.          | 98                                           | 2.1                  | 7.7                  |
|               |                      |                     |                                            | Engraulidae                            | 5                                            | 2.8                  | 6.3                  |
|               |                      |                     |                                            | Engraulidae - Anchoa sp.               | , 7                                          | 7.6                  | 9.0                  |
|               |                      |                     |                                            | Engraulidae - Engraulis eurystole      | 41                                           | 8.5                  | 16.5                 |
|               |                      |                     |                                            | Gobiidae                               | 610                                          | 1.7                  | 7.6                  |
|               |                      |                     |                                            | Gonostomatidae - <u>Maurolicus</u> sp. | 136                                          | 2.5                  | 6.0                  |
|               |                      |                     |                                            | Lutjanidae                             | 17                                           | 2.7                  | 6.9                  |
|               |                      |                     |                                            | Microdesmidae - Microdesmus sp.        | 53                                           | 2.1                  | 9.3                  |
|               |                      |                     | •                                          | Mugilidae - <u>Mugil</u> sp.           | 2                                            | 2.5                  | 2.5                  |
|               |                      |                     |                                            | Myctophidae                            | 12                                           | 2.7                  | 3.4                  |
|               |                      |                     |                                            | Myctophidae - Ceratoscopelus sp.       | 2                                            | 2.5                  | 2.5                  |
|               |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi  | 5                                            | 2.6                  | 3.3                  |
|               |                      |                     |                                            | Myctophidae - Diaphus sp.              | 160                                          | 2.5                  | 8.9                  |
|               |                      |                     |                                            | Myctophidae - Lampadena sp.            | 2                                            | 5.3                  | 5.3                  |
|               |                      |                     |                                            | Myctophidae - Myctophum obtusirostre   | 2                                            | 3.9                  | 3.9                  |
|               |                      |                     |                                            | Ogcocephalidae                         | 2                                            | 2.6                  | 2.6                  |
|               |                      |                     |                                            | Ophichthidae                           | 19                                           | 3.0                  | 28.0                 |
|               |                      |                     |                                            | Ophidiidae                             | 31                                           | 3.6                  | 12.5                 |
|               |                      |                     |                                            | Paralepididae                          | 7                                            | 2.7                  | 3.4                  |
|               |                      |                     |                                            | Scaridae                               | 2                                            | 5.9                  | 5.9                  |
|               |                      |                     |                                            | Scombridae                             | 34                                           | 2.0                  | 4.8                  |
|               |                      |                     |                                            | Scombridae - Auxis sp.                 | 26                                           | 3.2                  | 6.5                  |
|               |                      |                     |                                            | Scombridae - Euthynnus alletteratus    | 7                                            | 4.5                  | 7.5                  |
|               |                      |                     |                                            | Scombridae - Scomberomorus cavalla     | 41                                           | 2.1                  | 5.2                  |
|               |                      |                     |                                            | Scorpaenidae - Scorpaena sp.           | 5                                            | 4.7                  | 5.4                  |
|               |                      |                     |                                            | Serranidae                             | 19                                           | 2.9                  | 8.0                  |
|               |                      |                     |                                            | Sphyraenidae - Sphyraena sp.           | 14                                           | 2.4                  | 7.4                  |
|               |                      |                     |                                            | Synodontidae                           | 17                                           | 2.1                  | 4.1                  |
|               |                      |                     |                                            | Synodontidae - Saurida sp.             | 136                                          | 2.9                  | 9.8                  |
|               |                      |                     | ,                                          | Synodontidae - Synodus sp.             | 14                                           | 2.8                  | 7.2                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Number<br>larvae per<br>1,000 m3                                                                            | Min.<br>size<br>(mm)                                                                                                                                          | Max.<br>size<br>(mm)                                                                                            |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 9-13           | II-7                 | 333                 |                                            | Tetraodontidae<br>Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2<br>242                                                                                                    | 3.0<br>1.2                                                                                                                                                    | 3.0<br>9.5                                                                                                      |
| 9-12           | III-l                | 505                 | 445                                        | Bothidae - Bothus ocellatus  Bothidae - Syacium sp.  Carangidae  Clupeidae  Clupeidae - Opisthonema oglinum  Cynoglossidae - Symphurus sp.  Engraulidae  Engraulidae - Anchoa sp.  Engraulidae - Engraulis eurystole  Gobiidae  Ophichthidae  Ophichthidae  Ophidiidae  Sciaenidae - Cynoscion sp.  Sciaenidae - Larimus fasciatus  Sciaenidae - Menticirrhus sp.  Scombridae - Euthynnus alletteratus  Scombridae - Scomberomorus maculatus  Serranidae  Unknown | 7<br>44<br>146<br>197<br>117<br>7<br>51<br>5,029<br>109<br>7<br>423<br>22<br>7<br>401<br>22<br>7<br>29<br>7 | 4.8<br>3.5<br>1.5<br>1.3<br>2.3<br>7.8<br>2.7<br>9.1<br>2.7<br>9.3<br>4.3<br>1.3<br>4.3<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5 | 4.8<br>10.1<br>7.4<br>3.7<br>8.3<br>6.9<br>8.3<br>11.1<br>9.8<br>7.1<br>10.2<br>7.4<br>3.4<br>2.7<br>6.9<br>5.5 |
| 9-12           | III-1                | 333                 | 981                                        | Bothidae  Bothidae - Bothus ocellatus  Bothidae - Syacium sp.  Carangidae  Carangidae - Chloroscombrus chrysurus  Clupeidae                                                                                                                                                                                                                                                                                                                                       | 75<br>8<br>442<br>524<br>8<br>157                                                                           | 1.3<br>2.6<br>1.3<br>1.6<br>4.6                                                                                                                               | 5.5<br>2.6<br>6.0<br>4.0<br>4.6<br>7.5                                                                          |

Appendix table 1. (Continued)

| D-4-           | Marine and           | Mesh | Number               |                                          | Number                             | Min.     | Max.         |
|----------------|----------------------|------|----------------------|------------------------------------------|------------------------------------|----------|--------------|
| Date<br>(1976) | Transect-<br>station | size | eggs per<br>1,000 m3 | Larvae                                   | larvae per<br>1,000 m <sup>3</sup> | size     | size<br>(mm) |
| (1910)         | SCACTON              | (µ)  | 1,000 m3             | Darvae                                   | 1,000 m                            | (111111) | (111111)     |
| 9-12           | III-1                | 333  |                      | Clupeidae - Harengula jaguana            | 8                                  | 10.3     | 10.3         |
|                |                      |      |                      | Clupeidae - Opisthonema oglinum          | 37                                 | 6.5      | 9.2          |
|                |                      |      |                      | Cynoglossidae - Symphurus sp.            | 30                                 | 2.0      | 4.0          |
|                |                      | •    |                      | Engraulidae                              | 7,006                              | 2.2      | 7.9          |
|                |                      |      |                      | Engraulidae - Anchoa sp.                 | 262                                | 6.5      | 11.0         |
|                |                      |      |                      | Engraulidae - Engraulis eurystole        | 120                                | 5.5      | 9.8          |
|                |                      |      |                      | Gobiidae                                 | 838                                | 1.0      | 7.0          |
|                |                      |      |                      | Ophichthidae - Myrophis sp.              | 8                                  | 44.0     | 44.0         |
|                |                      |      | •                    | Ophidiidae                               | 37                                 | 2.0      | 3.5          |
|                |                      |      |                      | Sciaenidae                               | 359                                | 1.3      | 2.9          |
|                |                      |      |                      | Sciaenidae - Cynoscion sp.               | 217                                | 1.7      | 3.3          |
|                |                      |      |                      | Sciaenidae - Menticirrhus sp.            | 8                                  | 2.8      | 2.8          |
|                |                      |      |                      | Scombridae - Euthynnus alletteratus      | 8                                  | 7.2      | 7.2          |
|                |                      |      |                      | Scombridae - Scomberomorus cavalla       | 8                                  | 1.8      | 1.8          |
|                |                      |      |                      | Scombridae - Scomberomorus maculatus     | 60                                 | 1.7      | 5.5          |
|                |                      |      |                      | Serranidae - Serraniculus pumilio        | 8                                  | 3.0      | 3.0          |
|                |                      |      |                      | Tetraodontidae - Sphoeroides sp.         | 8                                  | 5.0      | 5.0          |
|                |                      |      |                      | Unknown                                  | 868                                | 0.9      | 14.0         |
| 9-13           | III-2                | 505  | 1,421                | Bothidae                                 | 6                                  | 2.0      | 2.0          |
| / _5           |                      | , -, | -,                   | Bothidae - Bothus sp.                    | 67                                 | 1.8      | 3.5          |
|                |                      |      |                      | Bothidae - Bothus ocellatus              | 28                                 | 3.5      | 8.5          |
|                |                      |      |                      | Bothidae - Cyclopsetta sp.               | 33                                 | 3.5      | 4.2          |
|                |                      |      |                      | Bothidae - Paralichthys sp.              | 11                                 | 2.9      | 3.0          |
|                |                      |      |                      | Bothidae - Syacium sp.                   | 340                                | 1.8      | 6.5          |
|                |                      |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 719                                | 2.3      | 8.0          |
|                |                      |      |                      | Carangidae                               | 39                                 | 2.0      | 5.0          |
|                |                      |      |                      | Carangidae - Chloroscombrus chrysurus    | 6                                  | 3.3      | 3.3          |
|                |                      |      |                      | Clupeidae                                | 6                                  | 4.5      | 4.5          |
|                |                      |      |                      | Clupeidae - Harengula jaguana            | 6                                  | 7.3      | 7.3          |
|                |                      |      |                      | Cynoglossidae - Symphurus sp.            | 162                                | 1.8      | 8.2          |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                                                                                                                                                                                                                                                                                                  | Number<br>larvae per<br>1,000 m3                                                          | Min.<br>size<br>(mm)                                                                                            | Max.<br>size<br>(mm)                                                                                                                            |
|----------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 9–13           | III-2                | 505                 |                                            | Engraulidae - Anchoa sp. Engraulidae - Engraulis eurystole Gobiidae Lutjanidae - Lutjanus sp. Microdesmidae - Microdesmus sp. Ophichthidae Ophidiidae Paralepididae Scombridae - Auxis sp. Scombridae - Scomberomorus cavalla Serranidae - Diplectrum sp. Sphyraenidae - Sphyraena sp. Sphyraenidae - Sphyraena guachancho Synodontidae Synodontidae - Surida sp. Synodontidae - Synodus sp. Trichiuridae - Trichiurus lepturus Unknown | 50<br>6<br>6<br>474<br>39<br>128<br>6<br>11<br>6<br>17<br>72<br>6<br>22<br>173<br>17<br>6 | 2.4<br>11.4<br>11.0<br>2.3<br>3.8<br>11.5<br>4.3<br>5.8<br>2.8<br>3.8<br>2.8<br>3.8<br>2.5<br>4.9<br>2.5<br>4.6 | 9.2<br>11.4<br>11.0<br>5.8<br>4.2<br>11.0<br>11.5<br>10.1<br>5.9<br>2.8<br>4.3<br>7.0<br>3.8<br>3.1<br>11.8<br>4.2<br>6.6<br>5.2<br>4.9<br>12.7 |
| 9–13           | III-2                | 333                 | 1,441                                      | Apogonidae Bothidae - Bothus sp. Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Bregmacerotidae - Bregmaceros atlanticus Carangidae Carangidae - Caranx sp. Clupeidae                                                                                                                                                                                                                                    | 18<br>18<br>67<br>18<br>31<br>484<br>662<br>31<br>6                                       | 2.9<br>2.0<br>1.6<br>3.1<br>2.4<br>1.6<br>2.0<br>3.0<br>4.7<br>3.0                                              | 5.6<br>2.3<br>4.0<br>4.1<br>5.8<br>8.6<br>5.7<br>4.7                                                                                            |

Appendix table 1. (Continued)

| <del></del>   |           | Mesh | Number               |                                    | Number               | Min.       | Max.        |
|---------------|-----------|------|----------------------|------------------------------------|----------------------|------------|-------------|
| Date          | Transect- | size | eggs per             |                                    | larvae per           | size       | size        |
| (1976)        | station   | (µ)  | 1,000 m <sup>3</sup> | Larvae                             | 1,000 m <sup>3</sup> | (mm)       | (mm)        |
|               |           |      |                      |                                    | 21.2                 | 2 77       | 6 2         |
| 9 <b>-</b> 13 | III-2     | 333  |                      | Cynoglossidae - Symphurus sp.      | 343                  | 1.7<br>6.8 | 6.3<br>6.8  |
|               |           |      |                      | Cynoglossidae - Symphurus plagiusa | 6                    |            |             |
|               |           |      |                      | Engraulidae                        | 92                   | 2.1        | 8.4         |
|               |           |      |                      | Engraulidae - Engraulis eurystole  | 3 01:0               | 9.5        | 9.5         |
|               |           |      |                      | Gobiidae                           | 1,042                | 1.3        | 10.5        |
|               |           |      |                      | Intjanidae                         | 31                   | 2.5        | 3.3         |
|               |           |      |                      | Lutjanidae - <u>Lutjanus</u> sp.   | 18                   | 3.6        | 4.5         |
|               |           |      |                      | Microdesmidae - Microdesmus sp.    | 184                  | 1.8        | 9.9         |
|               |           |      |                      | Muraenidae - Gymnothorax sp.       | 12<br>6              | 13.0       | 21.0        |
|               |           |      |                      | Myctophidae - <u>Diaphus</u> sp.   |                      | 4.1        | 4.1<br>16.0 |
|               |           |      |                      | Ophichthidae                       | 12<br>61             | 15.0       |             |
|               |           |      |                      | Ophidiidae                         | 6                    | 2.2<br>2.7 | 6.7         |
|               |           |      |                      | Scombridae                         | 25                   | 2.4        | 2.7<br>4.1  |
|               |           |      |                      | Scombridae - Auxis sp.             |                      |            |             |
|               |           |      |                      | Scombridae - Scomberomorus cavalla | 178                  | 2.1        | 6.0         |
|               |           |      |                      | Serranidae                         | 104                  | 1.7        | 2.8         |
|               |           |      |                      | Serranidae - <u>Diplectrum</u> sp. | 12                   | 3.3        | 3.6         |
|               |           |      |                      | Sphyraenidae - Sphyraena sp.       | 110                  | 1.8        | 5.2         |
|               |           |      |                      | Synodontidae                       | 110                  | 1.9        | 4.5         |
|               |           |      |                      | Synodontidae - Saurida sp.         | 270                  | 2.1        | 8.0         |
|               |           |      |                      | Synodontidae - Synodus sp.         | 18                   | 3.0        | 4.3         |
|               |           |      |                      | Trichiuridae - Trichiurus lepturus | 6                    | 5.6        | 5.6         |
|               |           |      |                      | Unknown                            | 227                  | 1.5        | 14.0        |
| 9-13          | III-3     | 505  | 536                  | Apogonidae                         | 14                   | 3.0        | 3.0         |
| 9-13          | 111-5     |      | 750                  | Bothidae                           | 20                   | 4.5        | 5.2         |
|               |           |      |                      | Bothidae - Bothus sp.              | 35                   | 2.1        | 3.4         |
|               |           |      |                      | Bothidae - Bothus ocellatus        | 12                   | 3.2        | 4.1         |
|               |           |      |                      | Bothidae - Cyclopsetta sp.         | 8                    | 2.8        | 4.5         |
|               |           |      |                      | Bothidae - Syacium sp.             | 47                   | 2.6        | 4.7         |
|               |           |      |                      | DO VILLEGIO DI COLORIO DE P        | • •                  |            | - •         |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 9-13           | III-3                | 505                 | •                                          | Bregmacerotidae - Bregmaceros atlanticus | 974                                          | 1.7                  | 8.3                  |
| ,              | 2                    | , - ,               |                                            | Carangidae                               | 16                                           | 3.2                  | 4.3                  |
|                |                      |                     |                                            | Carangidae - Decapterus punctatus        | 4                                            | 2.8                  | 2.8                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 67                                           | 2.6                  | 6.6                  |
|                |                      |                     |                                            | Engraulidae                              | 8                                            | 3.7                  | 4.7                  |
|                |                      |                     |                                            | Engraulidae - Eungraulis eurystole       | 20                                           | 6.4                  | 8.8                  |
|                |                      |                     |                                            | Gobiidae                                 | 262                                          | 2.2                  | 7.0                  |
|                |                      |                     |                                            | Gonostomatidae - Maurolicus sp.          | 59                                           | 2.5                  | 4.2                  |
|                |                      |                     |                                            | Grammistidae - Rypticus sp.              | 14                                           | 2.9                  | 2.9                  |
|                |                      |                     |                                            | Lutjanidae                               | 16                                           | 2.6                  | 2.7                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 20                                           | 2.7                  | 4.8                  |
|                |                      |                     |                                            | Myctophidae                              | 4                                            | 4.4                  | 4.4                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis  | 14                                           | 3.8                  | 3.8                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus warmingi    | 4                                            | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 63                                           | 2.7                  | 3.9                  |
|                |                      |                     |                                            | Ophichthidae                             | 14                                           | 4.5                  | 4.5                  |
|                |                      |                     |                                            | Ophidiidae                               | 39                                           | 2.9                  | 9.5                  |
|                |                      |                     |                                            | Paralepididae                            | 8                                            | 2.9                  | 3.1                  |
|                |                      |                     |                                            | Priacanthidae                            | 4                                            | 2.6                  | 2.6                  |
|                |                      |                     |                                            | Scombridae                               | 16                                           | 2.3                  | 2.5                  |
|                |                      |                     |                                            | Scombridae - Euthynnus alletteratus      | 4                                            | 6.3                  | 6.3                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla       | 31                                           | 2.9                  | 4.9                  |
|                |                      |                     |                                            | Serranidae                               | 20                                           | 2.7                  | 4.1                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.             | 12                                           | 3.2                  | 4.7                  |
|                |                      |                     |                                            | Synodontidae - Saurida sp.               | 35                                           | 2.8                  | 4.4                  |
|                |                      |                     |                                            | Synodontidae - Synodus sp.               | 20                                           | 2.6                  | 7.2                  |
|                |                      |                     |                                            | Tetraodontidae - Sphoeroides sp.         | 4                                            | 4.5                  | 4.5                  |
|                |                      |                     |                                            | Unknown                                  | 70                                           | 1.7                  | 2.9                  |

|        |           | Mesh | Number               |                                          | Number               | Min.       | Max.       |
|--------|-----------|------|----------------------|------------------------------------------|----------------------|------------|------------|
| Date   | Transect- | size | eggs per             | _                                        | larvae per           | size       | size       |
| (1976) | station   | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm)       | (mm)       |
| 9-13   | III-3     | 333  | 161                  | Bothidae                                 | 56                   | 3.0        | 5.2        |
| J#J    | J         | 222  | 101                  | Bothidae - Bothus sp.                    | 22                   | 3.3        | 4.3        |
|        |           |      |                      | Bothidae - Bothus ocellatus              | 30                   | 3.6        | 4.0        |
|        |           |      |                      | Bothidae - Cyclopsetta sp.               | 13                   | 3.4        | 5.2        |
|        |           |      |                      | Bothidae - Syacium sp.                   | 74                   | 2.3        | 5.2        |
|        |           |      |                      | Bregmacerotidae - Bregmaceros sp.        | 9                    | 2.3        | 2.6        |
|        | •         |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 1,003                | 1.3        | 6.5        |
|        |           |      |                      | Carangidae                               | 9                    | 2.9        | 3.0        |
|        |           |      |                      | Clupeidae - Harengula jaguana            | 4                    | 5.5        | 5.5        |
|        |           |      |                      | Cynoglossidae - Symphurus sp.            | 56                   | 2.2        | 4.5        |
|        |           |      |                      | Engraulidae                              | 9                    | 5.6        | 9.6        |
|        |           |      |                      | Engraulidae - Engraulis eurystole        | 13                   | 7.5        | 11.0       |
|        |           |      |                      | Gempylidae                               | 4                    | 3.4        | 3.4        |
|        |           |      |                      | Gobiidae                                 | 321                  | 1.7        | 4.6        |
|        |           |      |                      | Gonostomatidae                           | 65                   | 2.5        | 4.4        |
|        |           |      |                      | Lutjanidae                               | 26                   | 2.8        | 6.1        |
|        |           |      |                      | Microdesmidae                            | 26                   | 2.7        | 6.2        |
|        |           |      |                      | Myctophidae - Diaphus sp.                | 74                   | 2.6        | 3.8        |
|        |           |      |                      | Ogcocephalidae                           | 4                    | 2.1        | 2,1        |
|        |           |      |                      | Ophichthidae                             | 22                   | 3.0        | 7.5        |
|        |           |      |                      | Ophidiidae                               | 56                   | 2.5        | 31.0       |
|        |           |      |                      | Paralepididae                            | 4                    | 2.9        | 2.9        |
|        |           |      |                      | Scombridae                               | 4                    | 2.4        | 2.4        |
|        |           |      |                      | Scombridae - Auxis sp.                   | 13                   | 3.2        | 4.0        |
|        |           |      |                      | Scombridae - Euthynnus alletteratus      | 14                   | 3.5        | 3.5        |
|        |           |      |                      | Scombridae - Scomberomorus cavalla       | 35                   | 2.9        | 4.5        |
|        |           |      |                      | Scorpaenidae - Scorpaena sp.             | . 4                  | 3.5        | 3.5        |
|        |           |      |                      | Serranidae                               | 43                   | 2.0        | 3.9        |
|        |           |      |                      | Synodontidae - Saurida sp.               | 26                   | 2.9        | 3.6        |
|        |           |      |                      | Synodontidae - Synodus sp.               | 13<br>248            | 2.8<br>1.3 | 3.2<br>8.1 |
|        |           |      |                      | Unknown                                  | 248                  | 1.3        | 0.1        |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                                                                                                                                                                                                                                                                                                                                 | Number<br>larvae per<br>1,000 m3                               | Min.<br>size<br>(mm)                                                               | Max.<br>size<br>(mm)                                                                |
|----------------|----------------------|---------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 9-12           | IV-1                 | 505                 | 1,851                          | Bothidae - Bothus sp. Bothidae - Bothus ocellatus Bothidae - Syacium sp. Clupeidae Gobiidae Microdesmidae - Microdesmus sp. Ophidiidae Scombridae - Scomberomorus cavalla Tetraodontidae Unknown                                                                                                                                                       | 29<br>48<br>29<br>58<br>107<br>19<br>10<br>29<br>10            | 2.2<br>3.0<br>2.5<br>2.8<br>2.4<br>4.6<br>5.6<br>2.8<br>2.2                        | 3.5<br>6.6<br>3.7<br>6.8<br>8.9<br>9.5<br>5.3<br>3.9<br>2.8                         |
| 9-12           | IV-1                 | 333                 | 5,829                          | Bothidae - Bothus sp.  Bothidae - Bothus ocellatus  Bothidae - Syacium sp.  Bothidae - Syacium gunteri  Clupeidae  Clupeidae  Clupeidae - Sardinella anchovia  Gobiidae  Grammistidae - Rypticus sp.  Microdesmidae - Microdesmus sp.  Scombridae - Scomberomorus cavalla  Scombridae - Scomberomorus maculatus  Sphyraenidae - Sphyraena sp.  Unknown | 31<br>20<br>41<br>10<br>10<br>10<br>61<br>10<br>10<br>41<br>10 | 1.9<br>3.2<br>9.4<br>4.2<br>10.5<br>1.6<br>3.3<br>21.0<br>3.3<br>3.2<br>3.4<br>5.1 | 2.8<br>4.1<br>3.8<br>9.4<br>4.2<br>10.5<br>4.0<br>3.3<br>21.0<br>3.5<br>3.4<br>13.4 |
| 9-11           | IV-2                 | 505                 | 90                             | Apogonidae Bothidae Bothidae - Bothus sp. Bothidae - Bothus ocellatus Bothidae - Cyclopsetta sp. Bothidae - Syacium sp. Clupeidae                                                                                                                                                                                                                      | 7<br>7<br>14<br>14<br>7<br>77<br>28                            | 3.2<br>5.3<br>4.3<br>5.5<br>4.1<br>2.9<br>2.7                                      | 3.2<br>5.3<br>4.4<br>6.4<br>4.1<br>5.1<br>6.9                                       |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                                                                                                                                              | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm)              | Max.<br>size<br>(mm)                |
|----------------|----------------------|---------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------|-------------------------------------|
| 9 <b>-</b> 11  | IV-2                 | 505                 |                                            | Clupeidae - <u>Harengula jaguana</u> Clupeidae - <u>Opisthonema oglinum</u> Clupeidae - <u>Sardinella anchovia</u> Cynoglossidae - <u>Symphurus</u> sp. Engraulidae | 97<br>63<br>21<br>7<br>42                    | 6.1<br>6.5<br>9.6<br>2.8<br>6.4   | 10.5<br>12.1<br>11.3<br>2.8<br>9.4  |
|                |                      |                     |                                            | Engraulidae - Anchoa sp. Engraulidae - Engraulis eurystole Gobiidae Lutjanidae Microdogradae                                                                        | 28<br>7<br>223<br>35                         | 7.2<br>8.3<br>2.2<br>2.2          | 8.8<br>8.3<br>7.6<br>3.8            |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.  Muraenidae - Gymnothorax sp.  Ophichthidae  Ophidiidae  Scombridae                                                                 | 90<br>7<br>7<br>14<br>14                     | 3.1<br>47.4<br>26.8<br>9.8<br>2.2 | 10.7<br>47.4<br>26.8<br>13.7<br>3.6 |
|                |                      |                     |                                            | Scombridae - Thunnus sp. Scorpaenidae Serranidae Sphyraenidae - Sphyraena sp.                                                                                       | 7<br>7<br>7<br>28                            | 4.4<br>3.1<br>4.5<br>3.5          | 3.1<br>4.5<br>4.3                   |
| 9-11           | IV-2                 | 333                 | 105                                        | Unknown  Bothidae - Bothus sp.  Bothidae - Syacium sp.                                                                                                              | 63<br>38<br>105                              | 1.9<br>1.9<br>3.0                 | 7.2<br>5.0<br>6.0                   |
|                |                      |                     |                                            | Carangidae  Carangidae - Vomer setapinnis  Clupeidae  Clupeidae - Harengula jaguana                                                                                 | 8<br>8<br>196<br>53<br>8                     | 4.3<br>2.9<br>2.3<br>6.1<br>6.2   | 4.3<br>2.9<br>6.5<br>12.0<br>6.2    |
|                | ,                    |                     |                                            | Clupeidae - <u>Opisthonema oglinum</u> Clupeidae - <u>Sardinella anchovia</u> Engraulidae Engraulidae - <u>Anchoa</u> sp.                                           | 6<br>45<br>83<br>15                          | 8.6<br>2.5<br>8.2                 | 13.0<br>8.3<br>8.7                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae ·                            | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-------------------------------------|----------------------------------|----------------------|----------------------|
| 9-11           | IV-2                 | 333                 |                                            | Gerreidae                           | 8                                | 4.5                  | 4.5                  |
| -              |                      |                     |                                            | Gobiidae                            | 391                              | 1.7                  | 9.0                  |
|                |                      |                     |                                            | Grammistidae - Rypticus sp.         | 8                                | 4.0                  | 4.0                  |
|                |                      |                     |                                            | Lutjanidae                          | 8                                | 2.7                  | 2.7                  |
|                |                      |                     |                                            | Lutjanidae - <u>Lutjanus</u> sp.    | 23                               | 4.7                  | 5.0                  |
|                | •                    |                     |                                            | Microdesmidae - Microdesmus sp.     | 98                               | 1.7                  | 8.3                  |
|                |                      |                     |                                            | Ogcocephalidae                      | 8                                | 2.3                  | 2.3                  |
|                |                      |                     |                                            | Ophidiidae                          | 15                               | 10.0                 | 14.0                 |
|                |                      |                     | · .                                        | Scombridae                          | 30                               | 1.9                  | 2.1                  |
|                |                      |                     |                                            | Scombridae - Auxis sp.              | 23                               | 5.0                  | 5.2                  |
|                |                      |                     |                                            | Scombridae - Scomberomorus cavalla  | 8                                | 2.8                  | 2.8                  |
|                |                      |                     |                                            | Scorpaenidae - Scorpaena sp.        | 8                                | 3.3                  | 3.3                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena sp.        | 8                                | 4.2                  | 4.2                  |
|                |                      |                     |                                            | Sphyraenidae - Sphyraena guachancho | . 8                              | 5.8                  | 5.8                  |
|                |                      | ,                   |                                            | Unknown                             | 98                               | 2.0                  | 7.0                  |
| 9-11           | IV-3                 | 505                 | 440                                        | Bothidae                            | 28                               | 2.6                  | 4.7                  |
| ,              |                      |                     |                                            | Bothidae - Bothus sp.               | 92                               | 2.2                  | 3.6                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus         | 43                               | 3.0                  | 7.0                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.              | 123                              | 2.1                  | 6.5                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.   | 9                                | 6.8                  | 8.4                  |
|                |                      |                     |                                            | Carangidae                          | 15                               | 1.9                  | 2.1                  |
|                |                      |                     |                                            | Carangidae - Caranx crysos          | 3                                | 5.6                  | 5.6                  |
|                |                      |                     |                                            | Carangidae - Decapterus punctatus   | 22                               | 2.7                  | 5.2                  |
|                |                      |                     |                                            | Clupeidae                           | 3                                | 2.5                  | 2.5                  |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.       | 370                              | 1.8                  | 6.4                  |
|                | •                    |                     |                                            | Cynoglossidae - Symphurus plagiusa  | . 3                              | 7.0                  | 7.0                  |
|                |                      |                     |                                            | Engraulidae                         | 74                               | 3.8                  | 7.7                  |
| •              |                      |                     |                                            | Engraulidae - Engraulis eurystole   | 34                               | 6.1                  | 11.0                 |
|                |                      |                     |                                            | Gerreidae                           | 6                                | 4.0                  | 8.2                  |

Appendix table 1. (Continued)

|        |                    | Mesh | Number               |                                       | Number               | Min. | Max. |
|--------|--------------------|------|----------------------|---------------------------------------|----------------------|------|------|
| Date   | Transect-          | size | eggs per             |                                       | larvae per           | size | size |
| (1976) | station            | (µ)  | 1,000 m <sup>3</sup> | Larvae                                | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 9-11   | IV-3               | 505  |                      | Gobiidae                              | 557                  | 1.9  | 8.8  |
|        |                    |      |                      | Gonostomatidae - Cyclothone sp.       | 83                   | 3.3  | 9.6  |
|        |                    |      |                      | Holocentridae                         | 3                    | 3.7  | 3.7  |
|        |                    |      |                      | Lutjanidae                            | 59                   | 2.3  | 4.4  |
|        |                    |      |                      | Microdesmidae - Microdesmus sp.       | 22                   | 4.1  | 13.6 |
|        | •                  |      | , .                  | Mugilidae                             | 9                    | 2.4  | 2.5  |
|        |                    |      |                      | Muraenidae                            | 28                   | 5.2  | 9.0  |
|        |                    |      |                      | Myctophidae                           | 6                    | 3.0  | 3.9  |
|        |                    |      |                      | Myctophidae - Ceratoscopelus warmingi | 3                    | 5.7  | 5.7  |
|        |                    |      |                      | Myctophidae - Diaphus sp.             | 3                    | 5.1  | 5.1  |
|        |                    |      |                      | Myctophidae - Lampadena sp.           | 3                    | 5.0  | 5.0  |
| -      |                    |      |                      | Nettastomidae                         | 3                    | 10.0 | 10.0 |
|        |                    |      |                      | Ophichthidae                          | 65                   | 4.7  | 20.0 |
|        |                    |      |                      | Ophidiidae                            | 19                   | 3.0  | 9.6  |
|        |                    |      |                      | Scombridae                            | 3                    | 2.9  | 2.9  |
|        |                    |      |                      | Scombridae - Auxis sp.                | 6                    | 3.4  | 6.6  |
|        |                    |      |                      | Scombridae - Euthynnus alletteratus   | 12                   | 3.3  | 5.0  |
|        |                    |      |                      | Scombridae - Scomberomorus cavalla    | 12                   | 2.8  | 4.9  |
|        |                    |      |                      | Scombridae - Thunnus sp.              | 12                   | 3.1  | 7.1  |
|        |                    |      |                      | Scorpaenidae - Scorpaena sp.          | 28                   | 2.4  | 3.1  |
|        |                    |      |                      | Serranidae                            | 65                   | 2.1  | 3.7  |
|        |                    |      |                      | Sphyraenidae - Sphyraena sp.          | 12                   | 2.7  | 4.3  |
|        |                    |      |                      | Sphyraenidae - Sphyraena guachancho   | 3                    | 4.4  | 4.4  |
|        |                    |      |                      | Synodontidae                          | 6                    | 3.0  | 5.7  |
|        |                    |      |                      | Synodontidae - Saurida sp.            | 52                   | 3.8  | 8.1  |
|        |                    |      |                      | Tetraodontidae                        | 15                   | 1.7  | 2.5  |
|        |                    |      |                      | Trichiuridae                          | 3                    | 5.0  | 5.0  |
|        |                    |      |                      | Unknown                               | 166                  | 2.0  | 10.0 |
| 9-11   | IV-3               | 333  | 384                  | Bothidae                              | 36                   | 1.3  | 4.8  |
| 9-11   | . <del>,</del> – , | 223  | 301                  | Bothidae - Bothus sp.                 | 72                   | 2,1  | 3.5  |

Appendix table 1. (Continued)

|        |           | Mesh | Number               |                                          | Number               | Min. | Max. |
|--------|-----------|------|----------------------|------------------------------------------|----------------------|------|------|
| Date   | Transect- | size | eggs per             | •                                        | larvae per           | size | size |
| (1976) | station   | (µ)  | 1,000 m <sup>3</sup> | Larvae                                   | 1,000 m <sup>3</sup> | (mm) | (mm) |
| 9-11   | IV-3      | 333  |                      | Bothidae - Bothus ocellatus              | 23                   | 3.2  | 5.8  |
| -      |           |      |                      | Bothidae - Syacium sp.                   | 85                   | 1.8  | 6.0  |
|        |           |      |                      | Bregmacerotidae - Bregmaceros atlanticus | 10                   | 7.4  | 10.0 |
|        |           |      |                      | Carangidae                               | 10                   | 1.9  | 2.7  |
|        |           |      |                      | Carangidae - Chloroscombrus chrysurus    | 23                   | 3.9  | 7.2  |
|        |           |      |                      | Carangidae - Decapterus punctatus        | 23                   | 2.2  | 4.6  |
|        |           |      |                      | Carangidae - Trachinotus sp.             | 3                    | 4.8  | 4.8  |
|        |           |      |                      | Clupeidae                                | 7                    | 5.4  | 6.0  |
|        |           |      | ,                    | Cynoglossidae - Symphurus sp.            | 588                  | 1.8  | 7.5  |
|        |           |      |                      | Engraulidae                              | 78                   | 2.7  | 7.2  |
|        |           |      |                      | Engraulidae - Engraulis eurystole        | 16                   | 7.3  | 8.6  |
|        |           |      |                      | Gobiidae                                 | 621                  | 1.6  | 7.8  |
|        |           |      |                      | Gonostomatidae                           | 3                    | 5.2  | 5.2  |
|        |           |      | • •                  | Gonostomatidae - Cyclothone sp.          | 49                   | 3.8  | 12.8 |
|        |           |      |                      | Istiophoridae                            | 3                    | 2.8  | 2.8  |
|        |           |      |                      | Labridae                                 | 3                    | 3.3  | 3.3  |
|        |           |      |                      | Lutjanidae                               | 46                   | 2.6  | 4.5  |
|        |           |      |                      | Microdesmidae - Microdesmus sp.          | 55                   | 2.0  | 4.9  |
|        |           |      |                      | Mugilidae - Mugil sp.                    | 3                    | 2.0  | 2.0  |
|        |           |      |                      | Myctophidae - Ceratoscopelus sp.         | 7                    | 3.5  | 3.7  |
|        |           |      |                      | Myctophidae - Diaphus sp.                | 16                   | 4.3  | 6.7  |
|        |           |      |                      | Myctophidae - Lampadena sp.              | 7                    | 5.7  | 7.2  |
|        |           |      |                      | Ophichthidae                             | 36                   | 5.3  | 13.8 |
|        |           |      |                      | Ophidiidae                               | 20                   | 2.5  | 10.7 |
|        |           |      |                      | Scombridae                               | 7                    | 2.2  | 2.8  |
|        |           |      |                      | Scombridae - Auxis sp.                   | 20                   | 4.0  | 5.5  |
|        |           |      |                      | Scombridae - Euthynnus alletteratus      | 13                   | 4.8  | 5.5  |
|        | •         |      |                      | Scombridae - Scomberomorus cavalla       | 20                   | 2.3  | 3.9  |
|        |           |      |                      | Scombridae - Thunnus sp.                 | 16                   | 3.0  | 5.6  |
|        |           |      |                      | Scorpaenidae - Scorpaena sp.             | 16                   | 3.3  | 4.0  |
|        |           |      |                      | Serranidae                               | 104                  | 2.5  | 5.9  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 9-11           | IV-3                 | 333                 |                                | Serranidae - Liopropoma sp.              | 3                                            | 5.3                  | 5.3                  |
|                |                      |                     |                                | Sphyraenidae - Sphyraena sp.             | 16                                           | 2.5                  | 5.4                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.               | 29                                           | 3.8                  | 9.4                  |
|                |                      |                     |                                | Unknown                                  | 143                                          | 1.6                  | 9.3                  |
| 11-10          | II-l                 | 505                 | 174                            | Bothidae                                 | 25                                           | 4.8                  | 4.9                  |
|                |                      |                     |                                | Bothidae - Paralichthys sp.              | 25                                           | 3.7                  | 4.5                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 12                                           | 4.3                  | 4.3                  |
|                |                      |                     |                                | Clupeidae                                | 124                                          | 3.2                  | 8.3                  |
|                |                      |                     |                                | Clupeidae - Brevoortia sp.               | 87                                           | 8.0                  | 10.0                 |
|                |                      |                     |                                | Clupeidae - Sardinella anchovia          | 87                                           | 8.1                  | 9.0                  |
|                |                      |                     |                                | Gobiidae                                 | 12                                           | 3.3                  | 3.3                  |
|                |                      |                     |                                | Ophidiidae - Rissola marginata           | 25                                           | 5.8                  | 14.4                 |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 546                                          | 2.4                  | 6.7                  |
|                |                      | -                   |                                | Unknown                                  | 137                                          | 2.2                  | 5.1                  |
| 11-10          | II-1                 | 333                 | 179                            | Bothidae                                 | 14                                           | 2.0                  | 2.0                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 14                                           | 2.2                  | 2.2                  |
|                |                      |                     |                                | Clupeidae                                | 455                                          | 3.3                  | 4.2                  |
|                |                      |                     |                                | Clupeidae - Brevoortia sp.               | 248                                          | 6.6                  | 9.8                  |
|                |                      |                     |                                | Clupeidae - Sardinella anchovia          | 69                                           | 7.9                  | 10.7                 |
|                |                      |                     |                                | Gobiidae                                 | 14                                           | 9.4                  | 9.4.                 |
|                | •                    |                     |                                | Ophidiidae - Rissola marginata           | 41                                           | 5.9                  | 6.7                  |
|                |                      |                     |                                | Sciaenidae - Larimus fasciatus           | 14                                           | 4.3                  | 4.3                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 537                                          | 2.9                  | 3.8                  |
|                |                      |                     |                                | Unknown                                  | 248                                          | 1.4                  | 4.0                  |
| 11-09          | II-2                 | 505                 | 329                            | Bothidae                                 | 78                                           | 3.4                  | 4.6                  |
| •              |                      |                     | -                              | Bothidae - Bothus ocellatus              | 94                                           | 4.2                  | 10.4                 |
|                |                      |                     |                                | Bothidae - Syacium sp.                   | .86                                          | 2.8                  | 7.4                  |
|                |                      |                     |                                | Bothidae - Syacium gunteri               | 8                                            | 8.9                  | 8.9                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 11-09          | II-2                 | 505                 | ь.                             | Bregmacerotidae - Bregmaceros atlanticus | 784                                          | 1.7                  | 14.4                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 290                                          | 3.0                  | 6.9                  |
|                |                      |                     | •                              | Gobiidae                                 | 3 <b>,</b> 694                               | 2.5                  | 10.0                 |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 71                                           | 2.0                  | 10.7                 |
|                |                      |                     |                                | Moringuidae - Neoconger mucronatus       | 8                                            | 6.0                  | 6.0                  |
|                |                      |                     |                                | Mugilidae - Mugil sp.                    | 16                                           | 3.5                  | 3.7                  |
|                |                      |                     |                                | Nettastomidae                            | 16                                           | 11.8                 | 13.3                 |
|                |                      |                     |                                | Ophichthidae                             | 24                                           | 16.5                 | 35.5                 |
|                |                      |                     |                                | Ophidiidae                               | 133                                          | 3.4                  | 18.4                 |
|                |                      |                     |                                | Pomatomidae - Pomatomus saltatrix        | 8                                            | 3.9                  | 3.9                  |
|                |                      |                     |                                | Scaridae                                 | 8                                            | 7.7                  | 7.7                  |
|                |                      |                     |                                | Sciaenidae                               | 816                                          | 2.0                  | 3.2                  |
|                |                      |                     |                                | Sciaenidae - <u>Leiostomus</u> xanthurus | 24                                           | 2.4                  | 3.2                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 102                                          | 2.7                  | 5.0                  |
|                |                      |                     |                                | Stromateidae - Peprilus burti            | 102                                          | 2.4                  | 3.9                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.               | 39                                           | 2.4                  | 4.8                  |
|                |                      |                     |                                | Synodontidae - Saurida brasiliensis      | 8                                            | 6.9                  | 6.9                  |
|                |                      |                     |                                | Trichiuridae - Trichiurus lepturus       | . 8                                          | 7.1                  | 7.1                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                | 47                                           | 2.8                  | 3.5                  |
|                |                      |                     |                                | Unknown                                  | 533                                          | 1.5                  | 4.2                  |
| 11-09          | II <b>-</b> 2        | 333                 | 282                            | Bothidae                                 | 212                                          | 1.6                  | 3.6                  |
| •              |                      |                     |                                | Bothidae - Bothus sp.                    | 31                                           | 3.7                  | 6.6                  |
|                |                      |                     |                                | Bothidae - Bothus ocellatus              | 118                                          | 3.5                  | 10.0                 |
|                |                      |                     |                                | Bothidae - Syacium sp.                   | 94                                           | 3.2                  | 6.4                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 1,129                                        | 1.1                  | 15.0                 |
|                |                      |                     |                                | Clupeidae                                | 8                                            | 7.0                  | 7.0                  |
|                |                      |                     |                                | Congridae                                | 24                                           | 8.7                  | 13.0                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 251                                          | 2.6                  | 8.3                  |
|                |                      |                     |                                | Gobiidae                                 | 4,416                                        | 2.6                  | 7.2                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 78                                           | 1.6                  | 3.8                  |

| Date         | Transect-     | Mesh<br>size | Number<br>eggs per |                                           | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------------|---------------|--------------|--------------------|-------------------------------------------|----------------------|--------------|--------------|
| (1976)       | station       | (μ)          | 1,000 m3           | Larvae                                    | 1,000 m3             | (mm)         | (mm)         |
| 11-09        | II-2          | 333          |                    | Maringuidae Naccangen musmonatus          | 16                   | 7.0          | 10.0         |
| 11-09        | 11-6          | 333          |                    | Moringuidae - Neoconger mucronatus        | 31                   | 2.1          | 3.2          |
|              |               |              |                    | Mugilidae - <u>Mugil</u> sp. Ophichthidae | 31                   | 22.0         | 40.0         |
|              |               |              | •                  | Ophidiidae                                | 118                  | 2.6          | 8.5          |
|              |               |              |                    | Pomadasvidae                              | 16                   | 2.3          | 3.8          |
|              |               |              |                    | Sciaenidae                                | 1,553                | 1.7          | 3.0          |
|              |               |              |                    | Sciaenidae - Leiostomus xanthurus         | 24                   | 1.8          | 2.4          |
|              |               |              |                    | Sciaenidae - Micropogon undulatus         | 31                   | 2.8          | 5.6          |
|              |               |              |                    | Serranidae                                | . 8                  | 2.1          | 2.1          |
|              |               |              |                    | Stromateidae - Peprilus burti             | 71                   | 2.3          | 3.9          |
|              |               |              |                    | Synodontidae                              | 24                   | 2.0          | 2.3          |
|              |               |              |                    | Synodontidae - Saurida sp.                | 24                   | 2.5          | 2.9          |
|              |               |              |                    | Synodontidae - Saurida brasiliensis       | 24                   | 9.8          | 25.0         |
|              |               |              |                    | Triglidae                                 | 55                   | 2.4          | 3.5          |
|              |               |              |                    | Triglidae - Prionotus sp.                 | 31                   | 2.4          | 5.2          |
|              |               |              |                    | Unknown                                   | 1,577                | 1.6          | 6.0          |
| 11-09        | II <b>-</b> 3 | 505          | 119                | Bothidae                                  | 87                   | 2.4          | 5.0          |
| <b>11</b> 0) | 3             | /-/          | /                  | Bothidae - Bothus sp.                     | 19                   | 3.1          | 8.4          |
|              |               |              |                    | Bothidae - Bothus ocellatus               | 16                   | 5.0          | 7.8          |
|              |               |              |                    | Bothidae - Syacium sp.                    | 16                   | 3.1          | 7.4          |
|              |               |              |                    | Bregmacerotidae - Bregmaceros sp.         | 3                    | 2.3          | 2.3          |
|              |               |              |                    | Bregmacerotidae - Bregmaceros atlanticus  | 301                  | 1.7          | 9.9          |
|              |               |              |                    | Chauliodontidae - Chauliodus sloani       | 3                    | 16.3         | 16.3         |
|              |               |              |                    | Congridae                                 | 103                  | 3.3          | 16.0         |
|              |               |              |                    | Cynoglossidae - Symphurus sp.             | 26                   | 2.2          | 4.3          |
| •            |               |              |                    | Gobiidae                                  | 2,434                | 2.3          | 8.8          |
|              |               |              |                    | Gonostomatidae - Cyclothone sp.           | 3                    | 9.5          | 9.5          |
|              |               |              |                    | Gonostomatidae - Maurolicus sp.           | 10 .                 | 2.9          | 3.6          |
|              |               |              |                    | Labridae                                  | 3                    | 7.0          | 7.0          |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae .                                 | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 11-09          | II-3                 | 505                 |                                            | Microdesmidae - Microdesmus sp.          | 3                                            | 12.8                 | 12.8                 |
|                |                      | <i>;</i>            |                                            | Moringuidae - Neoconger mucronatus       | 35                                           | 3.7                  | 10.0                 |
|                |                      |                     |                                            | Mugilidae - Mugil sp.                    | 6                                            | 3.3                  | 3.9                  |
|                |                      |                     |                                            | Myctophidae - Ceratoscopelus maderensis  | 3                                            | 5.8                  | 5.8                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                | 10                                           | 2.6                  | 12.0                 |
|                |                      |                     |                                            | Myctophidae - Diogenichthys atlanticus   | 10                                           | 3.8                  | 4.6                  |
|                |                      |                     |                                            | Myctophidae - Lampanyctus sp.            | 3                                            | 3.7                  | 3.7                  |
|                |                      |                     |                                            | Ophichthidae                             | 38                                           | 4.1                  | 19.0                 |
|                |                      |                     |                                            | Ophidiidae                               | 13                                           | 4.6                  | 9.0                  |
|                |                      |                     |                                            | Paralepididae - Lestidiops sp.           | 3                                            | 11.0                 | 11.0                 |
|                |                      |                     |                                            | Scaridae                                 | 3                                            | 7.1                  | 7.1                  |
|                |                      |                     |                                            | Sciaenidae                               | 3                                            | 2.3                  | 2.3                  |
|                |                      |                     |                                            | Sciaenidae - Cynoscion arenarius         | 6                                            | 4.1                  | 5.2                  |
|                |                      |                     |                                            | Sciaenidae - Larimus fasciatus           | 3                                            | 4.0                  | 4.0                  |
|                |                      |                     |                                            | Sciaenidae - Micropogon undulatus        | 6                                            | 2.3                  | 3.4                  |
|                |                      |                     |                                            | Scorpaenidae - Scorpaena sp.             | 10                                           | 3.1                  | 5.6                  |
|                |                      |                     |                                            | Serranidae - Diplectrum sp.              | 3                                            | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Synodontidae - Saurida sp.               | 26                                           | 2.5                  | 6.2                  |
|                |                      |                     |                                            | Trichiuridae - Trichiurus lepturus       | 6                                            | 9.0                  | 9.0                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                | 22                                           | 2.8                  | 3.5                  |
|                |                      |                     |                                            | Unknown                                  | 103                                          | 1.4                  | 8.4                  |
| 11-09          | II-3                 | 333                 | 109                                        | Bothidae                                 | 98                                           | 2.4                  | 6.2                  |
| •              | _                    |                     | -                                          | Bothidae - Bothus sp.                    | 7                                            | 2.1                  | 4.0                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus              | 4                                            | 7.5                  | 7.5                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 14                                           | 2.8                  | 5.7                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 4                                            | 6.0                  | 6.0                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 636                                          | 1.4                  | 10.0                 |
|                |                      |                     |                                            | Chauliodontidae - Chauliodus sp.         | 7                                            | 6.5                  | 6.8                  |
|                |                      |                     |                                            | Congridae                                | 112                                          | 4.1                  | 17.5                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 28                                           | 2.0                  | 4.5                  |

Appendix table 1. (Continued)

|        |               | Mesh       | Number               |                                        | Number                             | Min.<br>size | Max.<br>size |
|--------|---------------|------------|----------------------|----------------------------------------|------------------------------------|--------------|--------------|
| Date   | Transect-     | size       | eggs per             | T                                      | larvae per<br>1,000 m <sup>3</sup> | (mm)         | (mm)         |
| (1976) | station       | <u>(μ)</u> | 1,000 m <sup>3</sup> | Larvae                                 | т,000 шэ                           | / 11111/     | (11111)      |
| 11-09  | II <b>-</b> 3 | 333        |                      | Gobiidae                               | 2,490                              | 1.5          | 7.7          |
|        |               |            |                      | Gonostomatidae - Cyclothone sp.        | 4                                  | 9.1          | 9.1          |
|        |               |            | •                    | Gonostomatidae - Maurolicus sp.        | 18                                 | 2.6          | 3.6          |
|        |               |            |                      | Gonostomatidae - Vinciguerria sp.      | <u>,</u>                           | 5.0          | 5.0          |
|        |               |            |                      | Gonostomatidae - Vinciguerria nimbaria | 4                                  | 8.8          | 8.8          |
|        |               |            |                      | Microdesmidae - Microdesmus sp.        | 4                                  | 13.2         | 13.2         |
|        |               |            |                      | Moringuidae - Neoconger mucronatus     | 21                                 | 5.6          | 9.2          |
|        |               |            |                      | Mugilidae - Mugil sp.                  | 7                                  | 3.1          | 3.4          |
|        |               |            |                      | Myctophidae                            | · <b>7</b>                         | 2.9          | 4.5          |
|        |               |            |                      | Myctophidae - Benthosema suborbitale   | 4                                  | 4.2          | 4.2          |
|        |               |            |                      | Myctophidae - Ceratoscopelus sp.       | 21                                 | 2.4          | 4.5          |
|        |               |            |                      | Myctophidae - Diaphus sp.              | 14                                 | 4.2          | 5.9          |
|        |               |            |                      | Myctophidae - Lampanyctus sp.          | 14                                 | 5.7          | 5.7          |
|        |               |            |                      | Ophichthidae                           | 21                                 | 8.3          | 32.0         |
|        |               |            |                      | Ophidiidae                             | 11                                 | 4.4          | 10.1         |
|        |               |            |                      | Paralepididae                          | 4                                  | 2.3          | 2.3          |
|        |               |            |                      | Pomatomidae - Pomatomus saltatrix      | 14                                 | 5.0          | 5.0          |
|        |               |            |                      | Sciaenidae                             | 14                                 | 3.0          | 3.0          |
|        |               |            |                      | Sciaenidae - Cynoscion arenarius       | Ъ                                  | 4.0          | 4.0          |
|        |               |            |                      | Sciaenidae - Micropogon undulatus      | 14                                 | 3.7          | 5.1          |
|        |               |            |                      | Scorpaenidae - Scorpaena sp.           | 4                                  | 3.3          | 3.3          |
|        |               |            |                      | Serranidae                             | 11                                 | 2.2          | 3.0          |
|        |               |            |                      | Serranidae - Diplectrum sp.            | <u>)</u> †                         | 12.2         | 12.2         |
|        |               |            |                      | Sparidae                               | 4                                  | 6.2          | 6.2          |
|        |               |            |                      | Stromateidae - Peprilus burti          | 14                                 | 2.5          | 2.5          |
|        |               |            |                      | Synodontidae                           | 14                                 | 3.0          | 3.0          |
|        |               |            |                      | Synodontidae - Saurida sp.             | 21                                 | 3.2          | 5.7          |
|        |               |            |                      | Trichiuridae - Trichiurus lepturus     | 14                                 | 7.5          | 7.5          |
|        |               |            |                      | Triglidae - Prionotus sp.              | 21                                 | 2.2          | 3.7          |
|        |               |            |                      | Unknown                                | 207                                | 1.4          | 10.0         |

|        |           | Mesh | Number               |                                                     | Number     | Min.        | Max.        |
|--------|-----------|------|----------------------|-----------------------------------------------------|------------|-------------|-------------|
| Date   | Transect- | size | eggs per             |                                                     | larvae per | size        | size        |
| (1976) | station   | (µ)  | 1,000 m <sup>3</sup> | Larvae                                              | 1,000 m3   | (mm)        | (mm)        |
| 11 10  | TT 1.     | 505  | <b>C</b> 01.         | D.43.43.                                            | 122        | 0.0         | <b>7</b> 0  |
| 11-10  | II-4      | 505  | 684                  | Bothidae                                            | 133        | 2.0         | 7.0         |
|        |           |      |                      | Bothidae - Syacium sp.                              | 10         | 2.0         | 2.0         |
|        |           |      |                      | Bregmacerotidae - Bregmaceros atlanticus            | 327        | 1.8         | 5.6         |
|        |           |      |                      | Clupeidae                                           | 31         | 5.0         | 8.1         |
|        |           |      |                      | Engraulidae                                         | 10         | 3.6         | 3.6         |
|        |           |      |                      | Engraulidae - Engraulis eurystole                   | 10         | 14.3        | 14.3        |
|        |           |      |                      | Gobiidae                                            | 419        | 1.9         | 4.8         |
|        |           |      |                      | Moringuidae - Neoconger mucronatus                  | 41         | 5.2         | 8.3         |
|        |           |      |                      | Ophichthidae                                        | 20         | 21.0        | 22.8        |
|        |           |      |                      | Ophidiidae                                          | 10<br>10   | 12.4<br>4.1 | 12.4<br>4.1 |
|        |           |      |                      | Ophidiidae - <u>Rissola marginata</u><br>Sciaenidae | 429        | 1.9         | 2.9         |
|        |           |      |                      | Sciaenidae - Micropogon sp.                         | 1,134      | 2.5         | 4.1         |
|        |           |      |                      | Stromateidae - Peprilus burti                       | 31         | 2.8         | 2.9         |
|        |           |      |                      | Synodontidae - Saurida sp.                          | 20         | 2.5         | 3.0         |
|        |           |      |                      | Triglidae                                           | 20         | 2.7         | 3.1         |
|        |           |      |                      | Unknown                                             | 204        | 1.3         | 4.5         |
|        |           |      |                      |                                                     |            |             | ,           |
| 11-10  | II-4      | 333  | 996                  | Bothidae                                            | 295        | 1.6         | 4.9         |
|        |           |      |                      | Bothidae - Bothus ocellatus                         | 11         | 9.7         | 9.7         |
|        |           |      |                      | Bothidae - Paralichthys sp.                         | 33         | 2.3         | 4.5         |
|        |           |      |                      | Bothidae - Syacium gunteri                          | 11         | 9.7         | 9.7         |
|        |           |      |                      | Bregmacerotidae - Bregmaceros atlanticus            | 1,039      | 1.5         | 5.2         |
|        |           |      |                      | Clupeidae                                           | 11         | 6.0         | 6.0         |
|        |           |      |                      | Clupeidae - Sardinella anchovia                     | 11         | 7.9         | 7.9         |
|        |           |      |                      | Cynoglossidae - Symphurus sp.                       | 153        | 1.7         | 4.8         |
|        |           |      |                      | Gobiidae                                            | 996        | 2.0         | 5.2         |
|        | •         |      |                      | Microdesmidae - Microdesmus sp.                     | 11         | 2.7         | 2.7         |
|        |           |      |                      | Ophichthidae                                        | 11         | 54.5        | 54.5        |
|        |           |      |                      | Ophidiidae                                          | .77        | 2.9         | 4.0         |
|        |           |      |                      | Sciaenidae                                          | 2,090      | 1.5         | 3.5         |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 11-10          | II-4                 | 333                 |                                | Sciaenidae - Larimus fasciatus           | 11                               | 4.4                  | 4.4                  |
|                | ,                    | 000                 |                                | Sciaenidae - Leiostomus xanthurus        | 55                               | 2.4                  | 3.0                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 646                              | 2.4                  | 5.0                  |
|                |                      |                     | •                              | Stromateidae - Peprilus burti            | 11                               | 2.1                  | 2.1                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.               | 22                               | 2.1                  | 2.2                  |
|                |                      |                     |                                | Synodontidae - Synodus sp.               | 11                               | 1.9                  | 1.9                  |
|                |                      |                     |                                | Triglidae                                | 11                               | 2.2                  | 2.2                  |
|                |                      |                     |                                | Unknown                                  | 985                              | 1.3                  | 4.0                  |
| 11-09          | II-5                 | 505                 | 64                             | Bothidae                                 | 88                               | 2.7                  | 4.0                  |
| /              | /                    | , , ,               |                                | Bothidae - Bothus sp.                    | 8                                | 2.9                  | 3.7                  |
|                |                      |                     |                                | Bothidae - Bothus ocellatus              | 8                                | 4.6                  | 9.7                  |
|                |                      |                     |                                | Bothidae - Syacium sp.                   | 24                               | 3.6                  | 5.1                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 200                              | 2.2                  | 13.5                 |
|                |                      |                     |                                | Congridae                                | 28                               | 6.5                  | 11.7                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 48                               | 2.1                  | 5.2                  |
|                |                      |                     |                                | Gobiidae                                 | 938                              | 2.8                  | 7.6                  |
|                |                      |                     |                                | Microdesmidae - Microdesmus sp.          | 14                               | 2.0                  | 2.0                  |
|                |                      |                     |                                | Moringuidae - Neoconger mucronatus       | 48                               | 5.3                  | 23.0                 |
|                |                      |                     |                                | Mugilidae - Mugil sp.                    | 4                                | 4.3                  | 4.3                  |
|                |                      |                     |                                | Myctophidae - Myctophum obtusirostre     | 7                                | 5.5                  | 5.5                  |
|                |                      |                     |                                | Ophichthidae                             | 32                               | 9.0                  | 22.0                 |
|                |                      |                     |                                | Ophidiidae                               | 52                               | 2.1                  | 5.3                  |
|                |                      |                     |                                | Sciaenidae                               | 8                                | 2.0                  | 2.2                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 12                               | 2.5                  | 3.3                  |
|                |                      |                     |                                | Stromateidae - Peprilus burti            | 16                               | 2.1                  | 6.0                  |
|                |                      |                     |                                | Synodontidae - Saurida sp.               | 40                               | 5.3                  | 18.6                 |
|                |                      |                     |                                | Trichiuridae - Trichiurus lepturus       | Ħ                                | 5.8                  | 5.8                  |
|                |                      |                     |                                | Triglidae                                | 20                               | 2.8                  | 3.3                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                | 8                                | 3.5                  | 4.3                  |
|                |                      |                     |                                | Unknown                                  | 120                              | 1.5                  | 5.8                  |

4

Appendix table 1. (Continued)

| Date   | Transect-     | Mesh<br>size | Number                           |                                          | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|---------------|--------------|----------------------------------|------------------------------------------|----------------------|--------------|--------------|
| (1976) | station       | size<br>(μ)  | eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | 1,000 m3             | (mm)         | (mm)         |
| (19/0) | scation       | (μ)          | 1,000 m3                         | пагуае                                   | 1,000 mg             | /4411/       | (11111)      |
| 11-09  | II <b>-</b> 5 | 333          | 55                               | Bothidae                                 | 99                   | 2.2          | 4.3          |
|        |               |              | •                                | Bothidae - Bothus sp.                    | 7                    | 2.9          | 3.2          |
|        |               |              | •                                | Bothidae - Bothus ocellatus              | 7                    | 5.6          | 9.2          |
|        |               |              |                                  | Bothidae - Cyclopsetta sp.               | 14                   | 7.5          | 7.5          |
|        |               |              |                                  | Bothidae - Syacium sp.                   | 22                   | 3.5          | 6.8          |
|        |               |              |                                  | Bothidae - Syacium gunteri               | 4                    | 8.5          | 8.5          |
|        |               |              |                                  | Bregmacerotidae - Bregmaceros atlanticus | 334                  | 1.6          | 12.0         |
|        |               |              |                                  | Congridae                                | 40                   | 6.3          | 15.2         |
|        |               |              |                                  | Cynoglossidae - Symphurus sp.            | 15                   | 3.7          | 6.0          |
|        |               |              |                                  | Elopidae - Elops saurus                  | 4                    | 26.7         | 26.7         |
|        |               |              |                                  | Engraulidae - Engraulis eurystole        | 4                    | 10.9         | 10.9         |
|        |               |              |                                  | Gobiidae                                 | 1,327                | 2.1          | 5.1          |
|        |               |              |                                  | Gonostomatidae - Cyclothone sp.          | 4                    | 6.7          | 6.7          |
|        |               |              |                                  | Microdesmidae - Microdesmus sp.          | 4                    | 2.0          | 2.0          |
|        |               |              |                                  | Moringuidae - Neoconger mucronatus       | 29                   | 5.2          | 8.9          |
|        |               |              |                                  | Ophichthidae                             | 22                   | 5.1          | 23.0         |
|        |               |              | •                                | Ophidiidae                               | 37                   | 2.1          | 5.2          |
|        |               |              |                                  | Sciaenidae                               | 103                  | 1.6          | 2.7          |
|        |               |              |                                  | Sciaenidae - Larimus fasciatus           | 4                    | 5.7          | 5.7          |
|        |               |              |                                  | Stromateidae - Peprilus burti            | 15                   | 2.3          | 4.1          |
|        |               |              |                                  | Synodontidae - Saurida sp.               | 44                   | 2.3          | 20.8         |
|        |               |              |                                  | Triglidae                                | 48                   | 2.0          | 3.7          |
|        |               |              |                                  | Unknown                                  | 502                  | 1.5          | 8.0          |
| 11-09  | II <b>-</b> 6 | 505          | 120                              | Bothidae                                 | 32                   | 2.7          | 4.5          |
| 11 0)  |               | /-/          |                                  | Bothidae - Bothus sp.                    | 14                   | 4.2          | 7.5          |
|        |               |              |                                  | Bothidae - Bothus ocellatus              | 4                    | 4.3          | 4.3          |
|        |               |              |                                  | Bothidae - Syacium sp.                   | 7                    | 3.7          | 4.0          |
|        |               |              |                                  | Bregmacerotidae - Bregmaceros atlanticus | 219                  | 2.0          | 9.6          |
|        |               |              |                                  | Congridae                                | 32                   | 5.3          | 11.7         |
|        |               |              |                                  | Cynoglossidae - Symphurus sp.            | 39                   | 2.7          | 6.5          |
|        |               |              |                                  | oliogropping - plubining ph.             | J                    | E • 1        | 0.)          |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                              | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|-----------------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 11-09          | II <b>-</b> 6        | 505                 |                                            | Gobiidae                                            | 1,527                                        | 2.7                  | 6.0                  |
|                |                      |                     |                                            | Gonostomatidae                                      | 4<br>1.                                      | 10.5                 | 10.5                 |
|                |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                     | 4<br>7 ).                                    | 7.1                  | 7.1                  |
|                |                      |                     |                                            | Gonostomatidae - <u>Maurolicus</u> sp.              | 14<br>և                                      | 4.1<br>4.4           | 5.1<br>4.4           |
|                |                      |                     |                                            | Lutjanidae                                          | •                                            | 2.0                  | 4.2                  |
|                |                      |                     |                                            | Microdesmidae - Microdesmus sp.                     | 14<br>4                                      | 12.1                 | 12.1                 |
|                |                      |                     |                                            | Moringuidae - Neoconger mucronatus                  | 74                                           | 3.1                  | 4.0                  |
|                |                      |                     |                                            | Mugilidae - Mugil sp.                               | · 4                                          | 4.0                  | 4.0                  |
|                |                      |                     | •                                          | Mullidae                                            | 4                                            | 3.6                  | 3.6                  |
|                |                      |                     |                                            | Myctophidae                                         | 4 7                                          | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Myctophidae - Diaphus sp.                           | 7                                            | 8.4                  | 17.9                 |
|                |                      |                     |                                            | Ophichthidae                                        | 14                                           | 3.8                  | 8.6                  |
|                |                      |                     |                                            | Ophidiidae                                          | 14<br>14                                     | 7.6                  | 7.6                  |
|                |                      |                     |                                            | Scaridae                                            | 4                                            | 4.0                  | 4.0                  |
|                |                      |                     |                                            | Sciaenidae                                          | 21                                           | 3.1                  | 3.4                  |
|                |                      |                     |                                            | Serranidae                                          | 32                                           | 3.2                  | 7.6                  |
|                |                      |                     | •                                          | Synodontidae - Saurida sp.                          | 7                                            | 3.4                  | 3.4                  |
|                |                      |                     |                                            | Tetraodontidae                                      | 4                                            | 3.0                  | 3.0                  |
|                |                      |                     |                                            | Triglidae<br>Unknown                                | 53                                           | 1.8                  | 5.5                  |
| 11-09          | II <b>-</b> 6        | 333                 | 109                                        | Bothidae                                            | 53                                           | 2.1                  | 4.1                  |
| 11-07          |                      | 333                 |                                            | Bothidae - Bothus sp.                               | 11                                           | 2.8                  | 3.6                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus                         | 11                                           | 4.2                  | 8.5                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                              | 26                                           | 3.0                  | 5.8                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus            | 343                                          | 1.2                  | 9.2                  |
|                |                      |                     |                                            | Congridae                                           | 49                                           | 5.3                  | 21.9                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.                       | 49                                           | 2.0                  | 4.0                  |
|                |                      |                     |                                            | Engraulidae                                         | 4                                            | 5.7                  | 5.7                  |
|                |                      |                     |                                            | Engraulidae - <u>Engraulis eurystole</u><br>Gadidae | . <u>1</u> 4<br>14                           | 16.3<br>1.6          | 16.3<br>1.6          |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(μ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 11-09       | 11-6                 | 333                 |                                | Gobiidae                                 | 1,701                                        | 1.8                  | 7.7                  |
|             |                      |                     |                                | Gonostomatidae - Cyclothone sp.          | 8                                            | 4.5                  | 5.0                  |
|             |                      |                     |                                | Gonostomatidae - Maurolicus sp.          | 8                                            | 5.1                  | 7.2                  |
|             |                      |                     | •                              | Microdesmidae - Microdesmus sp.          | 19                                           | 3.8                  | 8.5                  |
|             |                      |                     |                                | Mugilidae - Mugil sp.                    | 72                                           | 3.2                  | 3.9                  |
|             |                      |                     |                                | Myctophidae                              | 15                                           | 2.8                  | 6.3                  |
|             |                      |                     |                                | Myctophidae - Ceratoscopelus sp.         | 4                                            | 3.1                  | 3.1                  |
|             |                      |                     |                                | Myctophidae - Diaphus sp.                | 23                                           | 2.2                  | 5.2                  |
|             |                      |                     |                                | Myctophidae - Hygophum sp.               | - 4                                          | 3.9                  | 3.9                  |
|             |                      |                     |                                | Ophichthidae                             | 8                                            | 4.8                  | 11.8                 |
|             |                      |                     |                                | Ophidiidae                               | 11                                           | 2.1                  | 5.4                  |
|             |                      |                     |                                | Paralepididae                            | 4 .                                          | 4.9                  | 4.9                  |
|             |                      |                     |                                | Pomatomidae - Pomatomus saltatrix        | 4                                            | 4.8                  | 4.8                  |
|             |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 8                                            | 3.7                  | 6.1                  |
|             |                      |                     |                                | Serranidae                               | 60                                           | 2.1                  | 5.5                  |
|             |                      |                     |                                | Stromateidae - Peprilus sp.              | 19                                           | 1.8                  | 1.8                  |
|             |                      |                     |                                | Synodontidae - Saurida sp.               | 15                                           | 4.4                  | 9.8                  |
|             |                      |                     |                                | Trichiuridae - Trichiurus lepturus       | 4                                            | 13.4                 | 13.4                 |
|             |                      |                     |                                | Triglidae - Prionotus sp.                | 19                                           | 1.8                  | 2.8                  |
|             |                      |                     |                                | Unknown                                  | 174                                          | 1.6                  | 7.2                  |
| 11-09       | II <b>-</b> 7        | 505                 | 94                             | Bathylagidae - Bathylagus sp.            | 2                                            | 5.4                  | 5.4                  |
| ,           | •                    | , -,                |                                | Bothidae                                 | 78                                           | 2.0                  | 6.6                  |
|             |                      |                     |                                | Bothidae - Bothus ocellatus              | 14                                           | 4.3                  | 11.4                 |
|             |                      |                     |                                | Bothidae - Syacium sp.                   | 14                                           | 2.3                  | 4.5                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.        | 8                                            | 2.5                  | 13.1                 |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 214                                          | 2.1                  | 9.1                  |
|             |                      |                     |                                | Carangidae - Decapterus punctatus        | 2                                            | 3.3                  | 3.3                  |
|             |                      |                     |                                | Congridae                                | 67                                           | 3.8                  | 21.0                 |
|             |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 20                                           | 2.0                  | 8.0                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                  | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|-----------------------------------------|----------------------------------------------|----------------------|----------------------|
| 127107      | 00001011             | \F/                 |                                |                                         |                                              |                      | _ , _                |
| 11-09       | II <b>-</b> 7        | 505                 |                                | Engraulidae - Engraulis eurystole       | 2                                            | 14.3                 | 14.3                 |
|             |                      |                     |                                | Gadidae - <u>Urophycis</u> sp.          | 2                                            | 2.5                  | 2.5                  |
|             |                      |                     |                                | Gobiidae                                | 883                                          | 2.3                  | 10.9                 |
|             |                      |                     |                                | Gonostomatidae                          | 2                                            | 5.7                  | 5.7                  |
|             |                      |                     |                                | Gonostomatidae - Maurolicus sp.         | 47                                           | 2.7                  | 7.0                  |
|             |                      |                     |                                | Labridae                                | 2                                            | 8.4                  | 8.4                  |
|             |                      |                     |                                | Microdesmidae - Microdesmus sp.         | 4                                            | 5.7                  | 11.5                 |
|             |                      |                     |                                | Moringuidae - Neoconger mucronatus      | 39                                           | 4.7                  | 17.8                 |
|             |                      |                     | •                              | Mugilidae - <u>Mugil</u> sp.            | 16                                           | 3.3                  | 3.5                  |
|             |                      |                     |                                | Myctophidae                             | 12                                           | 3.0                  | 11.0                 |
|             |                      |                     |                                | Myctophidae - Ceratoscopelus sp.        | 2                                            | 2.8                  | 2.8                  |
|             |                      |                     |                                | Myctophidae - Ceratoscopelus maderensis | 2                                            | 5.0                  | 5.0                  |
|             |                      |                     |                                | Myctophidae - Diaphus sp.               | 2                                            | 5.8                  | 5.8                  |
|             |                      |                     |                                | Ophichthidae                            | 29                                           | 5.9                  | 27.9                 |
|             |                      |                     |                                | Ophidiidae                              | 25                                           | 3.4                  | 22.5                 |
|             |                      |                     |                                | Pomatomidae - Pomatomus saltatrix       | 4                                            | 2.8                  | 5.1                  |
|             | •                    |                     |                                | Scaridae                                | 2<br>6                                       | 8.1                  | 8.1                  |
|             |                      |                     |                                | Sciaenidae - Cynoscion arenarius        | 6                                            | 3.8                  | 4.3                  |
|             |                      |                     |                                | Sciaenidae - Larimus fasciatus          | 2<br>8                                       | 3.9                  | 3.9                  |
|             |                      |                     |                                | Sciaenidae - Micropogon undulatus       |                                              | 3.6                  | 4.8                  |
|             |                      |                     |                                | Serranidae - Diplectrum sp.             | 2                                            | 16.7                 | 16.7                 |
|             |                      |                     |                                | Stromateidae - Peprilus burti           | 2                                            | 3.0                  | 3.0                  |
|             |                      |                     |                                | Synodontidae                            | 2                                            | 4.6                  | 4.6                  |
|             |                      |                     |                                | Synodontidae - Saurida sp.              | 2<br>2                                       | 3.6                  | <b>3.</b> 6          |
|             |                      |                     |                                | Trichiuridae                            | 2                                            | 15.5                 | 15.5                 |
|             |                      |                     |                                | Trichiuridae - Trichiurus lepturus      | 2                                            | 6.2                  | 6.2                  |
|             |                      |                     |                                | Triglidae                               | 4                                            | 2.6                  | 2.7                  |
|             |                      |                     |                                | Triglidae - Prionotus sp.               | 2                                            | 5.4                  | 5.4                  |
|             |                      |                     | • •                            | Unknown                                 | 94                                           | 2.0                  | 5.8                  |

|        |               | Mesh | Number   |                                          | Number               | Min. | Max.        |
|--------|---------------|------|----------|------------------------------------------|----------------------|------|-------------|
| Date   | Transect-     | size | eggs per |                                          | larvae per           | size | size        |
| (1976) | station       | (µ)  | 1,000 m3 | Larvae                                   | 1,000 m <sup>3</sup> | (mm) | (mm)        |
|        |               |      |          |                                          |                      |      |             |
| 11-09  | II <b>-</b> 7 | 333  | 114      | Bothidae                                 | 66                   | 1.4  | 9.5         |
|        |               |      |          | Bothidae - Bothus sp.                    | 9                    | 2.9  | 9.4         |
|        |               |      |          | Bothidae - Bothus ocellatus              | 7                    | 4.4  | 5.1         |
|        |               |      |          | Bothidae - Syacium sp.                   | 11                   | 3.6  | 4.9         |
|        |               |      |          | Bregmacerotidae - Bregmaceros sp.        | 2                    | 3.6  | <b>3.</b> 6 |
|        |               |      |          | Bregmacerotidae - Bregmaceros atlanticus | 398                  | 1.5  | 7.3         |
|        |               |      |          | Chauliodontidae - Chauliodus sp.         | 74                   | 5.5  | 5.6         |
|        |               |      |          | Congridae                                | 51                   | 4.7  | 14.0        |
|        |               |      |          | Cynoglossidae - Symphurus sp.            | 24                   | 2.3  | 3.8         |
|        |               |      |          | Gobiidae                                 | 1,088                | 2.2  | 9.0         |
|        |               |      |          | Gonostomatidae                           | 7                    | 2.7  | 4.2         |
|        |               |      |          | Gonostomatidae - Maurolicus sp.          | 84                   | 2.4  | 7.1         |
|        |               |      |          | Gonostomatidae - Polymetme corythaeola   | 4                    | 4.3  | 4.3         |
|        |               |      |          | Gonostomatidae - Vinciguerria nimbaria   | 4                    | 7.3  | 9.4         |
|        |               |      |          | Kyphosidae - Kyphosus sp.                | 2                    | 4.5  | 4.5         |
|        |               |      |          | Labridae                                 | 2                    | 7.3  | 7.3         |
|        |               |      |          | Microdesmidae - Microdesmus sp.          | 2                    | 7.8  | 7.8         |
|        |               |      |          | Moringuidae - Neoconger mucronatus       | 20                   | 5.3  | 9.3         |
|        |               |      |          | Mugilidae                                | 22                   | 3.1  | 5.6         |
|        |               |      |          | Myctophidae                              | 15                   | 3.0  | 13.0        |
|        |               |      |          | Myctophidae - Benthosema suborbitale     | 2                    | 6.4  | 6.4         |
|        |               |      |          | Myctophidae - Ceratoscopelus sp.         | 18                   | 2.5  | 4.5         |
|        |               |      |          | Myctophidae - Ceratoscopelus maderensis  | 4                    | 3.3  | 5.0         |
|        |               |      |          | Myctophidae - Diaphus sp.                | 9                    | 2.8  | 3.4         |
|        |               |      |          | Myctophidae - Hygophum sp.               | 2                    | 5.2  | 5.2         |
|        |               |      |          | Nettastomidae                            | <u> </u>             | 8.7  | 16.0        |
|        |               |      |          | Ophichthidae                             | ıi                   | 8.0  | 39.0        |
|        |               |      |          | Ophididae                                | 11                   | 5.5  | 9.5         |
|        |               |      |          | Paralepididae                            | . 2                  | 7.3  | 7.3         |
|        |               |      |          | Sciaenidae                               | 2                    | 2.3  | 2.3         |
|        |               |      |          | Sciaenidae - Micropogon undulatus        | 7                    | 2.5  | 3.9         |

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Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                    | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------|----------------------|
| 11-09          | II <b>-</b> 7        | 333                 |                                | Scopelarchidae                            | 4 .                              | 3.2                  | 4.3                  |
|                | •                    |                     |                                | Serranidae                                | 4                                | 2.3                  | 2.6                  |
|                |                      |                     |                                | Sparidae                                  | 4                                | 4.0                  | 4.3                  |
|                |                      |                     |                                | Stromateidae - Peprilus burti             | 4                                | 2.6                  | 2.8                  |
|                |                      |                     |                                | Synodontidac - Saurida sp.                | 15                               | 2.3                  | 14.0                 |
|                |                      |                     |                                | Trichiuridae - Diplospinous multistriatus | 2                                | 4.4                  | 4.4                  |
|                |                      |                     |                                | Trichiuridae - Trichiurus lepturus        | 2                                | 7.3                  | 7.3                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                 | 13                               | 2.8                  | 4.4                  |
|                |                      |                     |                                | Unknown                                   | 356                              | 1.5                  | 12.0                 |
| 12-01          | II-1                 | 505                 | 1,488                          | Bothidae - Paralichthys sp.               | 52                               | 2.3                  | 3.7                  |
| 12-01          | II-1                 | 333                 | 149                            | Bothidae                                  | 55                               | 2.1                  | 3.7                  |
|                |                      |                     |                                | Bothidae - Paralichthys sp.               | 41                               | 3.1                  | 4.4                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus  | 14                               | 1.7                  | 1.7                  |
|                |                      |                     |                                | Clupeidae                                 | 534                              | 2.7                  | 8.7                  |
|                |                      |                     | *                              | Clupeidae - Brevoortia sp.                | 109                              | 7.3                  | 10.0                 |
|                |                      | •                   |                                | Clupeidae - Sardinella anchovia           | 27                               | 7.7                  | 8.0                  |
|                |                      |                     |                                | Engraulidae - Anchoa sp.                  | 14                               | 15.0                 | 15.0                 |
|                |                      |                     |                                | Gobiidae                                  | 27                               | 2.0                  | 2.9                  |
|                |                      |                     |                                | Gonostomatidae                            | 14                               | 3.5                  | 3.5                  |
|                |                      |                     |                                | Sciaenidae                                | 82                               | 2.0                  | 3.6                  |
|                |                      |                     |                                | Stromateidae - Peprilus burti             | 82                               | 2.0                  | 3.1                  |
|                |                      |                     |                                | Unknown                                   | 1 <u>9</u> 2                     | 1.3                  | 5.0                  |
| 12-02          | II <b>-</b> 2        | 505                 | 1,279                          | Bothidae                                  | 15                               | 3.7                  | 4.2                  |
|                |                      |                     | •                              | Bothidae - Paralichthys sp.               | 110                              | 2.9                  | 4.5                  |
| 12-02          | II-2                 | 333                 | 1,124                          | Bothidae                                  | 54                               | 2.6                  | 3.8                  |
|                |                      |                     | •                              | Bothidae - Paralichthys sp.               | 62                               | 2.7                  | 5.1                  |
|                |                      |                     |                                | Branchiostegidae - Caulolatilus sp.       | 8                                | 2.7                  | 2.7                  |

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 12-02       | II-2                 | 333                 |                                | Bregmacerotidae - Bregmaceros atlanticus | 318                              | 2.0                  | 10.9                 |
| 11 01       |                      | <i>333</i> .        |                                | Clupeidae                                | 109                              | 4.3                  | 10.5                 |
|             |                      |                     | ,                              | Clupeidae - Brevoortia sp.               | 23                               | 7.0                  | 10.0                 |
|             |                      |                     |                                | Clupeidae - Etrumeus teres               | 8                                | 11.0                 | 11.0                 |
|             |                      |                     |                                | Congridae - Hildebrandia sp.             | 23                               | 6.3                  | 9.8                  |
|             |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 8                                | 6.2                  | 6.2                  |
|             |                      |                     |                                | Gadidae                                  | 8                                | 2.7                  | 2.7                  |
|             |                      |                     | •                              | Gobiidae                                 | 62                               | 2.0                  | 6.i                  |
|             |                      |                     |                                | Gonostomatidae - Maurolicus sp.          | 8                                | 4.0                  | 4.0                  |
|             |                      |                     |                                | Mugilidae - Mugil sp.                    | 116                              | 2.8                  | 6.2                  |
|             |                      |                     |                                | Myctophidae                              | 8                                | 3.4                  | 3.4                  |
|             |                      |                     |                                | Sciaenidae                               | <b>7</b> 52                      | 2.2                  | 6.0                  |
|             |                      |                     |                                | Sciaenidae - Leiostomus xanthurus        | 519                              | 2.9                  | 7.1                  |
|             |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 558                              | 2.7                  | 4.8                  |
|             |                      |                     |                                | Serranidae                               | 186                              | 2.2                  | 3.4                  |
|             |                      |                     |                                | Sparidae                                 | 31                               | 4.1                  | 5.5                  |
|             |                      |                     |                                | Stromateidae - Peprilus burti            | 535                              | 1.9                  | 4.3                  |
|             |                      |                     |                                | Synodontidae                             | 8                                | 3.4                  | 3.4                  |
|             |                      |                     |                                | Synodontidae - Saurida sp.               | 8                                | 2.8                  | 2.8                  |
|             |                      |                     |                                | Triglidae - Prionotus sp.                | 8                                | 2.7                  | 2.7                  |
|             |                      |                     |                                | Unknown                                  | 310                              | 1.5                  | 5.0                  |
| 12-02       | II-3                 | 505                 | 403                            | Bothidae                                 | 37                               | 3.5                  | 5.3                  |
| ,           |                      |                     |                                | Bothidae - Bothus sp.                    | 3                                | 3.4                  | 3.4                  |
|             |                      |                     |                                | Branchiostegidae - Caulolatilus sp.      | 3                                | 3.8                  | 3.8                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.        | 29                               | 2.6                  | 9.8                  |
|             |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 155                              | 2.1                  | 9.5                  |
|             |                      |                     |                                | Chauliodontidae - Chauliodus sp.         | 40                               | 4.0                  | 13.0                 |
|             |                      |                     |                                | Clupeidae                                | 3                                | 6.8                  | 6.8                  |
|             |                      |                     |                                | Congridae - Hildebrandia sp.             | 35                               | 5.2                  | 20.0                 |
|             |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 23                               | 3.8                  | 5.8                  |

Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                            | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|---------------------------------------------------|----------------------------------------------|----------------------|----------------------|
|             |                      |                     |                                            |                                                   |                                              | 2 2                  |                      |
| 12-02       | II-3                 | 505                 |                                            | Gobiidae                                          | 834                                          | 3.3                  | 8.0                  |
|             |                      |                     |                                            | Gonostomatidae                                    | 3                                            | 7.8                  | 7.8                  |
|             |                      |                     |                                            | Gonostomatidae - Cyclothone sp.                   | 3                                            | 6.6                  | 6.6                  |
|             |                      |                     |                                            | Gonostomatidae - <u>Maurolicus</u> sp.            | 32                                           | 3.5                  | 8.0                  |
|             |                      |                     |                                            | Gonostomatidae - Polymetme corythaeola            | 3                                            | 6.3                  | 6.3                  |
|             |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.                 | 3                                            | 3.2                  | 3.2                  |
|             |                      |                     |                                            | Gonostomatidae - Vinciguerria nimbaria            | 6                                            | 5.1                  | 8.7                  |
|             |                      |                     |                                            | Moringuidae - Neoconger mucronatus                | 12                                           | 13.0                 | 25.0                 |
|             |                      |                     |                                            | Mugilidae - Mugil sp.                             | 187                                          | 2.2                  | 5.3                  |
|             |                      |                     |                                            | Myctophidae                                       | 6                                            | 3.2                  | 7.4                  |
|             |                      |                     |                                            | Myctophidae - Ceratoscopelus sp.                  | 12                                           | 2.3                  | 5.Ó                  |
|             |                      |                     |                                            | Myctophidae - Diaphus sp.                         | 12                                           | 2.9                  | 4.2                  |
|             |                      |                     |                                            | Myctophidae - Hygophum sp.                        | 6                                            | 3.6                  | 4.8                  |
|             |                      |                     |                                            | Myctophidae - Myctophum sp.                       | 3                                            | 4.6                  | 4.6                  |
|             |                      |                     |                                            | Myctophidae - Myctophum obtusirostre              | . 3                                          | 3.8                  | 3.8                  |
|             |                      |                     |                                            | Nettastomidae                                     | 6                                            | 10.0                 | 20.0                 |
|             |                      |                     |                                            | Ophichthidae                                      | 9                                            | 5.7                  | 9.3                  |
|             |                      |                     |                                            | Ophidiidae                                        | 6                                            | 3.6                  | 8.2                  |
|             |                      |                     |                                            | Paralepididae                                     | 20                                           | 3.2                  | 15.0                 |
|             |                      |                     |                                            | Sciaenidae                                        | 26                                           | 2.3                  | 4.0                  |
|             |                      |                     |                                            | Sciaenidae - Cynoscion arenarius                  | 6                                            | 3.0                  | 5.6                  |
|             |                      |                     |                                            | Sciaenidae - Leiostomus xanthurus                 | 6                                            | 3.0                  | 4.5                  |
|             |                      |                     |                                            | Sciaenidae - Micropogon undulatus                 | . 3                                          | 4.5                  | 4.5                  |
|             |                      |                     |                                            | Serranidae                                        | 3                                            | 3.0                  | 3.0                  |
|             |                      |                     |                                            | Synodontidae - <u>Saurida</u> <u>brasiliensis</u> | 3                                            | 6.6                  | 6.6                  |
|             |                      |                     |                                            | Trichiuridae - Trichiurus lepturus                | . 3                                          | 6.7                  | 6.7                  |
|             |                      |                     |                                            |                                                   | 6                                            | 3.7                  | 5.6                  |
|             |                      |                     |                                            | Triglidae - <u>Prionotus</u> sp.<br>Unknown       | 89                                           | 2.2                  | 10.0                 |
| 12-02       | II-3                 | 333                 | . 337                                      | Bothidae                                          | 52                                           | 2.4                  | 5.1                  |
|             | J                    | 2,3                 | . 551                                      | Branchiostegidae - Caulolatilus sp.               | 18                                           | 2.3                  | 3.7                  |

| Date   | Transect- | Mesh<br>size | Number<br>eggs per   |                                               | Number<br>larvae per | Min.<br>size | Max.<br>size |
|--------|-----------|--------------|----------------------|-----------------------------------------------|----------------------|--------------|--------------|
| (1976) | station   | (µ)          | 1,000 m <sup>3</sup> | Larvae                                        | 1,000 m3             | (mm)         | (mm)         |
| 12-02  | II-3      | 333          |                      | Bregmacerotidae - Bregmaceros sp.             | 21                   | 2.8          | 6.5          |
| 12-02  | 11-5      | 223          |                      | Bregmacerotidae - Bregmaceros atlanticus      | 194                  | 1.3          | 10.4         |
|        |           |              |                      | Chauliodontidae - Chauliodus sp.              | 55                   | 5.5          | 13.5         |
|        |           |              |                      | Clupeidae                                     | 3                    | 6.0          | 6.0          |
|        |           |              |                      | Congridae - Hildebrandia sp.                  | 27                   | 4.5          | 18.5         |
|        |           |              |                      | Cynoglossidae - Symphurus sp.                 | 21                   | 2.1          | 4.8          |
|        |           |              |                      | Gadidae - Urophycis sp.                       | 21                   | 1.5          | 2.9          |
|        |           |              |                      | Gobiidae                                      | 690                  | 2.2          | 7.0          |
|        |           |              |                      | Gonostomatidae                                | 9                    | 2.7          | 4.2          |
|        |           |              |                      | Gonostomatidae - Cyclothone sp.               | 3                    | 11.0         | 11.0         |
|        |           |              |                      | Gonostomatidae - Maurolicus sp.               | 30                   | 2.5          | 6.8          |
|        |           |              |                      | Gonostomatidae - Vinciguerria poweriae        | 3                    | 7.8          | 7.8          |
|        |           |              |                      | Moringuidae - Neoconger mucronatus            | 6                    | 15.5         | 18.0         |
|        |           |              |                      | Mugilidae - Mugil sp.                         | 295                  | 1.8          | 5.7          |
|        |           |              |                      | Myctophidae                                   | 46                   | 1.9          | 3.6          |
|        |           |              |                      | Myctophidae - Diaphus sp.                     | 18                   | 3.0          | 4.3          |
|        |           |              |                      | Myctophidae - Myctophum sp.                   | 3                    | 3.3          | 3.3          |
|        | •         |              |                      | Nettastomidae                                 | 6                    | 11.0         | 21.0         |
|        |           |              |                      | Ophichthidae                                  | 12                   | 4.2          | 8.0          |
|        |           |              |                      | Paralepididae                                 | 18                   | 2.5          | 8.1          |
|        |           |              |                      | Priacanthidae                                 | 3                    | 4.6          | 4.6          |
|        |           |              |                      | Sciaenidae                                    | 24                   | 2.2          | 4.5          |
|        |           |              |                      | Sciaenidae - Leiostomus xanthurus             | 18                   | 2.8          | 5.2          |
|        |           |              |                      | Sciaenidae - Micropogon undulatus             | 9                    | 3.0          | 5.0          |
|        |           |              |                      | Serranidae                                    | 6                    | 2.6          | 2.8          |
|        |           |              |                      | Serranidae - <u>Diplectrum</u> sp.            | -3                   | 4.2          | 4.2          |
|        |           |              |                      | Serranidae - <u>Hemanthias</u> <u>vivanus</u> | 3                    | 7.1          | 7.1          |
|        |           |              | •                    | Sparidae                                      | . 6                  | 3.8          | 4.2          |
|        |           |              |                      | Stromateidae - Peprilus burti                 | 30                   | 1.8          | 2.8          |
|        |           |              |                      | Synodontidae                                  | 3                    | 2.8          | 2.8          |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 12-02          | II-3                 | 333                 |                                | Synodontidae - Saurida sp.               | 3                                            | 5.1                  | 5.1                  |
|                | •                    |                     |                                | Trichiuridae - Trichiurus lepturus       | 3                                            | 17.0                 | 17.0                 |
|                |                      |                     |                                | Triglidae - Prionotus sp.                | 3                                            | 2.6                  | 2.6                  |
|                |                      |                     |                                | Unknown                                  | 167                                          | 1.4                  | 9.4                  |
| 12-01          | II-4                 | 505                 | 544                            | Bothidae                                 | 11                                           | 4.8                  | 4.8                  |
|                |                      |                     |                                | Bothidae - Paralichthys sp.              | 53                                           | 3.2                  | 4.6                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 21                                           | 2.3                  | 5.5                  |
|                |                      |                     |                                | Clupeidae                                | 213                                          | 3.2                  | 8.9                  |
|                |                      |                     |                                | Clupeidae - Brevoortia sp.               | 310                                          | 5.5                  | 9.3                  |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 11                                           | 4.5                  | 4.5                  |
|                |                      |                     |                                | Engraulidae - Engraulis eurystole        | 11                                           | 9.5                  | 9.5                  |
|                |                      |                     |                                | Gobiidae                                 | 149                                          | 2.7                  | 6.5                  |
|                |                      |                     |                                | Sciaenidae                               | 320                                          | 2.3                  | 4.1                  |
|                |                      |                     |                                | Sciaenidae - <u>Leiostomus</u> xanthurus | 107                                          | 2.8                  | 6.3                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 64                                           | 3.6                  | 6.7                  |
|                |                      |                     |                                | Sparidae                                 | 11                                           | 7.6                  | 7.6                  |
|                | •                    |                     |                                | Stromateidae - Peprilus burti            | 53                                           | 2.4                  | 3.1                  |
|                |                      |                     |                                | Synodontidae                             | 11                                           | 3.2                  | 3.2                  |
|                |                      |                     |                                | Unknown                                  | 374                                          | 1.9                  | 6.1                  |
| 12-01          | II-4                 | 333                 | 612                            | Bothidae                                 | 22                                           | 3.9                  | 4.0                  |
|                |                      |                     |                                | Bothidae - Paralichthys sp.              | 22                                           | 3.3                  | 3.8                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 100                                          | 1.6                  | 7.9                  |
|                |                      |                     |                                | Clupeidae                                | 223                                          | 3.7                  | 9.4                  |
|                |                      |                     |                                | Clupeidae - Brevoortia sp.               | 89                                           | 7.9                  | 9.0                  |
|                |                      |                     |                                | Clupeidae - Sardinella anchovia          | 78                                           | 7.1                  | 9.5                  |
|                |                      |                     |                                | Gadidae - <u>Urophycis</u> sp.           | 22                                           | 3.6                  | 4.3                  |
|                |                      |                     |                                | Gobiidae                                 | 189                                          | 2.1                  | 6.5                  |
|                |                      |                     | •                              | Mugilidae - Mugil sp.                    | 11                                           | 4.3                  | 4.3                  |
|                |                      |                     |                                | Sciaenidae                               | 223                                          | 2.4                  | 4.4                  |

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 12-01          | II-4                 | 333                 |                                | Sciaenidae - Leiostomus xanthurus        | . 56                             | 3.0                  | 5.5                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 111                              | 2.6                  | 5.8                  |
|                |                      |                     |                                | Serranidae - Diplectrum sp.              | 11                               | 3.9                  | 3.9                  |
|                |                      |                     |                                | Sparidae                                 | 111                              | 3.0                  | 4.6                  |
|                |                      |                     |                                | Stromateidae - Peprilus burti            | 78                               | 1.7                  | 2.4                  |
|                |                      |                     |                                | Triglidae - Prionotus sp.                | 11                               | 2.7                  | 2.7                  |
|                |                      |                     |                                | Unknown                                  | <sup>-</sup> 512                 | 1.5                  | 4.6                  |
| 12-01          | II <b>-</b> 5        | 505                 | 83 -                           | Congridae - Hildebrandia sp.             | 5                                | 7.0                  | 7.0                  |
|                |                      |                     |                                | Gobiidae                                 | 28                               | 5.1                  | 7.1                  |
|                |                      |                     |                                | Mugilidae - <u>Mugil</u> sp.             | 37                               | 2.5                  | 5.1                  |
|                |                      | •                   |                                | Myctophidae                              | 5                                | 4.4                  | 4.4                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.                | 5                                | 4.7                  | 4.7                  |
|                |                      |                     |                                | Serranidae - Diplectrum sp.              | 5                                | 7.1                  | 7.1                  |
| 12-01          | II <b>-</b> 5        | 333                 | 146                            | Bothidae                                 | 10                               | 3.8                  | 4.7                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.        | 15                               | 2.2                  | 7.5                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 83                               | 1.9                  | 7.0                  |
|                |                      |                     |                                | Chauliodontidae - Chauliodus sp.         | 5                                | 6.1                  | 6.1                  |
|                |                      |                     |                                | Clupeidae                                | 15                               | 6.2                  | 10.0                 |
|                |                      |                     |                                | Congridae - Hildebrandia sp.             | 19                               | 3.9                  | 6.4                  |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 10                               | 5.7                  | 8.5                  |
|                |                      |                     |                                | Gadidae - Urophycis sp.                  | 5                                | 4.1                  | 4.1                  |
|                |                      |                     |                                | Gobiidae                                 | 141                              | 3.6                  | 7.1                  |
|                |                      |                     |                                | Gonostomatidae - <u>Maurolicus</u> sp.   | 19                               | 3.4                  | 4.0                  |
|                |                      |                     |                                | Gonostomatidae - Vinciguerria sp.        | 5                                | 8.5                  | 8.5                  |
|                |                      |                     |                                | Mugilidae - Mugil sp.                    | <b>25</b> 2                      | .2.0                 |                      |
|                |                      |                     |                                | Myctophidae                              | 5                                | 2.9                  | 2.9                  |
|                |                      |                     |                                | Sciaenidae - Leiostomus xanthurus        | 15                               | 3.2                  | 4.4                  |
|                |                      |                     |                                | Sciaenidae - Micropogon undulatus        | 5                                | 5.1                  | 5.1                  |

Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m3 | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 12-01          | II-5                 | 333                 |                                | Scorpaenidae - Scorpaena sp.             | 5                                            | 3.4                  | 3.4                  |
|                | /                    | 333                 |                                | Stromateidae - Peprilus burti            | 15                                           | 1.9                  | 5.7                  |
|                |                      |                     |                                | Unknown                                  | 73                                           | 1.9                  | 3.7                  |
| 12-01          | 11-6                 | 505                 | 165                            | Bothidae                                 | 15                                           | 3.3                  | 4.8                  |
|                |                      |                     |                                | Bothidae - Monolene sp.                  | 9                                            | 5.4                  | 9.7                  |
|                |                      |                     |                                | Branchiostegidae - Caulolatilus sp.      | 6                                            | 2.5                  | 2.6                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros sp.        | 34                                           | 2.4                  | 5.1                  |
|                |                      |                     |                                | Bregmacerotidae - Bregmaceros atlanticus | 244                                          | 2.5                  | 12.0                 |
|                |                      |                     |                                | Chauliodontidae - Chauliodus sp.         | 18                                           | 5.0                  | 12.0                 |
|                |                      |                     |                                | Congridae - Ariosoma balearicum          | 3                                            | 24.0                 | 24.0                 |
|                |                      |                     |                                | Congridae - Hildebrandia sp.             | 46                                           | 4.6                  | 21.0                 |
|                |                      |                     |                                | Cynoglossidae - Symphurus sp.            | 21                                           | 3.9                  | 6.0                  |
|                |                      |                     |                                | Gadidae - <u>Urophycis</u> sp.           | 12                                           | 1.9                  | 4.0                  |
|                |                      |                     |                                | Gobiidae                                 | 1,145                                        | 4.0                  | 9.8                  |
|                |                      |                     |                                | Gonostomatidae                           | 12                                           | 3.2                  | 5.1                  |
|                |                      |                     |                                | Labridae                                 | 3                                            | 8.8                  | 8.8                  |
|                |                      |                     |                                | Moringuidae - Neoconger mucronatus       | 15                                           | 9.3                  | 16.0                 |
|                |                      |                     |                                | Mugilidae - <u>Mugil</u> sp.             | 107                                          | 1.6                  | 5.2                  |
|                |                      |                     |                                | Myctophidae                              | 12                                           | 3.3                  | 5.4                  |
|                |                      |                     |                                | Myctophidae - Bolinichthys sp.           | 3                                            | 6.9                  | 6.9                  |
|                |                      |                     |                                | Myctophidae - Ceratoscopelus sp.         | 3                                            | 3.4                  | 3.4                  |
|                |                      |                     |                                | Myctophidae - Diaphus sp.                | 9                                            | 3.3                  | 4.2                  |
|                |                      |                     |                                | Myctophidae - Hygophum sp.               | 9                                            | 3.5                  | 6.0                  |
|                |                      |                     |                                | Myctophidae - Hygophum reinhardti        | 3                                            | 12.0                 | 12.0                 |
|                |                      |                     |                                | Nettastomidae                            | 6                                            | 8.2                  | 14.0                 |
|                |                      |                     |                                | Ophichthidae                             | 12                                           | 6.6                  | 18.0                 |
|                |                      |                     |                                | Ophidiidae                               | 9                                            | 4.4                  | 8.0                  |
|                |                      |                     |                                | Paralepididae                            | 3                                            | 3.0                  | 3.0                  |
|                |                      |                     |                                | Paralepididae - <u>Sudis</u> sp.         | 3                                            | 7.7                  | 7.7                  |

Appendix table 1. (Continued)

|        |           | Mesh | Number   | <u> </u>                                        | Number               | Min.        | Max. |
|--------|-----------|------|----------|-------------------------------------------------|----------------------|-------------|------|
| Date   | Transect- | size | eggs per |                                                 | larvae per           | size        | size |
| (1976) | station   | (µ)  | 1,000 m3 | Larvae                                          | 1,000 m <sup>3</sup> | (mm)        | (mm) |
|        | _         |      |          | •                                               | _                    | ١. ٥        | ١. ٥ |
| 12-01  | 11-6      | 505  |          | Priacanthidae                                   | 3                    | 4.0         | 4.0  |
|        |           |      |          | Scaridae                                        | 3                    | 9.2         | 9.2  |
|        |           |      |          | Sciaenidae - <u>Leiostomus</u> <u>xanthurus</u> | 3                    | 4.2         | 4.2  |
|        |           |      |          | Serranidae                                      | 6                    | 3.4         | 3.6  |
|        |           |      |          | Sparidae - Stenotomus sp.                       | 9<br>3               | 7.6         | 10.9 |
|        |           |      |          | Stromateidae - Peprilus burti                   | 3                    | 2.8         | 2.8  |
|        |           |      |          | Trichiuridae - Diplospinous multistriatus       | 3                    | 3.7         | 3.7  |
|        |           |      |          | Trichiuridae - Trichiurus lepturus              | 3                    | 8.9         | 8.9  |
|        |           |      |          | Unknown                                         | 52                   | 2.1         | 11.0 |
| 20.03  | TT (      | 222  | 160      | Bothidae                                        | 23                   | 3.4         | 7.8  |
| 12-01  | 11-6      | 333  | 169      | ·                                               | 3                    | 7.5         | 7.5  |
|        |           |      |          | Bothidae - Bothus sp.                           | 3<br>3               | 3.0         | 3.0  |
|        | •         |      |          | Bothidae - Paralichthys sp.                     | 3.<br>3              | 3.2         | 3.2  |
|        |           |      |          | Branchiostegidae - Caulolatilus sp.             | 20                   | 2.1         | 4.5  |
|        |           |      |          | Bregmacerotidae - Bregmaceros sp.               | 243                  | 2.2         | 11.0 |
|        |           |      |          | Bregmacerotidae - Bregmaceros atlanticus        |                      | 9.2         | 9.2  |
|        | •         |      |          | Clupeidae                                       | 3                    | -           | 29.0 |
|        |           |      |          | Congridae - Ariosoma balearicum                 | 3                    | 29.0<br>5.4 | 18.0 |
|        |           |      |          | Congridae - Hildebrandia sp.                    | 45                   | 3.7         | 5.1  |
|        |           |      |          | Cynoglossidae - Symphurus sp.                   | 10                   |             | 4.8  |
|        |           |      |          | Engraulidae                                     | 3                    | 4.8         |      |
|        |           |      |          | Gadidae                                         | 10                   | 1.6         | 2.5  |
|        |           |      |          | Gadidae - <u>Urophycis</u> sp.                  | 13                   | 2.3         | 3.2  |
|        |           |      |          | Gobiidae                                        | 947                  | 3.1         | 6.6  |
|        |           |      |          | Gonostomatidae                                  | 26                   | 2.6         | 6.0  |
|        |           |      |          | Gonostomatidae - <u>Vinciguerria</u> sp.        | 7                    | 6.5         | 10.0 |
|        |           |      |          | Moringuidae - Neoconger mucronatus              | 10                   | 14.0        | 20.0 |
|        |           |      |          | Mugilidae - Mugil sp.                           | 114                  | 2.0         | 6.5  |
|        |           |      |          | Myctophidae                                     | 36                   | 2.1         | 6.5  |
|        |           |      |          | Myctophidae - Benthosema suborbitale            | 3                    | 8.5         | 8.5  |

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Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m3 | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------|----------------------|----------------------|
| 12-01          | II <b>-</b> 6        | 333                 | •                                          | Myctophidae - Diaphus sp.                | 20                               | 2.8                  | 5.8                  |
|                |                      |                     |                                            | Myctophidae - Myctophum sp.              | 3                                | 4.1                  | 4.1                  |
|                |                      |                     |                                            | Myctophidae - Myctophum obtusirostre     | 3                                | 5.8                  | 5.8                  |
|                |                      |                     |                                            | Nettastomidae                            | 3                                | 11.0                 | 11.0                 |
|                |                      |                     |                                            | Ophichthidae                             | 10                               | 4.0                  | 23.0                 |
|                |                      |                     |                                            | Ophidiidae                               | 10                               | 4.6                  | 8.2                  |
|                |                      |                     |                                            | Paralepididae                            | 3                                | 6.8                  | 6.8                  |
|                |                      |                     |                                            | Priacanthidae                            | 10                               | 4.1                  | 5.0                  |
|                |                      |                     |                                            | Scaridae                                 | 7                                | 6.7                  | 8.6                  |
|                |                      |                     |                                            | Sciaenidae                               | 13                               | 2.5                  | 4.3                  |
|                |                      |                     |                                            | Scorpaenidae - Scorpaena sp.             | 10                               | 3.1                  | 4.3                  |
|                |                      |                     |                                            | Stromateidae - Peprilus burti            | 7                                | 2.5                  | 3.4                  |
|                |                      |                     |                                            | Trichiuridae                             | 3                                | 5.3                  | 5.3                  |
|                |                      |                     |                                            | Unknown                                  | 101                              | 2.0                  | 6.2                  |
| 12-01          | II <b>-</b> 7        | 505                 | 302                                        | Bothidae                                 | 27                               | 2.4                  | 7.6                  |
|                |                      |                     |                                            | Bothidae - Bothus sp.                    | 2                                | 6.4                  | 6.4                  |
|                |                      |                     |                                            | Bothidae - Bothus ocellatus              | 2                                | 7.3                  | 7.3                  |
|                |                      |                     |                                            | Bothidae - Paralichthys sp.              | 2                                | 5.0                  | 5.0                  |
|                |                      |                     |                                            | Bothidae - Syacium sp.                   | 2                                | 4.8                  | 4.8                  |
|                |                      |                     |                                            | Branchiostegidae - Caulolatilus sp.      | 5                                | 2.0                  | 2.8                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | . 2                              | 3.8                  | 3.8                  |
|                |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 44                               | 1.6                  | 7.9                  |
|                |                      |                     |                                            | Chauliodontidae - Chauliodus sp.         | 31                               | 4.5                  | 30.0                 |
|                |                      |                     |                                            | Clupeidae                                | 46                               | 2.9                  | 8.5                  |
|                |                      |                     |                                            | Clupeidae - Brevoortia sp.               | 22                               | 7.4                  | 10.5                 |
|                |                      |                     |                                            | Congridae - Hildebrandia sp.             | 29                               | 5.5                  | 18.0                 |
|                |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 10                               | 3.8                  | 5.8                  |
|                |                      |                     |                                            | Engraulidae - Engraulis eurystole        | 2                                | 17.2                 | 17.2                 |
|                |                      |                     |                                            | Gadidae - <u>Urophycis</u> sp.           | 5                                | 2.4                  | 4.5                  |
|                |                      |                     |                                            | Gobiidae                                 | 126                              | 2.5                  | 5.8                  |

# Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                    | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|-------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 12-01       | II <b>-</b> 7        | 505                 |                                            | Gonostomatidae - Gonostomus atlanticum    | 2                                            | 6.3                  | 6.3                  |
| 12-01       | **-1                 | 707                 |                                            | Gonostomatidae - Maurolicus sp.           | 34                                           | 3.0                  | 9.8                  |
|             |                      |                     |                                            | Labridae - Halichoeres sp.                | 2                                            | 9.6                  | 9.6                  |
|             |                      |                     |                                            | Microdesmidae - Microdesmus sp.           | 2                                            | 9.3                  | 9.3                  |
|             |                      |                     |                                            | Moringuidae - Neoconger mucronatus        | 5                                            | 6.1                  | 17.0                 |
|             |                      |                     |                                            | Mugilidae - Mugil sp.                     | 555<br>555                                   | 4.4                  | 6.3                  |
|             |                      |                     |                                            | Myctophidae Myctophidae                   | 3                                            | 4.2                  | 7.4                  |
|             |                      |                     |                                            | Myctophidae - Ceratoscopelus sp.          | 2                                            | 2.6                  | 2.6                  |
|             |                      |                     |                                            | Myctophidae - Diaphus sp.                 | 12                                           | 3.0                  | 5.3                  |
|             |                      |                     | •                                          | Myctophidae - Hygophum sp.                | 5                                            | 5.8                  | 7.4                  |
|             |                      |                     | •                                          | Myctophidae - Hygophum reinhardti         | 3                                            | 10.0                 | 13.0                 |
|             |                      |                     |                                            | Myctophidae - Myctophum sp.               | 3                                            | 5.7                  | 7.9                  |
|             |                      |                     |                                            | Myctophidae - Taaningichthys sp.          | 3                                            | 4.9                  | 7.1                  |
|             |                      |                     |                                            | Nettastomidae                             | 12                                           | 5.7                  | 12.0                 |
|             |                      |                     |                                            | Ophichthidae                              | 10                                           | 4.2                  | 24.0                 |
|             |                      |                     |                                            | Ophidiidae                                | 3                                            | 4.2                  | 4.7                  |
|             |                      |                     |                                            | Ophidiidae - Rissola marginata            | 2                                            | 8.0                  | 8.0                  |
|             |                      |                     |                                            | Paralepididae                             | 7                                            | 3.7                  | 6.2                  |
|             | -                    |                     |                                            | Scaridae                                  | 3                                            | 6.4                  | 8.6                  |
|             |                      |                     |                                            | Sciaenidae                                | 58                                           | 2.1                  | 5.2                  |
|             |                      |                     |                                            | Sciaenidae - Leiostomus xanthurus         | 14                                           | 2.2                  | 5.4                  |
|             |                      |                     |                                            | Sciaenidae - Micropogon undulatus         | 158                                          | 2.9                  | 7.0                  |
|             |                      |                     | •                                          | Serranidae                                | 19                                           | 2.3                  | 4.5                  |
|             |                      |                     |                                            | Serranidae - Diplectrum sp.               | 2                                            | 5.1                  | 5.1                  |
|             |                      |                     |                                            | Stromateidae - Peprilus burti             | 22                                           | 2.1                  | 3.2                  |
|             |                      |                     |                                            | Synodontidae - Saurida sp.                | 2                                            | 5.4                  | 5.4                  |
|             |                      |                     |                                            | Trichiuridae - Diplospinous multistriatus | 3                                            | 3.3                  | 10.0                 |
|             |                      |                     |                                            | Trichiuridae - Trichiurus sp.             | 2                                            | 6.2                  | 6.2                  |
|             |                      |                     |                                            | Triglidae - Prionotus sp.                 | 17                                           | 2.1                  | 4.7                  |
|             |                      |                     |                                            | · Unknown                                 |                                              | 1.5                  | 9.7                  |

# Appendix table 1. (Continued)

| Date (1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                   | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|-------------|----------------------|---------------------|--------------------------------------------|------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 12-01       | II <b>-</b> 7        | 333                 | 282                                        | Argentinidae                             | 2                                            | 7.6                  | 7.6                  |
|             | ,                    |                     | -                                          | Bothidae                                 | 20                                           | 3.2                  | 5.2                  |
|             |                      |                     |                                            | Bothidae - Bothus ocellatus              | 2                                            | 6.5                  | 6.5                  |
|             |                      |                     |                                            | Bothidae - Paralichthys sp.              | 5                                            | 3.6                  | 4.0                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros sp.        | 5                                            | 2.0                  | 4.5                  |
|             |                      |                     |                                            | Bregmacerotidae - Bregmaceros atlanticus | 109                                          | 1.7                  | 7.2                  |
|             |                      |                     |                                            | Chauliodontidae - Chauliodus sp.         | 43                                           | 7.0                  | 21.0                 |
|             |                      |                     |                                            | Clupeidae                                | 2                                            | 5.6                  | 5.6                  |
|             |                      |                     |                                            | Clupeidae - Brevoortia sp.               | 4                                            | 7.0                  | 8.0                  |
|             |                      |                     |                                            | Congridae - Ariosoma balearicum          | 2                                            | 19.5                 | 19.5                 |
|             |                      |                     |                                            | Congridae - Hildebrandia sp.             | 22                                           | 4.9                  | 17.7                 |
|             |                      |                     |                                            | Cynoglossidae - Symphurus sp.            | 9                                            | 3.9                  | 6.3                  |
|             |                      |                     |                                            | Cynoglossidae - Symphurus plagiusa       | 2                                            | 8.8                  | 8.8                  |
|             |                      |                     |                                            | Gadidae - Urophycis sp.                  | 29                                           | 1.8                  | 9.9                  |
|             |                      |                     |                                            | Gobiidae                                 | 170                                          | 1.8                  | 7.5                  |
|             |                      |                     |                                            | Gonostomatidae                           | 11                                           | 2.9                  | 6.3                  |
|             |                      |                     |                                            | Gonostomatidae - Maurolicus sp.          | 47                                           | 2.9                  | 6.9                  |
|             |                      |                     |                                            | Gonostomatidae - Vinciguerria sp.        | 2                                            | 7.9                  | 7.9                  |
|             |                      |                     |                                            | Microdesmidae - Microdesmus sp.          | 5                                            | 4.8                  | 10.1                 |
|             |                      |                     |                                            | Moringuidae - Neoconger mucronatus       | 2                                            | 17.0                 | 17.0                 |
|             |                      |                     |                                            | Mugilidae - Mugil sp.                    | 599                                          | 2.2                  | 6.4                  |
|             |                      |                     |                                            | Myctophidae                              | 32                                           | 2.4                  | 6.4                  |
|             |                      |                     |                                            | Myctophidae - Ceratoscopelus sp.         | 2                                            | 2.9                  | 2.9                  |
|             |                      |                     |                                            | Myctophidae - Diaphus sp.                | 7                                            | 2.8                  | 4.0                  |
|             |                      |                     |                                            | Myctophidae - Hygophum sp.               | 2                                            | 6.2                  | 6.2                  |
|             |                      |                     |                                            | Myctophidae - Myctophum sp.              | 5                                            | 9.1                  | 11.4                 |
|             |                      |                     |                                            | Myctophidae - Myctophum obtusirostre     | 2                                            | 4.5                  | 4.5                  |
|             |                      |                     |                                            | Nettastomidae                            | 14                                           | 7.3                  | 12.0                 |
|             |                      |                     |                                            | Ophichthidae                             | 5                                            | 4.6                  | 10.1                 |
|             |                      |                     |                                            | Ophidiidae                               | 11                                           | 2.3                  | 19.6                 |

# Appendix table 1. (Continued)

| Date<br>(1976) | Transect-<br>station | Mesh<br>size<br>(µ) | Number<br>eggs per<br>1,000 m <sup>3</sup> | Larvae                                         | Number<br>larvae per<br>1,000 m <sup>3</sup> | Min.<br>size<br>(mm) | Max.<br>size<br>(mm) |
|----------------|----------------------|---------------------|--------------------------------------------|------------------------------------------------|----------------------------------------------|----------------------|----------------------|
| 12-01          | II <b>-7</b>         | 333                 |                                            | Paralepididae - <u>Lestidiops</u> sp. Scaridae | 1 <sub>4</sub><br>2                          | 18.7<br>8.8          | 21.0                 |
|                |                      |                     |                                            | Sciaenidae                                     | 95                                           | 2.0                  | 4.5                  |
|                |                      |                     |                                            | Sciaenidae - Leiostomus xanthurus              | 16                                           | 2.8                  | 5.7                  |
|                |                      |                     |                                            | Sciaenidae - Micropogon undulatus              | 13                                           | 2.7                  | 5.4                  |
|                |                      |                     |                                            | Serranidae                                     | 14                                           | 2.3                  | 4.4                  |
|                |                      |                     |                                            | Serranidae - Diplectrum sp.                    | 7†                                           | 5.0                  | 5.1                  |
|                |                      |                     |                                            | Sparidae                                       | 13                                           | 3.3                  | 4.7                  |
|                |                      |                     |                                            | Stromateidae - Peprilus burti                  | 34                                           | 2.0                  | 4.9                  |
|                |                      |                     |                                            | Triglidae - Prionotus sp.                      | 13                                           | 2.7                  | 6.5                  |
|                |                      |                     |                                            | Unknown                                        | 193                                          | 1.5                  | 6.8                  |

SPECIAL APPENDIX

(Table 2)

Appendix table 2. Comparison of salinity and temperature on the distribution and abundance of selected fish larval taxon during 1976.

|          | ·             | the control of the co | Abundance                       |               |                |
|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|----------------|
|          | Transect-     | Taxon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | No. per<br>1,000 m <sup>3</sup> | Salinity 0/00 | Temperature °C |
| Cruise   | station       | Family - genera & species                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1,000 m <sup>3</sup>            | (mean)        | (mean)         |
|          |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |               |                |
| 1        | I-1           | Bothidae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.0                             | 33.1          | 15.3           |
| 1        | I <b>-</b> 2  | <b>11</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 16.9                            | 35.5          | 18.9           |
| l        | I <b>-</b> 3  | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 33.1                            | 36.3          | 20.2           |
| 1        | II-1          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10.9                            | 33.1          | 15.8           |
| 1        | II <b>-</b> 2 | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.1                             | 35.7          | 19.3           |
| ı        | II <b>-</b> 3 | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4.2                             | 36.3          | 19.7           |
| l.       | II-4          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 44.8                            | 33.5          | 16.6           |
| 1        | II <b>-</b> 5 | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.5                             | <b>36.</b> 2  | 20.6           |
| 1        | II <b>-</b> 6 | "                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 9.0                             | 36.2          | 20.4           |
| 1        | II <b>-</b> 7 | ***                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8.0                             | -             | _              |
| 1        | III-i         | TT .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 9.0                             | 32.6          | 15.0           |
| 1        | III-2         | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 15.3                            | 36 <b>.</b> 2 | 20.7           |
| 1        | III-3         | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10.3                            | 36.3          | 20.5           |
| 1        | IV-1          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 42.0                            | 32.6          | 15.1           |
| ī        | IV-2          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 14.4                            | 35.4          | 19.9           |
| ī        | IV-3          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 14.2                            | 36.2          | 20.9           |
| 2        | II-1          | tt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8.5                             | 29.7          | 17.8           |
| 2        | II <b>-</b> 2 | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 30.2                            | 35.8          | 20.5           |
| 2        | II <b>-</b> 3 | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.3                             | 36.1          | 19.8           |
| 2        | II-4          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.0                             | 32.9          | 18.3           |
| 2        | II <b>-</b> 5 | ††                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 31.3                            | 36.1          | 20.7           |
| 2        | II <b>-</b> 6 | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.9                             | 36.1          | 20.2           |
| 2        | II-7          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.5                             | 20.1          | -              |
| 3        | II-l          | **                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 28.0                            | 30 <b>.</b> 2 | 18.6           |
| 3        | II-2          | **                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 18.5                            | 35.2          | 19.9           |
| <u>ა</u> |               | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 18.6                            | 35.2<br>36.0  | 20.3           |
| 3<br>3   | II-3          | "                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                 |               |                |
| 3        | II-4          | "                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 40.7                            | 34.7          | 19.8           |
| 3        | II <b>-</b> 5 | ***                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 22.2                            | 35.7          | 20.6           |
| 3        | II <b>-</b> 6 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 14.3                            | 36.0          | 20.6           |
| 3        | II <b>-</b> 7 | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 21.6                            | _             | <del>-</del>   |

Appendix table 2. (Continued).

| Cruise      | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|-------------|----------------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| 14          | т 1                  | D-43.23-                           |                                              | 20.1.                               | 07 1                  |
| 14<br>14    | I-1                  | Bothidae                           | 363.0                                        | 30.4                                | 27.4                  |
| 4<br>1.     | I-2                  |                                    | 332.3                                        | 32.8                                | 24.4                  |
| 4           | I <b>-</b> 3         | "                                  | 56.8                                         | 35.6                                | 23.2                  |
| 4<br>\      | II-1                 | " "                                | 61.0                                         | 31.3                                | 26.4                  |
| 4           | II <b>-</b> 2        | <br>11                             | 356.7                                        | -                                   | 23.9                  |
| 4           | II-3                 | " "                                | 135.1                                        | 35.9                                | 22.4                  |
| <u>4</u>    | II-4                 | ''<br>ii                           | 191.8                                        | <u></u>                             | <b>-</b>              |
| - 4         | II <b>-</b> 5        | " "                                | 137.9                                        | 35.4                                | 24.4                  |
| 14          | II <b>-</b> 6        | " "                                | 112.8                                        | 35.6                                | 23.8                  |
| 4           | II <b>-</b> 7        | "                                  | 41.9                                         |                                     |                       |
| 4           | III-1                |                                    | 190.2                                        | 32.6                                | 25.6                  |
| 4           | III-2                | " "                                | 344.0                                        | 34.8                                | 23.3                  |
| 4           | III-3                |                                    | 90.8                                         | 35.1                                | 22.6                  |
| 4           | IV-l                 | <b>11</b>                          | 25.6                                         | 33.7                                | 24.6                  |
| 4           | IV-2                 | 11                                 | 293.8                                        | 34.7                                | 24.2                  |
| 14          | IV-3                 | 11                                 | 57.3                                         | 35.6                                | 22.8                  |
| 5           | II-1                 | 11                                 | 68.6                                         | 34.2                                | 27.8                  |
| 5           | II <b>-</b> 2        | 11                                 | 373.4                                        | 35.7                                | 26.0                  |
| 5           | II <b>-</b> 3        | 11                                 | 342.6                                        | 36.0                                | 23.4                  |
| 5           | II <b>-</b> 4        | tt                                 | 239.0                                        | 34.9                                | 27.2                  |
| 5           | II <b>-</b> 5        |                                    | 19.2                                         | 35.9                                | 25.1                  |
| 5<br>5<br>6 | II <b>-</b> 6        | 11                                 | 388.3                                        | 35.9                                | 24.4                  |
| 5           | II <b>-</b> 7        | tt                                 | 6.5                                          | -                                   | _                     |
|             | II-1                 | 11                                 | 722.1                                        | 37.4                                | 25.6                  |
| 6           | II <b>-</b> 2        | H                                  | 311.1                                        | 36.2                                | 27.4                  |
| 6           | II <b>-</b> 3        | 11                                 | 439.2                                        | 36.3                                | 26.7                  |
| 6           | II-4                 | 11                                 | 2,043.0                                      | 36.6                                | 28.1                  |
| 6           | II <b>-</b> 5        | "                                  | 185.9                                        | 35.5                                | 28.0                  |
| 6           | II <b>-</b> 6        | 11                                 | 600.9                                        | 35.9                                | 26.9                  |
| 6           | II <b>-</b> 7        | 11                                 | 320.0                                        | <del>-</del>                        | <del>-</del>          |

Appendix table 2. (Continued).

| Cruise | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|--------|----------------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| 7      | I-1                  | Bothidae                           | 138.8                                        | 33.5                                | 28.5                  |
| 7      | I <b>-</b> 2         | TT .                               | 1,204.5                                      | 35.5                                | 28.4                  |
| 7      | I-3                  | 11                                 | 72.4                                         | 36.4                                | 25.3                  |
| 7      | II-1                 | tt .                               | 31.6                                         | 35.3                                | 29.1                  |
| 7      | II <b>-</b> 2        | 11                                 | 325.1                                        | 36.2                                | 27.4                  |
| 7      | II-3                 | 11                                 | 396.6                                        | 36.6                                | 23.2                  |
| 7      | II-4                 | 11                                 | 110.7                                        | 35.8                                | 28.7                  |
| 7      | II <b>-</b> 5        | 11                                 | 304.5                                        | 36.3                                | 24.4                  |
| 7      | II <b>-</b> -6       | 11                                 | 513.1                                        | 36.6                                | 23.5                  |
| 7      | II <b>-</b> 7        | 11                                 | 576.9                                        | _                                   |                       |
| 7      | III-1                | 11                                 | 358.2                                        | 36.2                                | 29.2                  |
| 7      | III <b>–</b> 2       | tt                                 | 554.1                                        | 36.3                                | 25 <b>.</b> 2         |
| 7      | III-3                | 11                                 | 156.4                                        | 36.5                                | 23.3                  |
| 7      | IV-1                 | 11                                 | 109.4                                        | 36.3                                | 28.6                  |
| 7      | IV-2                 | ff .                               | 143.4                                        | 36.7                                | 25.8                  |
| 7      | IV-3                 | 11                                 | 251.5                                        | 36.5                                | 25.4                  |
| 8      | II-1                 | 11                                 | 44.4                                         | 32.4                                | 20.4                  |
| 8      | II <b>-</b> 2        |                                    | 380.4                                        | 35.9                                | 23.3                  |
| 8      | II <b>-</b> 3        | · ·                                | 130.6                                        | 36.3                                | 21.1                  |
| 8      | II-4                 | 11                                 | 276.2                                        | 35.4                                | 22.6                  |
| 8      | II <b>-</b> 5        | 11                                 | 139.2                                        | 36.3                                | 23.3                  |
| 8      | II-6                 | 11                                 | 78.5                                         | 36.3                                | 22.4                  |
| 8      | II-7                 | 11                                 | 104.0                                        | 36.2                                | 18.9                  |
| 9      | II-l                 | 11                                 | 99.9                                         | 33.5                                | 14.9                  |
| 9      | II <b>-</b> 2        | 11                                 | 120.4                                        | 35.7                                | 19.0                  |
| 9      | II-3                 | 11                                 | 47.2                                         | 36.3                                | 20.3                  |
| 9      | II-4                 | 11                                 | 54.5                                         | 36 <b>.</b> 2                       | 19.5                  |
| 9      | II <b>-</b> 5        | 11                                 | 9.7                                          | 36.3                                | 21.1                  |
| 9      | 11-6                 | 11                                 | 34.5                                         | 36.3                                | 21.0                  |
| 9      | II <b>-</b> 7        | n                                  | 32.1                                         | 36.3                                | 18.6                  |

Appendix table 2. (Continued).

|        |                | <u></u>                   | Abundance            |               | _              |
|--------|----------------|---------------------------|----------------------|---------------|----------------|
|        | Transect-      | Taxon                     | No. per              | Salinity 0/00 | Temperature °C |
| Cruise | station        | Family - genera & species | 1,000 m <sup>3</sup> | (mean)        | (mean)         |
|        |                |                           |                      |               |                |
| 1      | I-1            | Bothidae Bothus ocellatus | 0                    | 33.1          | 15.3           |
| 1      | I <b>-</b> 2   | "                         | . 0                  | 35.5          | 18.9           |
| 1      | I <b>-</b> 3   | "                         | 0                    | 36.3          | 20.2           |
| 1      | II-1           | ***                       | 0 .                  | 33.1          | 15.8           |
| 1      | II <b>-</b> 2  | 11                        | 0                    | 35.7          | 19.3           |
| 1      | II-3           | 11                        | 0                    | 36.3          | 19.7           |
| 1      | II-4           |                           | 0                    | 33.5          | 16.6           |
| 1      | II-5           | ff .                      | 0                    | 36.2          | 20.6           |
| ı      | 11-6           | "                         | 0                    | <b>36.</b> 2  | 20.4           |
| 1      | II <b>-</b> 7  | 11                        | 0                    | _             | _              |
| 1      | III-1          | 11                        | 0                    | 32.6          | 15.0           |
| 1      | III <b>-</b> 2 | 11                        | 0                    | 36.2          | 20.7           |
| 1      | III-3          | 11                        | 2.1                  | 36.3          | 20.5           |
| 1      | IV-1           | tt .                      | 0 ·                  | 32.6          | 15.1           |
| 1      | IV-2           | 11                        | 0                    | 35.4          | 19.9           |
| 1      | IV-3           | 11                        | 0                    | 36.2          | 20.9           |
| 2      | II-1           | 11                        | Ō                    | 29.7          | 17.8           |
| 2      | II <b>-</b> 2  |                           | 6.0                  | 35.8          | 20.5           |
| 2      | II <b>-</b> 3  | 11                        | 0                    | 36.1          | 19.8           |
| 2      | II-4           | 11                        | Ö                    | 32.9          | 18.3           |
| 2      | II <b>-</b> 5  | 11                        | Ö                    | 36.1          | 20.7           |
| 2      | II <b>-</b> 6  | 11                        | Ō                    | 36.1          | 20.2           |
| 2      | II <b>-</b> 7  | i u                       | Ö                    | _             |                |
| 3      | II-1           | 11                        | Ö                    | 30.2          | 18.6           |
| 3      | II <b>-</b> 2  | 11                        | 10.6                 | 35.2          | 19.9           |
| 3      | II-3           | 11                        | 9.4                  | 36.0          | 20.3           |
| 3      | II-4           | 11                        | 9.9                  | 34.7          | 19.8           |
| 3      | II <b>-</b> 5  | 11                        | 5.0                  | 35.7          | 20.6           |
| 3      | II <b>-</b> 6  | 11                        | 7.2                  | 36.0          | 20.6           |
| . 3    | II-7           | 11                        | 2.7                  | 30.0          | 20.0           |
| . 3    | T T            |                           | ۲۰۱                  | <del>-</del>  | -              |

Appendix table 2. (Continued).

| Cruise     | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|------------|----------------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| 14         | I-1                  | Bothidae Bothus ocellatus          | 56.3                                         | 30.4                                | 27.4                  |
| 4          | I <b>-</b> 2         | 11 00011430                        | 0                                            | 32.8                                | 24.4                  |
| Ţ.         | I <b>-</b> 3         | 11                                 | 21.0                                         | 35.6                                | 23.2                  |
| ) <u>i</u> | II-1                 | 11                                 | 0 .                                          | 31.3                                | 26.4                  |
| ) <u>.</u> | II <u>-</u> 2        | 11                                 | 6.5                                          | -                                   | 23.9                  |
| 14         | II <b>-</b> 3        | 11                                 | 16.7                                         | 35.9                                | 22.4                  |
| 14         | II <b>-</b> 4        | 11                                 | 12.9                                         | _                                   |                       |
| 4          | II <b>~</b> 5        | · ·                                | 16.6                                         | 35.4                                | 24.4                  |
| 4          | II <b>-</b> 6        | 11                                 | 11.1                                         | 35.6                                | 23.8                  |
| Ĺ          | II <b>-</b> 7        | 11                                 | 3.4                                          | -                                   |                       |
| 4          | III-1                | 11                                 | 10.6                                         | 32.6                                | 25.6                  |
| 14         | III-2                | 11                                 | 17.5                                         | 34.8                                | 23.3                  |
| 4          | III-3                | 11                                 | 14.3                                         | 35.1                                | 22.6                  |
| 4          | IV-1                 | 11                                 | 0 ·                                          | 33.7                                | 24.6                  |
| 14         | IV-2                 | 11                                 | 21.5                                         | 34.7                                | 24.2                  |
| 4          | IV-3                 | 11                                 | 0                                            | 35.6                                | 22.8                  |
| 5          | II-1                 | n .                                | 12.4                                         | 34.2                                | 27.8                  |
| 5          | II-2                 | 11                                 | 36.0                                         | 35.7                                | 26.0                  |
| 5          | II <b>-</b> 3        | 11                                 | 22.3                                         | 36.0                                | 23.4                  |
| 5          | II-4                 | 11                                 | 24.4                                         | 34.9                                | 27.2                  |
|            | II-5                 | 11                                 | 11.5                                         | 35.9                                | 25.1                  |
| 5<br>5     | II <b>-</b> 6        | n                                  | 76.2                                         | 35.9                                | 24.4                  |
| 5          | II <b>-</b> 7        | i, n                               | 2.2                                          | -                                   | -                     |
| 6          | II-1                 | II .                               | 0                                            | 37.4                                | 25.6                  |
| 6          | II <b>-</b> 2        | II .                               | 9.1                                          | 36.2                                | 27.4                  |
| 6          | II-3                 | n                                  | 52.6                                         | 36.3                                | 26.7                  |
| 6          | II-4                 | 11                                 | 0                                            | 36.6                                | 28.1                  |
| 6          | II <b>-</b> 5        | 11                                 | 11.4                                         | 35.5                                | 28.0                  |
| 6          | II <b>-</b> 6        | n .                                | 24.3                                         | 35.9                                | 26.9                  |
| 6          | II <b>-</b> 7        | 11                                 | 44.1                                         | _                                   | -                     |

Appendix table 2. (Continued).

| Cruise      | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity O/oo (mean) | Temperature °C (mean) |
|-------------|----------------------|------------------------------------|----------------------------------------------|----------------------|-----------------------|
| 7           | I-1                  | Bothidae Bothus ocellatus          | 38.2                                         | 33.5                 | 28.5                  |
| 7           | II <b>-</b> 2        | 11                                 | 143.6                                        | 35.5                 | 28.4                  |
| 7           | I <b>-</b> 3         | 11                                 | 4.3                                          | 36.4                 | 25.3                  |
| 7           | II-1                 | 11                                 | 0 .                                          | 35.3                 | 29.1                  |
| 7           | II <b>-</b> 2        | Ħ                                  | 20.0                                         | 36.2                 | 27.4                  |
| 7           | II <b>-</b> 3        | II .                               | 85.6                                         | 36.6                 | 23.2                  |
| 7           | II <b>-</b> 4        | II .                               | 36.9                                         | 35.8                 | 28.7                  |
| 7           | II <b>-</b> 5        | tt .                               | 72.9                                         | 36.3                 | 24.4                  |
| 7           | II <b>-</b> 6        | H .                                | 274.3                                        | 36.6                 | 23.5                  |
| 7           | II <b>-</b> 7        | H                                  | 196.8                                        | _                    | -<br>-                |
| 7           | III-1                | 11                                 | 25.8                                         | 36.2                 | 29.2                  |
| 7           | III-2                | 11                                 | 23.4                                         | 36.3                 | 25.2                  |
| 7           | III-3                | 11                                 | 20.6                                         | 36.5                 | 23.3                  |
| 7           | IV-1                 | 11                                 | 34.7                                         | 36.3                 | 28.6                  |
| 7           | IV-2                 | 11                                 | 13.9                                         | 36.7                 | 25.8                  |
| 7           | IV-3                 | 11                                 | 33.2                                         | 36.5                 | 25.4                  |
| 8           | II-1                 | 11                                 | 0                                            | 32.4                 | 20.4                  |
| 8<br>8<br>8 | II-2                 | • 11                               | 105.9                                        | 35.9                 | 23.3                  |
|             | II-3                 | 11                                 | 10.0                                         | 36.3                 | 21.1                  |
| 8           | II-4                 | 11                                 | 10.9                                         | 35.4                 | 22.6                  |
| 8           | II <b>-</b> 5        | 11                                 | 7.6                                          | 36.3                 | 23.3                  |
| 8           | 11-6                 | ' n                                | 7.3                                          | 36.3                 | 22.4                  |
| 8           | II <b>-</b> 7        | n e                                | 0                                            | 36.2                 | 18.9                  |
| 9           | II-1                 | 11                                 | _                                            | 33.5                 | 14.9                  |
| 9           | II-2                 | 11                                 | _                                            | 35.7                 | 19.0                  |
| 9           | II-3                 | 11                                 | _                                            | 36.3                 | 20.3                  |
| 9           | II-4                 | 11                                 | -                                            | 36.2                 | 19.5                  |
| 9           | II-5                 | ıı .                               | _                                            | 36.3                 | 21.1                  |
| ģ           | II <b>-</b> 6        | 11                                 | _                                            | 36.3                 | 21.1                  |
| 9           | II <b>-</b> 7        | "                                  | 1.7                                          | 36.3                 | 18.6                  |

Appendix table 2. (Continued).

| Cruise | Transect-<br>station | Taxon Family - genera & species       | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|--------|----------------------|---------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
|        |                      |                                       |                                              |                                     |                       |
| 1      | I <b>-</b> l         | Carangidae                            | _                                            | 33.1                                | 15.3                  |
| 1      | I <b>-</b> 2         | "                                     | 16.9                                         | 35.5                                | 18.9                  |
| 1      | I <b>-</b> 3         | 11                                    | 14.2                                         | 36.3                                | 20.2                  |
| 1      | II-1                 | 11                                    | <del>-</del> -                               | 33.1                                | 15.8                  |
| 1      | II <b>-</b> 2        | 11                                    | 308.3                                        | 35.7                                | 19.3                  |
| 1      | II <b>-</b> 3        | 11                                    | 29.4                                         | 36.3                                | 19.7                  |
| 1      | II-4                 | · · · · · · · · · · · · · · · · · · · | 22.4                                         | 33.5                                | 16.6                  |
| l      | II <b>-</b> 5        | 11                                    | 47.5                                         | 36.2                                | 20.6                  |
| 1      | II <b>-</b> 6        | tt .                                  | 20.6                                         | 36.2                                | 20.4                  |
| 1      | II-7                 | 11                                    | 27.1                                         | _                                   | _                     |
| 1      | III-1                | 11                                    | 28.1                                         | 32.6                                | 15.0                  |
| 1      | III-2                | "                                     | 6.2                                          | 36.2                                | 20.7                  |
| ī      | III-3                | 11                                    | 18.7                                         | 36.3                                | 20.5                  |
| ī      | IV-1                 | 11                                    | 10.1                                         | 32.6                                | 15.1                  |
| 1      | IV-2                 | 11                                    | 403.2                                        | 35.4                                | 19.9                  |
| ī      | IV-3                 | 11                                    | 403.2                                        | 36.2                                | 20.9                  |
| 2      | II-1                 | 11                                    | 14.2                                         | 29.7                                | 17.8                  |
| 2      | II <b>-</b> 2        | . 11                                  | 160.8                                        | 35.8                                | 20.5                  |
| 2      | II-3                 | 11                                    | 11.9                                         | 36 <b>.</b> 1                       | 19.8                  |
| 2      | II_4                 | 11                                    | 16.1                                         | 32.9                                | 18.3                  |
| 2      | II <b>-</b> 5        | 11                                    | 34.0                                         | 36.1                                |                       |
| 2      | II-6                 | 11                                    |                                              |                                     | 20.7                  |
| 2      | II-7                 |                                       | 15.6                                         | 36.1                                | 20.2                  |
| 3      | II-1                 | tt .                                  | 13.0                                         | 20.0                                | -<br>- 0 (            |
| ა<br>ა | II <b>-</b> 2        | **                                    | 0( )                                         | 30.2                                | 18.6                  |
| 3<br>3 | II-3                 | "                                     | 26.4                                         | 35.2                                | 19.9                  |
| 2      | II-4                 | 11                                    | 53.7                                         | 36.0                                | 20.3                  |
| 3<br>3 |                      | 11                                    | 162.6                                        | 34.7                                | 19.8                  |
| 3      | II <b>-</b> 5        | 11                                    | 175.8                                        | 35.7                                | 20.6                  |
| 3      | II <b>-</b> 6        | **                                    | 96.1                                         | 36.0                                | 20.6                  |
| 3      | II <b>-</b> 7        | *1                                    | 161.4                                        | -                                   | ~                     |

Appendix table 2. (Continued).

| Cruise      | Transect-     | Taxon Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity O/00 (mean) | Temperature °C (mean) |
|-------------|---------------|---------------------------------|----------------------------------------------|----------------------|-----------------------|
| 01 41.00    | 50001011      | ramily - genera & species       | т,000 шэ                                     | (mean)               | /mean)                |
| 4           | I-l           | Carangidae                      | 76.4                                         | 30.4                 | 27.4                  |
| 4           | I <b>-</b> 2  | "                               | 99.2                                         | 32.8                 | 24.4                  |
| 4           | I <b>-</b> 3  | 11                              | 151.3                                        | 35.6                 | 23.2                  |
| 4           | II-1          | 11                              | 36.6                                         |                      | 26.4                  |
| 4           | II <b>-</b> 2 | 11                              | 15.9                                         | 31.3                 |                       |
| 4           | II-3          | . #                             |                                              | <del>-</del>         | 23.9                  |
| 4           | II <u>-</u> 4 | 11                              | 181.8                                        | 35.9                 | 22.4                  |
| 4           | II <b>-</b> 5 | / <b>11</b>                     | 50.5                                         |                      |                       |
| 4           | II <b>-</b> 6 | **                              | 325.5                                        | 35.4                 | 24.4                  |
| 4           | II-7          | "                               | 84.1                                         | 35.6                 | 23.8                  |
| 4           |               | 11                              | 85.4                                         |                      |                       |
|             | III-1         |                                 | 47.5                                         | 32.6                 | 25.6                  |
| <u>)</u> 4  | III-2         | ***                             | 5.7                                          | 34.8                 | 23.3                  |
| <u>)</u>    | III-3         |                                 | 15.8                                         | 35.1                 | 22.6                  |
| <u>1</u>    | IV-1          | **                              | 39.4                                         | 33.7                 | 24.6                  |
| 4           | IV-2          | <b>!!</b>                       | 5.3                                          | 34.7                 | 24.2                  |
| 4           | IV-3          | "                               | 31.7                                         | 35.6                 | 22.8                  |
| 5           | II-1          |                                 | 124.8                                        | 34.2                 | 27.8                  |
| 5           | II-2          | 11                              | 50.6                                         | 35.7                 | 26.0                  |
| 5           | II-3          | ***                             | 12.3                                         | 36.0                 | 23.4                  |
| 5           | II <b>-</b> 4 | II .                            | 30.5                                         | 34.9                 | 27.2                  |
| 5           | II <b>-</b> 5 | 11                              | 82.6                                         | 35.9                 | 25.1                  |
| 5           | II <b>-</b> 6 | 11                              | 30.2                                         | 35.9                 | 24.4                  |
| 5<br>5<br>6 | II <b>-</b> 7 | . 11                            | 13.2                                         | 37• <del>3</del>     | 24.4                  |
| 6           | II-1          | 11                              | 863.4                                        | 37 <b>.</b> 4        | <del>-</del><br>٥٠    |
| 6           | II <b>-</b> 2 | tt .                            | 30.3                                         | 36.2                 | 25.6                  |
| 6           | II <b>-</b> 3 | tt                              | 52.4                                         |                      | 27.4                  |
| 6           | II-4          | 11                              |                                              | 36.3                 | 26.7                  |
| 6           | II-5          | 11                              | 60.1                                         | 36.6                 | 28.1                  |
| 6           | II-6          | 11                              | 4.6                                          | 35.5                 | 28.0                  |
| . 6         |               | "                               | 30.6                                         | 35.9                 | 26.9                  |
| U           | II <b>-</b> 7 |                                 | 36.6                                         | -                    | -                     |

Appendix table 2. (Continued).

|        |                   | Abundance                    |                      |               |                |  |  |
|--------|-------------------|------------------------------|----------------------|---------------|----------------|--|--|
|        | Transect-         | Taxon                        | No. per              | Salinity 0/00 | Temperature °C |  |  |
| Cruise | station           | Family - genera & species    | 1,000 m <sup>3</sup> | (mean)        | (mean)         |  |  |
| 7      | I <b>-</b> 1      | Carangidae                   | 544.9                | 33.5          | 28.5           |  |  |
| 7      | I <b>-</b> 2      | "                            | 43.8                 | 35.5          | 28.4           |  |  |
| 7      | I <b>-</b> 3      | 11                           | 8.5                  | 36.4          | 25.3           |  |  |
| 7      | II-1              | 11                           | 677.1                | 35.3          | 29.1           |  |  |
| 7      | II <b>-</b> 2     | **                           | -                    | 36.2          | 27.4           |  |  |
| 7      | II <b>-</b> 3     | 11                           | 3.0                  | 36.6          | 23.2           |  |  |
| 7      | II-4              | "                            | 23.9                 | 35.8          | 28.7           |  |  |
| 7      | II-5              | tt .                         | 5.5                  | 36.3          | 24.4           |  |  |
| 7      | II <b>-</b> 6     | 11                           | 29.5                 | 36.6          | 23.5           |  |  |
| 7      | II <del>-</del> 7 | 11                           | 15.7                 | _             |                |  |  |
| 7      | III-1             | 11                           | 365.7                | 36 <b>.</b> 2 | 29.2           |  |  |
| 7      | III <b>-</b> 2    | 11                           | 46.7                 | 36.3          | 25.2           |  |  |
| 7      | III-3             | 11                           | 16.2                 | 36.5          | 23.3           |  |  |
| 7      | IV-1              | 11                           |                      | 36.3          | 28.6           |  |  |
| 7      | IV-2              | tt · · ·                     | 15.0                 | 36.7          | 25.8           |  |  |
| 7      | IV-3              | 11                           | 64.0                 | 36.5          | 25.4           |  |  |
| 8      | II-1              | 11                           | -                    | 32.4          | 20.4           |  |  |
| 8      | II <b>-</b> 2     | •                            | _                    | 35.9          | 23.3           |  |  |
| 8      | II <b>-</b> 3     | 11                           | _                    | 36.3          | 21.1           |  |  |
| 8      | II <b>-</b> 4     | 11                           | _                    | 35.4          | 22.6           |  |  |
| 8      | II-5              | 11                           |                      | 36.3          | 23.3           |  |  |
| 8      | II <b>-</b> 6     | 11                           | _                    | 36.3          | 22.4           |  |  |
| 8      | II-7              | <u> </u>                     | 2.0                  | 36.2          | 18.9           |  |  |
| 1      | I-1               | Carangidae Trachurus lathami | 0                    | 33.1          | 15.3           |  |  |
| 1      | I <del>-</del> 2  | 11 22 2011411                | 16.9                 | 35.5          | 18.9           |  |  |
| ı      | I <b>-</b> 3      | 11                           | 14.2                 | 36.3          | 20.2           |  |  |
| ī      | II-1              | 11                           | 0                    | 33.1          | 15.8           |  |  |
| ī      | II <b>-</b> 2     | **                           | 308.3                | 35 • 7        | 19.3           |  |  |
| ī      | II-3              | 11                           | 29.4                 | 36.3          | 19.7           |  |  |
| ı<br>1 | II-4              | 11                           | -J•¬                 | 33.5          | 16.6           |  |  |
| 1      | II-5              | ***                          | 47 <b>.</b> 5        | 36 <b>.</b> 2 | 20.6           |  |  |

Appendix table 2. (Continued).

| Cruise | Transect-<br>station | Taxon Family - genera & species       | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity O/00 (mean) | Temperature °C (mean) |
|--------|----------------------|---------------------------------------|----------------------------------------------|----------------------|-----------------------|
| Cruise | Buation              | ramily - genera a species             | 7,000 m                                      | (mean)               | (meur)                |
| 1      | II <b>-</b> 6        | Carangidae Trachurus lathami          | 20.6                                         | 36.2                 | 20.4                  |
| 1      | II <b>-</b> 7        | 11                                    | 27.1                                         | _                    | _                     |
| 1      | III-l                | 11                                    | 0                                            | 32.6                 | 15.0                  |
| 1      | III-2                | 11                                    | 6.2                                          | 32.6                 | 20.7                  |
| ī      | III-3                | 11                                    | 18.7                                         | 36.3                 | 20.5                  |
| 1      | IV-1                 | 11                                    | 0                                            | 32.6                 | 15.1                  |
| 1      | IV-2                 | 11                                    | 241.8                                        | 35.4                 | 19.9                  |
| 1      | IV-3                 | 11                                    | 0                                            | 36.2                 | 20.9                  |
| 2      | II-1                 | 11                                    | 0                                            | 29.7                 | 17.8                  |
| 2      | II <b>-</b> 2        | It .                                  | 160.8                                        | 35.8                 | 20.5                  |
| 2      | II-3                 | 11                                    | 11.9                                         | 36.1                 | 19.8                  |
| 2      | II-4                 | 11                                    | 0                                            | 32.9                 | 18.3                  |
| 2      | TI-5                 | 11                                    | 34.0                                         | 36.1                 | 20.7                  |
| 2      | II <b>-</b> 6        | 11                                    | 15.6                                         | 36.1                 | 20.2                  |
| 2      | II <b>-</b> 7        | II .                                  | 13.0                                         | _                    | _                     |
| 3      | II-1                 | II .                                  | 0                                            | 30.2                 | 18.6                  |
| 3      | II <b>-</b> 2        | 11                                    | Ö                                            | 35.2                 | 19.9                  |
| 3      | II-3                 | <b>n</b>                              | 53.7                                         | 36.0                 | 20.3                  |
| 3      | II-4                 | **                                    | 0                                            | 34.7                 | 19.8                  |
| 3      | II-5                 | H .                                   | 65.5                                         | 35.7                 | 20.6                  |
| 3<br>3 | 11-6                 | II .                                  | 96.1                                         | 36.0                 | 20.6                  |
| 3      | II-7                 | Ħ                                     | 159.6                                        | _                    | _                     |
| 4      | I-1                  | · · · · · · · · · · · · · · · · · · · | 12.7                                         | 30.4                 | 27.4                  |
| 14     | I-2                  | n .                                   | 0                                            | 32.8                 | 24.4                  |
| 4      | I <b>-</b> 3         | 11                                    | 0                                            | 35.6                 | 23.2                  |
| 4      | II-1                 | 11                                    | 0                                            | 31.3                 | 26.4                  |
| 4      | II-2                 | 11                                    | 0                                            |                      | 23.9                  |
| 14     | II-3                 | II .                                  | 0                                            | 35.9                 | 22.4                  |
| 4      | II-4                 | 11                                    | Ö                                            |                      |                       |
| 4      | II-5                 | "                                     | 0                                            | 35.4                 | 24.4                  |

Appendix table 2. (Continued).

| Cruise | Transect-<br>station                  | Taxon<br>Family - genera & species    | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|--------|---------------------------------------|---------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| 14     | 11-6                                  | Carangidae Trachurus lathami          | 0                                            | 35.6                                | 23.8                  |
| 14     | II <b>-</b> 7                         | 11                                    | Ō                                            | _                                   |                       |
| 4      | III-1                                 | v v                                   | . 0                                          | 32.6                                | 25.6                  |
| 14     | III-2                                 | 11                                    | 0.                                           | 34.8                                | 23.3                  |
| 14     | III-3                                 | 11                                    | 0                                            | 35.1                                | 22.6                  |
| 14     | IV-1                                  | 11                                    | 0                                            | 33.7                                | 24.6                  |
| 4      | IV-2                                  | 11                                    | 0                                            | 34.7                                | 24.2                  |
| Σ,     | IV-3                                  | "                                     | 0                                            | 35.6                                | 22.8                  |
| ì      | I-1                                   | Clupeidae                             | 50.7                                         | 33.1                                | 15.3                  |
| i      | I <b>-</b> 2                          | ii.                                   | 720.4                                        | 35.5                                | 18.9                  |
| ì      | I <b>-</b> 3                          | 11                                    | 120.4                                        | 36.3                                | 20.2                  |
| ĺ      | II <b>-</b> 1                         | 11                                    |                                              | 33.1                                | 15.8                  |
| i      | II <b>-</b> 2                         | 11                                    | 673.1                                        | 35.7                                | 19.3                  |
| 1      | II-3                                  | ·<br>·                                | 013.1                                        | 36.3                                | 19.7                  |
| 1      | II-4                                  | 11                                    | <u> </u>                                     | 33.5                                | 16.6                  |
| 1      | II <b>-</b> 5                         | 11                                    | 444.                                         | 36.2                                | 20.6                  |
| 1      | II <b>-</b> 6                         | "                                     | ., <del>-</del>                              | 36.2                                | 20.4                  |
| 1      | II-7                                  |                                       | -                                            | 30.2                                |                       |
|        | III-1                                 | 11                                    | 32.6                                         | 32 <b>.</b> 6                       | -<br>35 0             |
| 1      | III <b>-</b> 2                        | <u>,11</u>                            | 32.0                                         |                                     | 15.0                  |
| 1      | · · · · · · · · · · · · · · · · · · · |                                       | -                                            | 36.2                                | 20.7                  |
| 1      | III-3                                 | "                                     | 25.0                                         | 36.3                                | 20.5                  |
| 1      | IV-1                                  | "                                     | 35.0                                         | 32.6                                | 15.1                  |
| 1      | IV-2                                  |                                       | 228.5                                        | 35.4                                | 19.9                  |
| 1      | IV-3                                  | · · · · · · · · · · · · · · · · · · · | 2.9                                          | 36.2                                | 20.9                  |
| 2      | II-1                                  |                                       | 539.7                                        | 29.7                                | 17.8                  |
| 2      | ĬI <b>-</b> 2                         | **                                    | 394.5                                        | 35.8                                | 20.5                  |
| 2      | II-3                                  | 11                                    | 461.4                                        | 36.1                                | 19.8                  |
| 2      | II-4                                  | 11                                    | 66.8                                         | 32.9                                | 18.3                  |
| 2      | II-5                                  | 11                                    | 294.5                                        | 36.1                                | 20.7                  |
| 2      | II <b>-</b> 6                         |                                       | 174.0                                        | 36.1                                | 20.2                  |
| 2      | II <b>-</b> 7                         | 11                                    | 376.8                                        | _                                   | _                     |

Appendix table 2. (Continued).

| Cruise         | Transect-<br>station | Taxon<br>Family - genera & species    | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|----------------|----------------------|---------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| 3              | II-1                 | Clupeidae                             | 43.2                                         | 30.2                                | 18.6                  |
| 3              | II <b>-</b> 2        | īı                                    | 1,600.6                                      | 35.2                                | 19.9                  |
| 3              | II-3                 | <b>11</b>                             | 288.4                                        | 36.0                                | 20.3                  |
| 3              | II-4                 | · · · · · · · · · · · · · · · · · · · | 508.5                                        | 34.7                                | 19.8                  |
|                | II-5                 | 11                                    | 280.1                                        | 35.7                                | 20.6                  |
| 3<br>3         | 11–6                 | 11                                    | 600.0                                        | 36.0                                | 20.6                  |
| 3              | II-7                 | 11                                    | 123.5                                        | -                                   | -                     |
| ),<br>),       | I-1                  |                                       | 31.3                                         | 30.4                                | 27.4                  |
| ),             | I-2                  | 11                                    | JE • J                                       | 32.8                                | 24.4                  |
| 4              | I-3                  | 11                                    | _                                            | 35.6                                | 23.2                  |
| j.             | II-1                 | 11                                    | 54 <b>.</b> 5                                | 31.3                                | 26.4                  |
| 4              | · II-1               | 11                                    | 6.3                                          | J. • J                              | 23.9                  |
| - 4            | II-2<br>II-3         | 11                                    | 0.5                                          | 35.9                                | 22.4                  |
| 4              | II-4                 | 11                                    | 81.5                                         |                                     |                       |
|                |                      | ti                                    | 4.8                                          | _<br>35.4                           | 24.4                  |
| <b>4</b>       | II-5                 | 11                                    | 4.0                                          | 35.6                                | 23.8                  |
| 4              | 11-6                 | 11                                    | <b>-</b>                                     | 37.0                                | 23.0                  |
| <u>ц</u>       | II-7                 |                                       | 63.4                                         | 20 6                                | 25 6                  |
| <u>ц</u><br>1. | III-1                | ***                                   | 03.4                                         | 32.6                                | 25.6                  |
| 4              | III-2                | . 11                                  | _                                            | 34.8                                | 23.3<br>22.6          |
| 4              | III-3                |                                       |                                              | 35.1                                |                       |
| 4              | IV-1                 | "                                     | 13.7                                         | 33.7                                | 24.6                  |
| . 4            | IV-2                 | ''<br>''                              | -                                            | 34.7                                | 24.2                  |
| 4              | IV-3                 | •                                     | 3.1                                          | 35.6                                | 22.8                  |
| 5<br>5<br>5    | II <b>-</b> 1        | ··                                    | 18.7                                         | 34.2                                | 27.8                  |
| 5              | II <b>-</b> 2        | H                                     | 85.2                                         | 35.7                                | 26.0                  |
| 5              | II <b>-</b> 3        | •                                     | -                                            | 36.0                                | 23.4                  |
| 5              | II <b>-</b> 4        | 11                                    | •                                            | 34.9                                | 27.2                  |
| 5              | II <b>-</b> 5        | <b>.</b>                              | .* <b>-</b>                                  | 35.9                                | 25.1                  |
| 5              | II <b>-</b> 6        | ***                                   | -                                            | 35.9                                | 24.4                  |
| . 5            | II-7                 | **                                    | -                                            | -                                   | -                     |

Appendix table 2. (Continued).

| Cruise | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|--------|----------------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
|        | TT 7                 | Clumpidos                          | 86.3                                         | 37.4                                | 25.6                  |
| 6      | II-l                 | Clupeidae                          | 126.7                                        | 36.2                                | 27.4                  |
| 6      | II <b>-</b> 2        | 11                                 | 248.6                                        | 36.3                                | 26.7                  |
| 6      | II-3                 | 11                                 | 120.5                                        | 36.6                                | 28.1                  |
| 6      | II-4                 | "                                  | 11.2                                         | 35.5                                | 28.0                  |
| 6      | II-5                 |                                    |                                              |                                     | 26.9                  |
| 6      | II <b>-</b> 6        | ***                                | 29.0                                         | 35.9                                |                       |
| 6      | II <b>-</b> 7        |                                    | 141.0                                        | -                                   | -<br>28.5             |
| 7      | I-1                  |                                    | 102.7                                        | 33.5                                |                       |
| 7      | I <b>-</b> 2         | <b>!!</b>                          | -                                            | 35.5                                | 28.4                  |
| 7      | I <b>-</b> 3         | 11                                 | -                                            | 36.4                                | 25.3                  |
| 7      | . II-1               | 11                                 | 177.0                                        | 35.3                                | 29.1                  |
| 7      | II <b>-</b> 2        | 11                                 | 9.7                                          | 36.2                                | 27.4                  |
| 7      | II <b>-</b> 3        | 11                                 | 26.5                                         | 36.6                                | 23.2                  |
| 7      | II-4                 | 11                                 | 21.8                                         | 35.8                                | 28.7                  |
| 7      | II <del>-</del> 5    | tt .                               | 3.3                                          | 36.3                                | 24.4                  |
| 7      | II <b>-</b> 6        | tt .                               | 6.4                                          | 36.6                                | 23.5                  |
| 'n     | II <b>-</b> 7        | II .                               | 14.3                                         | _                                   | -                     |
| 7      | III-i                | 11                                 | 166.3                                        | 36.2                                | 29.2                  |
| 7      | III-2                | **                                 | 34.8                                         | 36.3                                | 25.2                  |
| 7      | III-3                | 11                                 | 4.3                                          | 36.5                                | 23.3                  |
| 7      | IV-1                 | 11                                 | 44.9                                         | 36.3                                | 28.6                  |
| 7      | IV-2                 | 11                                 | 216.8                                        | 36.7                                | 25.8                  |
| 7      | IV-3                 | i n                                | 4.7                                          | 36.5                                | 25.4                  |
| 8      | II-1                 | tt .                               | 522.2                                        | 32.4                                | 20.4                  |
| 8      | II <b>-</b> 2        | 77                                 | 7.8                                          | 35.9                                | 23.3                  |
| 8      | II-3                 | 11                                 | -                                            | 36.3                                | 21.1                  |
| 8      | II-4                 | 11                                 | 32.0                                         | 35.4                                | 22.6                  |
| o<br>8 |                      | 11                                 | J • U                                        | 36.3                                | 23.3                  |
|        | II-5                 | **                                 | <u>-</u>                                     | 36.3                                | 22.4                  |
| 8      | II <b>-</b> 6        | 11                                 | -                                            | 36 <b>.</b> 2                       | 18.9                  |
| 8      | II-7                 | ••                                 | -                                            | 30.2                                | 10.7                  |

Appendix table 2. (Continued).

|        |               | Abundance                             |                      |               |                |  |  |  |
|--------|---------------|---------------------------------------|----------------------|---------------|----------------|--|--|--|
|        | Transect-     | Taxon                                 | No. per              | Salinity O/00 | Temperature °C |  |  |  |
| Cruise | station       | Family - genera & species             | 1,000 m <sup>3</sup> | (mean)        | (mean)         |  |  |  |
|        |               |                                       |                      |               |                |  |  |  |
| 9      | II-l          | Clupeidae                             | 581.9                | 33.5          | 14.9           |  |  |  |
| 9      | II <b>-</b> 2 | 11                                    | 169.6                | 35.7          | 19.0           |  |  |  |
| 9      | II <b>-</b> 3 | 11                                    | 3.0                  | 36.3          | 20.3           |  |  |  |
| 9      | II-14         | 11                                    | 497.3                | 36.2          | 19.5           |  |  |  |
| 9      | II-5          | 11                                    | 14.6                 | 36.3          | 21.1           |  |  |  |
| 9      | 11-6          |                                       | 9.2                  | 36.3          | 21.0           |  |  |  |
| 9      | II-7          | tt .                                  | 5.4                  | 36.3          | 18.6           |  |  |  |
| Ţ      | 1−1           | Clupeidae Etrumeus teres              | Ō                    | 33.1          | 15.3           |  |  |  |
| 1      | I <b>-</b> 2  | <del>-    -  </del>                   | 171.5                | 35.5          | 18.9           |  |  |  |
| ī      | I-3           | TT .                                  | 0                    | 36.3          | 20.2           |  |  |  |
| 1      | II-1          | 11                                    | 0                    | 33.1          | 15.8           |  |  |  |
| 1      | II-2          | ff .                                  | 108.7                | 35.7          | 19.3           |  |  |  |
| ī      | II-3          | 11                                    | 0                    | 36.3          | 19.7           |  |  |  |
| 1      | II-4          | tt .                                  | 86.4                 | 33.5          | 16.6           |  |  |  |
| 1      | II-5          | 11                                    | 0                    | 36.2          | 20.6           |  |  |  |
| ī      | II <b>-</b> 6 | tt                                    | 0                    | 36.2          | 20.4           |  |  |  |
| ī      | II <b>-</b> 7 | 11                                    | 0                    | -             | <del>-</del>   |  |  |  |
| ī      | III-i         | · · · · · · · · · · · · · · · · · · · | 14.0                 | 32.6          | 15.0           |  |  |  |
| ī      | III-2         | 11                                    | 0                    | 36.2          | 20.7           |  |  |  |
| l      | III-3         | 11                                    | 0                    | 36.3          | 20.5           |  |  |  |
| 1      | IV-1          | 11                                    | 14.3                 | 32.6          | 15.1           |  |  |  |
| 1      | IV-2          | 11                                    | 107.6                | 35.4          | 19.9           |  |  |  |
| ī      | IV-3          | 11                                    | 2.9                  | 36.2          | 20.9           |  |  |  |
| 2      | II-1          | 11                                    | 0                    | 29.7          | 17.8           |  |  |  |
| 2      | II <b>-</b> 2 | 11                                    | 88.0                 | 35.8          | 20.5           |  |  |  |
| 2      | II-3          | 11                                    | 20.8                 | 36.1          | 19.8           |  |  |  |
| 2      | II-4          | 11                                    | 8.1                  | 32.9          | 18.3           |  |  |  |
| 2      | II-5          | 11                                    | 35.8                 | 36.1          | 20.7           |  |  |  |
| 2      | 11-6          | 11                                    | 54.3                 | 36.1          | 20.2           |  |  |  |
| 2      | II-7          | 11                                    | 14.0                 |               |                |  |  |  |
| _      | ,             |                                       |                      |               |                |  |  |  |

Appendix table 2. (Continued).

| Cruise | Transect-<br>station | Taxon Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|--------|----------------------|---------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
|        |                      |                                 |                                              |                                     | - 0 (                 |
| 3      | II-1                 | Clupeidae Etrumeus teres        |                                              | 30.2                                | 18.6                  |
| 3      | II-2                 | **                              | 427.9                                        | 35.2                                | 19.9                  |
| 3      | II <b>-</b> 3        |                                 | 210.1                                        | 36.0                                | 20.3                  |
| 3      | II <b>-</b> 4        | 11                              | 10.2                                         | 34.7                                | 19.8                  |
| 3      | II <b>-</b> 5        | "                               | 68.8                                         | 35.7                                | 20.6                  |
| 3      | II <b>-</b> 6        | 11                              | -                                            | 36.0                                | 20.6                  |
| 3      | II <b>-</b> 7        |                                 | 20.7                                         | _                                   | -                     |
| 9      | II-l                 | 11                              | 0                                            | 33.5                                | 14.9                  |
| 9      | II <b>-</b> 2        | 11                              | 7.8                                          | 35.7                                | 19.0                  |
| 9      | II <b>-</b> 3        | Ħ                               | Ö                                            | 36.3                                | 20.3                  |
| 9      | II-4                 | 11                              | 0                                            | 36.2                                | 19.5                  |
| 9      | II-5                 | 11                              | Ō                                            | 36.3                                | 21.1                  |
| 9      | II <b>-</b> 6        | 11                              | Ō                                            | 36.3                                | 21.0                  |
| 9      | II <b>-</b> 7        | 11                              | <u>0</u> ·                                   | 36.3                                | 18.6                  |
| í      | I-1                  | Sciaenidae                      | 37.2                                         | 33.1                                | 15.3                  |
| ī      | I <b>-</b> 2         | 11                              | 17.4                                         | 35.5                                | 18.9                  |
| ĺ      | I <b>-</b> 3         | "                               | <u> </u>                                     | 36.3                                | 20.2                  |
| ì      | II-1                 | · n                             | 21.8                                         | 33.1                                | 15.8                  |
| ì      | II-2                 | n                               | 21.0                                         | 35.7                                | 19.3                  |
| l      | II-3                 | 11                              | -                                            | 36.3                                | 19.7                  |
| 1      | II-4                 | 11                              | 56 <b>.</b> 0                                | 33.5                                | 16.6                  |
| ì      | II <b>-</b> 5        | 11                              | 90.0                                         | 36.2                                |                       |
| 1      | II <b>-</b> 6        | . 11                            | -                                            |                                     | 20.6                  |
|        |                      | 11                              | _                                            | 36.2                                | 20.4                  |
| 1      | II-7                 |                                 | -                                            | -                                   | -                     |
| 1      | III-1                |                                 | 9.6                                          | 32.6                                | 15.0                  |
| 1      | III-2                | **                              | ~                                            | 36.2                                | 20.7                  |
| 1      | III-3                |                                 | -                                            | 36.3                                | 20.5                  |
| 1      | IV-1                 | <b>11</b>                       | _                                            | 32.6                                | 15.1                  |
| 1      | IV-2                 | <b>!1</b>                       | 57.5                                         | 35.4                                | 19.9                  |
| 1      | IV-3                 | 11                              | _                                            | 36.2                                | 20.9                  |

Appendix table 2. (Continued).

| Cruise                | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|-----------------------|----------------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
|                       | TT 7                 | Sciaenidae                         | 124.1                                        | 29.7                                | 17.8                  |
| 2                     | II-1                 | beraenidae<br>#                    | 17.9                                         | 35.8                                | 20.5                  |
| 2                     | II-2                 | 11                                 | , ±1•2                                       | 36.1                                | 19.8                  |
| 2                     | II-3                 | 11                                 | 64.8                                         | 32.9                                | 18.3                  |
| 2                     | II-4                 | 11                                 | -                                            | 36.1                                | 20.7                  |
| 2                     | II <b>-</b> 5        | 11                                 |                                              | 36.1                                | 20.2                  |
| 2                     | II <b>-</b> 6        | 11                                 | _                                            |                                     | _                     |
| 2<br>3<br>3<br>3<br>3 | TT_7                 |                                    | _<br>278 <b>.</b> 5                          | 30.2                                | 18.6                  |
| 3                     | II-l                 |                                    | 68.7                                         | 35.2                                | 19.9                  |
| 3                     | II <b>-</b> 2        | 11                                 | 00.1                                         | 36 <b>.</b> 0                       | 20.3                  |
| 3                     | II <b>-</b> 3        | 11                                 | 27 -                                         | 34.7                                | 19.8                  |
| .3                    | . II-4               | 11                                 | 31.5                                         |                                     | 20.6                  |
| 3                     | II-5                 |                                    | -                                            | 35.7                                | 20.6                  |
| 3                     | II <b>-</b> 6        | 11                                 | -                                            | 36.0                                |                       |
| 3                     | II <b>-</b> 7        | 11                                 | <u>-</u>                                     | -                                   | 07.).                 |
| 4                     | I <b>-</b> 1         | •                                  | 44.0                                         | 30.4                                | 27.4                  |
| 4                     | I <b>-</b> 2         | 11                                 | -                                            | 32.8                                | 24.4                  |
| 4                     | I <b>-</b> 3         |                                    | , <del>-</del>                               | 35.6                                | 23.2                  |
| 4                     | II-l                 |                                    | 24.4                                         | 31.3                                | 26.4                  |
| 14                    | II <b>-</b> 2        | 11                                 | -                                            | -                                   | 23.9                  |
| 4                     | II-3                 | 11                                 | -                                            | 35.9                                | 22.4                  |
| 4                     | II-4                 | 11                                 | 31.0                                         | <b>-</b> _                          | <del>-</del>          |
| 4                     | II <b>-</b> 5        | "                                  | -                                            | 35.4                                | 24.4                  |
| 14                    | 11-6                 | 11                                 | -                                            | 35.6                                | 23.8                  |
| 4                     | II <b>-</b> 7        | 11                                 | _                                            | -                                   |                       |
| 14                    | III-i                | 11                                 | 21.0                                         | 32.6                                | 25.6                  |
| 4                     | III-2                | 11                                 | _                                            | 34.8                                | 23.3                  |
| 14                    | III-3                | 11                                 |                                              | 35.1                                | 22.6                  |
| 4                     | IV-1                 | 11                                 | 70.3                                         | 33.7                                | 24.6                  |
| 4                     | IV-2                 | "                                  |                                              | 34.7                                | 24.2                  |
| 4                     | IV-3                 | **                                 | 3.0                                          | 35.6                                | 22.8                  |

Appendix table 2. (Continued).

| Cruise        | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|---------------|----------------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| 5             | II-l                 | Sciaenidae                         | 293.4                                        | 34.2                                | 27.8                  |
| 5             | II-2                 | ii                                 | 11.7                                         | 35.7                                | 26.0                  |
| 2             | II-3                 | 11                                 |                                              | 36.0                                | 23.4                  |
| 5 5 5 5 5 5 6 | II-4                 | <b>11</b>                          | 23.7                                         | 34.9                                | 27.2                  |
|               | II <b>-</b> 5        | 11                                 |                                              | 35.9                                | 25.1                  |
| 2             | II <b>-</b> 6        | 11                                 | _                                            | 35.9                                | 24.4                  |
| 2             |                      | 11                                 |                                              | J/• /                               | _                     |
| 2             | II-7                 |                                    | 266.3                                        | 37.4                                | 25.6                  |
|               | II-l                 | 11                                 | 25.7                                         | 36.2                                | 27.4                  |
| 6             | II <b>-</b> 2        | "                                  | ۷٠١                                          | 36.3                                | 26.7                  |
| 6             | II-3<br>II-4         | 11                                 | _                                            | 36.6                                | 28.1                  |
| 6             |                      | 11                                 | -                                            | 35.5                                | 28.0                  |
| 6             | II <b>-</b> 5        | 11                                 | 6.6                                          | 35.9                                | 26.9                  |
| 6             | II-6                 | 11                                 | 2.1                                          | 3).9                                | 20.9                  |
| 6             | II <b>-</b> 7        | "                                  | 96.0                                         |                                     | 28 <b>.</b> 5         |
| 7             | I-1                  | 11                                 | 96.0                                         | 33.5                                | 28.4                  |
| 7             | I <b>-</b> 2         | 11                                 | -                                            | 35.5                                |                       |
| 7             | I <b>-</b> 3         |                                    |                                              | 36.4                                | 25.3                  |
| 7             | II-l                 |                                    | 193.4                                        | 35.3                                | 29.1                  |
| 7             | II-2                 |                                    | _                                            | 36.2                                | 27.4                  |
| 7             | II <b>-</b> 3        |                                    | 3.0                                          | 36.6                                | 23.2                  |
| 7             | II-14                | 11                                 | 10.9                                         | 35.8                                | 28.7                  |
| 7             | II <b>-</b> 5        | 11                                 | <del>-</del> .                               | 36.3                                | 24.4                  |
| 7             | 11-6                 | ti e                               | 6.4                                          | 36.6                                | 23.5                  |
| 7             | II <b>-</b> 7        | 11                                 | 6.3                                          | . <del>-</del>                      | -                     |
| 7             | III-1                | 11                                 | 698.8                                        | 36.2                                | 29.2                  |
| 7             | III-2                | 11                                 | -                                            | 36.3                                | 25.2                  |
| 7             | III-3                | 11                                 | -                                            | 36.5                                | 23.3                  |
| 7             | IV-1                 | 11                                 | -                                            | 36.3                                | 28.6                  |
| 7             | IV-2                 | 11                                 | _                                            | 36.7                                | 25.8                  |
| 7             | IV-3                 | 11                                 | _                                            | 36.5                                | 25.4                  |

Appendix table 2. (Continued).

| Cruise           | Transect-<br>station | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |
|------------------|----------------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| _                |                      | <b>a</b>                           | 555.6                                        | 32.4                                | 20.4                  |
| 8                | II-1                 | Sciaenidae<br>"                    |                                              | 35.9                                | 23.3                  |
| 8                | II <b>-</b> 2        |                                    | 1,274.5                                      | 36.3                                | 21.1                  |
| 8                | II <b>-</b> 3        | "<br>"                             | 21.5                                         | 35.4                                | 22.6                  |
| 8                | II-14                | 11                                 | 3,075.8                                      | 36.3                                | 23.3                  |
| 8                | II <b>-</b> 5        | "                                  | 73.0                                         |                                     | 22.4                  |
| 8                | 11-6                 |                                    | 11.0                                         | 36.3                                | 18.9                  |
| 8                | II-7                 | 11                                 | 17.7                                         | 36.2                                | 14.9                  |
| 9                | II-l                 | <b>!!</b>                          | 53.4                                         | 33.5                                |                       |
| 9                | II <del>-</del> 2    | 11                                 | 1,854.8                                      | 35.7                                | 19.0                  |
| 9                | II-3                 | 11                                 | 48.6                                         | 36.3                                | 20.3                  |
| 9                | · II-4               | 11                                 | 441.1                                        | 36.2                                | 19.5                  |
|                  | II <b>-</b> 5        | 11                                 | 19.5                                         | 36.3                                | 21.1                  |
| 9                | 11-6                 | 11                                 | 16.1                                         | 36.3                                | 21.0                  |
| 9<br>9<br>9<br>6 | II <b>-</b> 7        | 11                                 | 103.0                                        | 36.3                                | 18.6                  |
| 6                | II-1                 | Sciaenidae Micropogon undulatus    | 0                                            | 37.4                                | 25.6                  |
| 6                | II <b>-</b> 2        | 11                                 | 0                                            | 36.2                                | 27.4                  |
| 6                | II <b>-</b> 3        | 11                                 | 0                                            | 36.3                                | 26.7                  |
| 6                | II-4                 | " "                                | 0                                            | 36.6                                | 28.1                  |
| 6                | II-5                 | 11                                 | 0                                            | 35.5                                | 28.0                  |
| 6                | II <b>-</b> 6        | 11                                 | 0                                            | 35.9                                | 26.9                  |
| 6                | II <b>-</b> 7        | 11                                 | 2.1                                          | -                                   | <del>-</del> .        |
| 8                | II-1                 | 11                                 | 541.8                                        | 32.4                                | 20.4                  |
| 8                | II-2                 |                                    | 66.7                                         | 35.9                                | 23.3                  |
| 8                | II-3                 | . 11                               | 10.0                                         | 36.3                                | 21.1                  |
| 8                | II-4                 | 11                                 | 645.5                                        | 35.4                                | 22.6                  |
| 8                | II <b>-</b> 5        | 11                                 | 12.0                                         | 36.3                                | 23.3                  |
| 8                | II <b>-</b> 6        | 11                                 | 7.5                                          | 36.3                                | 22.4                  |
| 8                | II-7                 | 11                                 | 7.4                                          | 36.2                                | 18.9                  |
|                  | II-1                 | 11                                 | Ö                                            | 33.5                                | 14.9                  |
| . 9<br>9         | II <del>-</del> 2    | 11                                 | 620.8                                        | 35.7                                | 19.0                  |
| 9                | II-3                 | 11                                 | 5.9                                          | 36.3                                | 20.3                  |

Appendix table 2. (Continued).

| Transect-<br>Cruise station |                                      |            |          | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |  |
|-----------------------------|--------------------------------------|------------|----------|-------------------------------------|-----------------------|--|
| 9                           | II-4 Sciaenidae Micropogon undulatus |            | 4.9      | 36.3                                | 21.1                  |  |
| 9                           | II <b>-</b> 6                        | 11         | 0        | 36.3                                | 21.0                  |  |
| 9                           | II <b>-</b> 7                        | 11         | 12.5     | 36.3                                | 18.6                  |  |
| í                           | I-1                                  | Scombridae |          | 33.1                                | 15.3                  |  |
| ī                           | I <b>-</b> 2                         | 11         | _        | 35.5                                | 18.9                  |  |
| ı                           | I <b>-</b> 3                         | 11         | _        | 36.3                                | 20.2                  |  |
| ī                           | II-1                                 |            | -        | 33.1                                | 15.8                  |  |
| ī                           | II <b>-</b> 2                        | tt         | _        | 35.7                                | 19.3                  |  |
| 1                           | II <b>-</b> 3                        | tt         | _        | 36.3                                | 19.7                  |  |
| 1                           | II-4                                 | 11         | _        | 33.5                                | 16.6                  |  |
| 1                           | . II <b>-</b> 5                      | 11         | 50.7     | 36.2                                | 20.6                  |  |
| 1                           | II <b>-</b> 6                        | 11         | <u> </u> | 36.2                                | 20.4                  |  |
| 1                           | II <b>-</b> 7                        | 11         | _        | -                                   | -                     |  |
| 1                           | III-1                                | 11         | <u></u>  | 32.6                                | 15.0                  |  |
| 1                           | III <b>-</b> 2                       | 11         | _        | 36.2                                | 20.7                  |  |
| 1                           | III-3                                | **         | _        | 36.3                                | 20.5                  |  |
| 1                           | IV-l                                 | 11         | -        | 32.6                                | 15.1                  |  |
| 1                           | IV-2                                 | · n        | 10.8     | 35.4                                | 19.9                  |  |
| 1                           | IV-3                                 | 11         | _        | 36.2                                | 20.9                  |  |
| 2                           | II-l                                 | "          | _        | 29.7                                | 17.8                  |  |
| 2                           | II <b>-</b> 2                        | 11         | 6.1      | 35.8                                | 20.5                  |  |
| 2                           | II-3                                 | "          | _        | 36.1                                | 19.8                  |  |
| 2                           | II-4                                 | . "        | _        | 32.9                                | 18.3                  |  |
| 2                           | II <b>~</b> 5                        | "          | _        | 36.1                                | 20.7                  |  |
| 2                           | 11-6                                 | 11         | _        | 36.1                                | 20.2                  |  |
| 2                           | II-7                                 | "          | -        | -                                   | -                     |  |
| 3                           | II-l                                 | "          | _        | 30.2                                | 18.6                  |  |
| 3                           | II <b>-</b> 2                        | "          | _        | 35.2                                | 19.9                  |  |
| 3                           | II <b>-</b> 3                        | "          | _        | 36.0                                | 20.3                  |  |
| 3                           | II-4                                 | "          | _        | 34.7                                | 19.8                  |  |

Appendix table 2. (Continued).

| Cruise           | Transect-<br>station | Taxon Family - genera & species         | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity O/00 (mean) | Temperature °C (mean) |
|------------------|----------------------|-----------------------------------------|----------------------------------------------|----------------------|-----------------------|
| OI WIBC          | Bullion              | ramily - genera w species               | 7,000 m-                                     | (mean)               | \mathred means        |
| 3                | II <b>-</b> 5        | Scombridae                              | 9.6                                          | 35.7                 | 20.6                  |
| 3                | II <b>-</b> 6        | 11                                      |                                              | 36.0                 | 20.6                  |
| 3                | II-7                 | 11                                      | 18.0                                         | _                    |                       |
| 4                | I-1                  | 11                                      | 131.3                                        | 30.4                 | 27.4                  |
| 4                | I <b>-</b> 2         | 11                                      | 116.8                                        | 32.8                 | 24.4                  |
| 14               | I-3                  | 11                                      | 50.4                                         | 35.6                 | 23.2                  |
| 4                | II-1                 | 11 .                                    | 85.4                                         | 31.3                 | 26.4                  |
| بُل              | II-2                 | 11                                      | 60.8                                         | 21.2                 | 23.9                  |
| <u>)</u>         | II <b>-</b> 3        | 11                                      | 127.0                                        | -<br>35.9            | 23.4                  |
| ) <sub>4</sub>   | II-4                 | 11                                      | 61.0                                         | 37.9                 |                       |
| 14               | · II-5               | 11                                      | 194.8                                        | <u>-</u><br>35.4     | 24.4<br>-             |
| 4                | II <b>-</b> 6        | 11                                      |                                              |                      |                       |
| 4                | II-7                 | 11                                      | 137.2                                        | 35.6                 | 23.8                  |
| 4                | III-l                | **                                      | 62.9                                         | 20_(                 | -<br>05 (             |
| 4                | III-2                | 11                                      | -                                            | 32.6                 | 25.6                  |
| 4                | III-2<br>III:-3      | 11                                      | 20.4                                         | 34.8                 | 23.3                  |
| 4                | IV-1                 | 11                                      | 16.0                                         | 35.1                 | 22.6                  |
| 4                | IV-1<br>IV-2         | 11                                      | 13.7                                         | 33.7                 | 24.6                  |
| 4                | IV-2<br>IV-3         | "                                       | 32.1                                         | 34.7                 | 24.2                  |
|                  |                      | "                                       | 99.7                                         | 35.6                 | 22.8                  |
| 5                | II-1                 |                                         | 31.2                                         | 34.2                 | 27.8                  |
| 5                | II-2                 | "                                       | 187.4                                        | 35.7                 | 26.0                  |
| 5                | II-3                 | · 11                                    | 22.3                                         | 36.0                 | 23.4                  |
| 5                | II-4                 |                                         | 68.4                                         | 34.9                 | 27.2                  |
| 5                | II-5                 | ***                                     | 46.3                                         | 35.9                 | 25.1                  |
| 2                | 11-6                 | # · · · · · · · · · · · · · · · · · · · | 37.9                                         | 35.9                 | 24.4                  |
| 5<br>5<br>5<br>6 | II <b>-</b> 7        | ***                                     | 13.4                                         | -                    | -                     |
|                  | II-l                 | ***                                     | 47.7                                         | 37.4                 | 25.6                  |
| 6                | II <b>-</b> 2        | 11                                      | 29.9                                         | 36.2                 | 27.4                  |
| 6                | II-3                 | 11                                      | 152.0                                        | 36.3                 | 26.7                  |
| 6                | II-4                 | **                                      | 76.5                                         | 36.6                 | 28.1                  |

Appendix table 2. (Continued).

|        | ······································ |                                       | Abundance            | · · · · · · · · · · · · · · · · · · · |                |
|--------|----------------------------------------|---------------------------------------|----------------------|---------------------------------------|----------------|
|        | Transect-                              | Taxon                                 | No. per              | Salinity 0/00                         | Temperature °C |
| Cruise | station                                | Family - genera & species             | 1,000 m <sup>3</sup> | (mean)                                | (mean)         |
| 6      | II-5                                   | Scombridae                            | 29.9                 | 35.5                                  | 28.0           |
| 6      | II <b>-</b> 6                          | 11                                    | 53.8                 | 35.9                                  | 26.9           |
| 6      | II-7                                   | 11                                    | 172.7                | <b>-</b>                              | -              |
| 7      | I-1                                    | 11                                    | 81.8                 | 33.5                                  | 28.5           |
| 7      | I <b>-</b> 2                           | II .                                  | 98.6                 | 35.5                                  | 28.4           |
| 7      | I-3                                    | ii .                                  | 35.0                 | 36.4                                  | 25.3           |
| 7      | II-l                                   | II .                                  | 10.3                 | 35.3                                  | 29.1           |
| 7      | II <b>-</b> 2                          | n .                                   | 63.5                 | 36.2                                  | 27.4           |
| 7      | II-3                                   | ff .                                  | 61.8                 | 36.6                                  | 23.2           |
| 7      | II-4                                   | ii .                                  | 39.5                 | 35.8                                  | 28.7           |
| 7      | II <del>-</del> 5                      | 11                                    | 85.6                 | 36.3                                  | 24.4           |
| 7      | II <b>-</b> 6                          | 11                                    | 110.8                | 36.6                                  | 23.5           |
| 7      | II <b>-</b> 7                          | tt .                                  | 97.8                 | _                                     | _              |
| 7      | III-1                                  | 11                                    | 59.2                 | 36.2                                  | 29.2           |
| 7      | III-2                                  | tt.                                   | 148.8                | 36.3                                  | 25.2           |
| 7      | III-3                                  | 11                                    | 60.3                 | 36.5                                  | 23.3           |
| 7      | IV-1                                   | 11                                    | 44.9                 | 36.3                                  | 28.6           |
| 7      | IV-2                                   | · · · · · · · · · · · · · · · · · · · | 58.8                 | 36.7                                  | 25.8           |
| 7      | IV-3                                   | 11                                    | 60.1                 | 36.5                                  | 25.4           |
| 4      | I-1                                    | Scombridae Euthynnus alletteratus     |                      | 30.4                                  | 27.4           |
| 14     | I <b>-</b> 2                           | 11                                    | 13.0                 | 32.8                                  | 24.4           |
| 4      | I <b>-</b> 3                           | 11                                    | 12.6                 | 35.6                                  | 23.2           |
| 4      | II-1                                   | i, m                                  | 42.7                 | 31.3                                  | 26.4           |
| 4      | II <b>-</b> 2                          | 11                                    | 19.4                 | _                                     | 23.9           |
| 14     | II <b>-</b> 3                          | **                                    | 61.7                 | 35.9                                  | 22.4           |
| 4      | II-4                                   | II .                                  | 12.4                 | _                                     | _              |
| 14     | II <b>-</b> 5                          | "                                     | 147.3                | 35.4                                  | 24.4           |
| 14     | II <b>-</b> 6                          | 11                                    | 26.5                 | 35.6                                  | 23.8           |
| 4      | II <b>-</b> 7                          | 11                                    | 14.2                 | -                                     | -              |

Appendix table 2. (Continued).

|                  | **              |                                 | Abundance            | <u> </u>      |                |
|------------------|-----------------|---------------------------------|----------------------|---------------|----------------|
|                  | Transect-       | Taxon                           | No. per              | Salinity 0/00 | Temperature °C |
| Cruise           | station         | Family - genera & species       | 1,000 m <sup>3</sup> | (mean)        | (mean)         |
| ,                |                 |                                 | _                    | 22 (          | 05.6           |
| 4                | III-1           | Scombridae Euthynnus alletterat |                      | 32.6          | 25.6           |
| 4                | III-2           |                                 | 5.9                  | 34.8          | 23.3           |
| 4                | III-3           | <b>!!</b>                       | 3.2                  | 35.1          | 22.6           |
| 4                | IV-l            | Ħ                               | 0 -                  | 33.7          | 24.6           |
| 4                | IV-2            | 11                              | 0                    | 34.7          | 24.2           |
| 4                | IV-3            | 11                              | 0                    | 35.6          | 22.8           |
| 5                | II-l            | "                               | -                    | 34.2          | 27.8           |
| 5                | ΪΪ <b>-</b> 2   | **                              | 37.9                 | 35.7          | 26.0           |
| 5                | II-3            | 11                              | 13.6                 | 36.0          | 23.4           |
| 5                | II-4            | 11                              | 37.6                 | 34.9          | 27.2           |
| 5<br>5<br>5<br>5 | . II <b>-</b> 5 | 11                              | 3.8                  | 35.9          | 25.1           |
| 5                | II <b>-</b> 6   | 11                              | 18.6                 | 35.9          | 24.4           |
| 5                | II <b>-</b> 7   | 11                              | 9.1                  | <u>-</u>      | _              |
| 5<br>6           | II-i            | 11                              | 16.3                 | 37.4          | 25.6           |
| 6                | II <b>-</b> 2   | 11                              | 0                    | 36.2          | 27.4           |
| 6                | II <b>-</b> 3   | H .                             | 5.7                  | 36.3          | 26.7           |
| 6                | II-4            | 11                              | 19.5                 | 36.6          | 28.1           |
| 6                | II-5            | 11                              | 0                    | 35.5          | 28.0           |
| 6                | II <b>-</b> 6   | 11                              | 13.9                 | 35.9          | 26.9           |
| 6                | II-7            | 11                              | 10.0                 | -<br>-        |                |
| 7                | I-1             | 11                              | 0                    | 33.5          | 28.5           |
| 7                | I <b>-</b> 2    | 11                              | 6.0                  | 35.5          | 28.4           |
| 7                | I-3             | : <b>11</b>                     | 0                    | 36.4          | 25.3           |
| 7                | II-1            | 11                              | Ö                    | 35.3          | 29.1           |
| 7                | II-1<br>II-2    | 11                              | 0                    | 36 <b>.</b> 2 | 27.4           |
|                  | II-2<br>II-3    | "                               | 14.3                 | 36.6          | 23.2           |
| 7                |                 | 11                              | 0                    | 35.8          | 28.7           |
| 7                | II-4            | 11                              |                      |               | 24.4           |
| 7                | II-5            |                                 | 11.0                 | 36.3          |                |
| 7                | II-6            |                                 | 7.3                  | 36.6          | 23.5           |
| 7                | II-7            |                                 | 7.9                  | 26.0          | -              |
| 7                | III-1           | **                              | 7.4                  | 36.2          | 29.2           |

Appendix table 2. (Continued).

| Transect-<br>Cruise station |                | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>0</sup> /oo<br>(mean) | Temperature °C (mean) |
|-----------------------------|----------------|------------------------------------|----------------------------------------------|-------------------------------------|-----------------------|
| _                           | _              |                                    |                                              |                                     |                       |
| 7                           | III <b>-</b> 2 | Scombridae Euthynnus alletterati   |                                              | 36.3                                | 25.2                  |
| 7                           | III-3          | 11                                 | 4.1                                          | 36.5                                | 23.3                  |
| 7                           | IV-1           | 11                                 | 0                                            | 36.3                                | 28.6                  |
| 7                           | IV-2           | 11                                 | 0                                            | 36.7                                | 25.8                  |
| 7                           | IV-3           | 11                                 | 12.7                                         | 36.5                                | 25.4                  |
| 1                           | I-l            | Serranidae                         | _                                            | 33.1                                | 15.3                  |
| 1                           | I <b>-</b> 2   | 11                                 | 85.5                                         | 35.5                                | 18.9                  |
| 1                           | I <b>-</b> 3   | "                                  | _                                            | 36.3                                | 20.2                  |
| 1                           | II-l           | 11                                 | _                                            | 33.1                                | 15.8                  |
| 1                           | II <b>-</b> 2  | 11                                 | 173.5                                        | 35.7                                | 19.3                  |
| 1                           | · II-3         | 11                                 | 2.1                                          | 36.3                                | 19.7                  |
| 1                           | II-4           | 11                                 | 56.0                                         | 33.5                                | 16.6                  |
| 1                           | II <b>-</b> 5  | 11                                 | 11.3                                         | 36.2                                | 20.6                  |
| 1                           | II <b>-</b> 6  | 11                                 | 6.4                                          | 36.2                                | 20.4                  |
| 1                           | II <b>-</b> 7  | 11                                 | 3.0                                          | _                                   |                       |
| 1                           | III-i          | 11                                 | 27.7                                         | 32.6                                | 15.0                  |
| ī                           | III-2          | , <b>11</b>                        | 6.2                                          | 36.2                                | 20.7                  |
| ī                           | III-3          | 11                                 | -                                            | 36.3                                | 20.5                  |
| 1                           | IV-1           | 11                                 | _                                            | 32.6                                | 15.1                  |
| ī                           | IV-2           | 11                                 | 45.3                                         | 35.4                                | 19.9                  |
| 1                           | IV-3           | 11                                 | 5.6                                          | 36.2                                | 20.9                  |
| 2                           | II-1           | 11                                 | 14.2                                         | 29.7                                | 17.8                  |
| 2                           | II-2           | . 11                               | 147.7                                        | 35.8                                | 20.5                  |
| 2                           | II <b>-</b> 3  | 11                                 | 9.3                                          | 36.1                                | 19.8                  |
| 2                           | II-4           | tt .                               | <b>7.</b> 5                                  | 33.9                                | 18.3                  |
| 2                           | II-5           | 11                                 | 31.8                                         | 36.1                                | 20.7                  |
| 2                           | II-6           | tt .                               | 42.1                                         | 36.1                                | 20.2                  |
| 2                           | II <b>-</b> 7  | tt                                 | 36.7                                         | JO-1                                | -                     |
| 3                           | II-1           | 11                                 | _<br>JO•1                                    | 30 <b>.</b> 2                       | 18.6                  |
| 3                           | II <b>-</b> 2  | 11                                 | 97.7                                         | 35.2                                | 19.9                  |
| ى                           | TT-5           |                                    | 91.1                                         | 37.4                                | エフ・フ                  |

Appendix table 2. (Continued).

| Cruise  | Transect-<br>station | _          |                      | Salinity 0/00 (mean) | Temperature °C (mean) |
|---------|----------------------|------------|----------------------|----------------------|-----------------------|
| or urse | Doctorion            |            | 1,000 m <sup>3</sup> |                      |                       |
| 3       | II-3                 | Serranidae | 67.7                 | 36.0                 | 20.3                  |
| 3       | II-4                 | 11         | 199.4                | 34.7                 | 19.8                  |
| 3       | II <b>-</b> 5        | <b>11</b>  | 125.3                | 35.7                 | 20.6                  |
| 3       | II <b>-</b> 6        | 11         | 153.0                | 36.0                 | 20.6                  |
| 3       | II <b>-</b> 7        | 11         | 134.4                | -                    | _                     |
| 4       | I-1                  | 11         | 206.4                | 30.4                 | 27.4                  |
| ĴŤ      | I <b>-</b> 2         |            | 509.3                | 32.8                 | 24.4                  |
| 4       | I-3                  | 11         | 12.7                 | 35.6                 | 23.2                  |
| 4       | II-1                 | 11         | 73.2                 | 31.3                 | 26.4                  |
| 14      | II-2                 | 11         | 149.8                | -                    | 23.9                  |
| 4       | · II-3               | 11         | 38.2                 | 35.9                 | 22.4                  |
| 14      | II-14                | 11         | 291.7                | _                    | -                     |
| 4       | II-5                 | 11         | 45.1                 | 35.4                 | 24.4                  |
| 14      | II <b>-</b> 6        | tt .       | 33.3                 | <b>35.</b> 6         | 23.8                  |
| 14      | II <b>-</b> 7        | 11         | 18.0                 | -                    | -                     |
| 14      | III-1                | II .       | 121.5                | 32.6                 | 25.6                  |
| 14      | III-2                | . "        | 23.2                 | 34.8                 | 23.3                  |
| 14      | III-3                | 11         | 22.2                 | 35.1                 | 22.6                  |
| 14      | IV-1                 | 11         | 31.2                 | 33.7                 | 24.6                  |
| 4       | IV-2                 | 11         | 32.0                 | 34.7                 | 24.2                  |
| 4       | IV-3                 | **         | 33.3                 | 35.6                 | 22.8                  |
| 5       | II-1                 |            | 25.2                 | 34.2                 | 27.8                  |
| 5       | II <b>-</b> 2        | 11         | 54.8                 | 35.7                 | 26.0                  |
| 5       | II <b>-</b> 3        | 11         | 15.0                 | 36.0                 | 23.4                  |
|         | II-4                 | <b>"</b> ; | 36.9                 | 34.9                 | 27.2                  |
| 5<br>5  | II-5                 | 11         | 3.8                  | 35.9                 | 25.1                  |
| 5       | 11-6                 | 11         | 20.9                 | 35.9                 | 24.4                  |
| 5       | II <b>-</b> 7        | 11         | 2.1                  | -                    | -                     |

Appendix table 2. (Continued).

|        |                                      |            | Abundance            |                           |                    |  |
|--------|--------------------------------------|------------|----------------------|---------------------------|--------------------|--|
|        | Transect-                            | Taxon      | No. per              | Salinity O/oo             | Temperature °C     |  |
| Cruise | se station Family - genera & species |            | 1,000 m <sup>3</sup> | (mean)                    | (mean)             |  |
| 6      | II-1                                 | Serranidae | _                    | 37.4                      | 25.6               |  |
| 6      | II-2                                 | "          | 47.2                 | 36.2                      | 27.4               |  |
| 6      | II-3                                 | 11         | 35.6                 | 36.3                      | 26.7               |  |
| 6      | II-4                                 | 11         | 27.7                 | 36.6                      | 28.1               |  |
| 6      | II-5                                 | 11         | 18.3                 | 35.5                      | 28.0               |  |
| 6      | II <b>-</b> 6                        | 11         | 35.2                 | 35.9                      | 26.9               |  |
| 6      | II-7                                 | 11         | 28.9                 | JJ•3                      | -                  |  |
| 7      | I-1                                  |            | 20.9                 | 33.5                      | 28.5               |  |
| 7      | I-2                                  |            | 11.9                 | 35.5                      | 28.4               |  |
| 7      | I <b>-</b> 3                         | 11         | 28.7                 | 36.4                      | 25.3               |  |
| 7      | . II-1                               | 11         | 20.1                 | 35.3                      | 29.1               |  |
| 7      | II-2                                 | 11         | 20.0                 | 36 <b>.</b> 2             | 27.4               |  |
| 7      | II-3                                 | 11         | 41.1                 | 36 <b>.</b> 6             | 23.2               |  |
| 7      | II-4                                 | 11         | ÷<br>+1•1            | 35.8                      | 28.7               |  |
| 7      | II-4<br>II-5                         | **         | 23.7                 | 36.3                      | 24.4               |  |
| 7      | 11 <b>-</b> 5                        | 11         | 10.5                 | 36.6                      | 23.5               |  |
| 7      | II-7                                 | 11         | 26.7                 | 30.0                      | <u>-</u>           |  |
| 7      | III-1                                |            | 14.8                 | <b>-</b><br>36 <b>.</b> 2 | -<br>29 <b>.</b> 2 |  |
| 7      |                                      | 11         | 113.0                | 36.3                      | 25.2               |  |
|        | III-2                                | 11         |                      |                           | 23.3               |  |
| 7      | III-3                                | "          | 30.9                 | 36.5                      |                    |  |
| 7      | IV-1                                 | 11         | 7.0                  | 36.3                      | 28.6               |  |
| 7      | IV-2                                 |            | 7.0                  | 36.7                      | 25.8               |  |
| 7      | IV-3                                 |            | 87.1                 | 36.5                      | 25.4               |  |
| 8      | II-l                                 |            | _                    | 32.4                      | 20.4               |  |
| 8      | II-2                                 | "          | 7.8                  | 35.9                      | 23.3               |  |
| 8      | II-3                                 |            | 13.8                 | 36.3                      | 21.1               |  |
| 8      | II-14                                | 11         | -                    | 35.4                      | 22.6               |  |
| 8      | II-5                                 | #          | , <b>-</b>           | 36.3                      | 23.3               |  |
| 8      | II <b>-</b> 6                        | <b>!!</b>  | 40.1                 | 36.3                      | 22.4               |  |
| 8      | II <b>-</b> 7                        | 11         | 6.4                  | 36.2                      | 18.9               |  |

Appendix table 2. (Continued).

|        | <del></del>       |                                         |                      |               |                |
|--------|-------------------|-----------------------------------------|----------------------|---------------|----------------|
|        | Transect-         | Taxon                                   | No. per              | Salinity 0/00 | Temperature °C |
| Cruise | station           | Family - genera & species               | 1,000 m <sup>3</sup> | (mean)        | (mean)         |
| •      | TT 3              | Serranidae                              | 13.1                 | 33.5          | 14.9           |
| 9      | II-1              | berranidae                              |                      |               | 19.0           |
| 9      | II <b>-</b> 2     |                                         | 157.8                | 35.7<br>36.3  | 20.3           |
| 9      | II-3              | **                                      | 10.4                 |               |                |
| 9      | II-4              |                                         | 11.1                 | 36.2          | 19.5           |
| 9      | II-5              |                                         | 4.6                  | 36.3          | 21.1           |
| 9      | II <b>-</b> 6     | "                                       | 6.1                  | 36.3          | 21.0           |
| 9      | II <b>-</b> 7     | •                                       | 19.1                 | 36.3          | 18.6           |
| 1      | I <b>-</b> 1      | Serranidae <u>Diplectrum</u> sp.        | Û                    | 33.1          | 15.3           |
| 1      | I <b>-</b> 2      | 11                                      | 0                    | 35.5          | 18.9           |
| 1      | I <b>-</b> 3      | 11                                      | 0                    | 36.3          | 20.2           |
| 1      | . II <b>-</b> 1   | II .                                    | 0                    | 31.1          | 15.8           |
| 1      | II <b>-</b> 2     | 11                                      | 0                    | 35.7          | 19.3           |
| 1      | II-3              | "                                       | 6.3                  | 36.3          | 19.7           |
| 1      | II-4              | 11                                      | 0 ·                  | 33.5          | 16.6           |
| 1      | II-5              | 11                                      | 0                    | 36.2          | 20.6           |
| 1      | II <b>-</b> 6     | 11                                      | 0                    | 36.2          | 20.4           |
| 1      | II <b>-</b> 7     | 11                                      | . 0                  | _             | -              |
| 1      | III-1             | · • • • • • • • • • • • • • • • • • • • | 0                    | 32.6          | 15.0           |
| ī      | III-2             | 11                                      | 0                    | 36.2          | 20.7           |
| ī      | III-3             | 11                                      | 0                    | 36.3          | 20.5           |
| ĺ      | IV-1              | 11                                      | 0                    | 32.6          | 15.1           |
| ī      | IV-2              | 11                                      | 0                    | 35.4          | 19.9           |
| ī      | IV-3              | . 11                                    | 0                    | 36.2          | 20.9           |
| 2      | II-1              | ti .                                    | Ō                    | 29.7          | 17.8           |
| 2      | II <del>-</del> 2 | 11                                      | 39.4                 | 35.8          | 20.5           |
| 2      | II-3              | 11                                      | 2.7                  | 36.1          | 19.8           |
| 2      | II-4              | 11                                      | 0                    | 32.9          | 18.3           |
| 2      | II-5              | 11                                      | 9.1                  | 36.1          | 20.7           |
| 2      | 11 <b>-</b> 6     | 11                                      | 17.3                 | 36.1          | 20.2           |
| 2      | II-7              | 11                                      | 6.5                  | JO • T        |                |
| 2      | TT- {             |                                         | 0.7                  | -             | <del>-</del>   |

Appendix table 2. (Continued).

| Transect-<br>Cruise station |                                | Taxon<br>Family - genera & species | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo (mean) | Temperature °C (mean) |
|-----------------------------|--------------------------------|------------------------------------|----------------------------------------------|----------------------------------|-----------------------|
| 3                           | II-l Serranidae Diplectrum sp. |                                    | 0                                            | 30.2                             | 18.6                  |
| 3                           | II <b>-</b> 2                  | 11                                 | 0                                            | 35.2                             | 19.9                  |
| 3                           | II-3                           | 11                                 | 18.4                                         | 36.0                             | 20.3                  |
| 3                           | II-4                           | ii .                               | 0                                            | 34.7                             | 19.8                  |
| 3                           | II <b>-</b> 5                  | 11                                 | 12.3                                         | 35.7                             | 20.6                  |
| 3                           | II <b>-</b> 6                  | 11                                 | 16.0                                         | 36.0                             | 20.6                  |
| 3                           | II <b>-</b> 7                  | 11                                 | 53.2                                         | _                                | _                     |
| 4                           | I-1                            | "                                  | 206.4                                        | 30.4                             | 27.4                  |
| 4                           | I <b>-</b> 2                   | 11                                 | 509.3                                        | 32.8                             | 24.4                  |
| 4                           | I-3                            | 11                                 | 8.5                                          | 35.6                             | 23.2                  |
| 14                          | . II-1                         | 11                                 | 30.5                                         | 31.3                             | 26.4                  |
| 4                           | II-2                           | 11                                 | 143.3                                        | -                                | 23.9                  |
| 4                           | II <b>-</b> 3                  | 11                                 | 23.3                                         | 35.9                             | 22.4                  |
| 4                           | II-4                           | 11                                 | 265.9                                        | _                                | _                     |
| 4                           | II <b>-</b> 5                  | 11                                 | 33.3                                         | 35.4                             | 24.4                  |
| 4                           | 11-6                           | 11                                 | 8.9                                          | 35.6                             | 23.8                  |
| 4                           | II <b>-</b> 7                  | 11                                 | 6.0                                          | -                                | -                     |
| <u>,</u> 4                  | III-1                          | . "                                | 58.1                                         | 32.6                             | 25.6                  |
| 4                           | III-2                          | 11                                 | 17.5                                         | 34.8                             | 23.3                  |
| 4                           | III-3                          | 11                                 | 9.5                                          | 35.1                             | 22.6                  |
| 4                           | IV-1                           | 11                                 | 0                                            | 33.7                             | 24.6                  |
| 14                          | IV-2                           | 11                                 | 8.0                                          | 34.7                             | 24.2                  |
| 4                           | IV-3                           | <u> </u>                           | 13.6                                         | 35.6                             | 22.8                  |
| 5                           | II-l                           | 11                                 | 0                                            | 34.2                             | 27.8                  |
| 5                           | II <b>-</b> 2                  | 11                                 | 26.5                                         | 35.7                             | 26.0                  |
| 5                           | II-3                           | 11                                 | 0                                            | 36.0                             | 23.4                  |
| 5                           | II-4                           | 11                                 | 24.4                                         | 34.9                             | 27.2                  |
| 5                           | II <b>-</b> 5                  | 11                                 | 0                                            | 35.9                             | 25.1                  |
| 5                           | 11-6                           | 11                                 | 3.9                                          | 35.9                             | 24.4                  |
| 5                           | II-7                           | 11                                 | 0                                            | _                                | _                     |

| Cruise | Transect-<br>station | Family -  | Taxon<br>genera & s | pecies                                | Abundance<br>No. per<br>1,000 m <sup>3</sup> | Salinity O/oo (mean) | Temperature °C (mean) |
|--------|----------------------|-----------|---------------------|---------------------------------------|----------------------------------------------|----------------------|-----------------------|
| 6      | II-1                 | Serranida | e Diplectr          | um sp.                                | _                                            | 37.4                 | 25.6                  |
| 6      | II-2                 |           | 11                  | <u></u> - <u>-</u>                    | 12.8                                         | 36.2                 | 27.4                  |
| 6      | II-3                 |           | tt 1                |                                       | 4.3                                          | 36.3                 | 26.7                  |
| 6      | II-4                 |           | 11                  |                                       | 27.7                                         | 36.6                 | 28.1                  |
| 6      | II-5                 |           | 11                  |                                       | _, ,                                         | 35.5                 | 28.0                  |
| 6      | II <b>-</b> 6        |           | 11                  |                                       | 7.4                                          | 35.9                 | 26.9                  |
| 6      | II-7                 |           | 11                  |                                       | 2.4                                          | -<br>-               |                       |
| 7      | I-1                  |           | 11                  | •                                     | 0                                            | 33.5                 | 28.5                  |
| ;<br>7 | I-2                  |           | 11                  | 400                                   | Ö                                            | 35.5                 | 28.4                  |
| 7      | I-3                  |           | 11                  |                                       | Ö                                            | 36.4                 | 25.3                  |
| 7      | . II <b>-</b> 1      |           | 17                  |                                       | Ö                                            | 35.3                 | 29.1                  |
| 7      | II-2                 |           | 11                  |                                       | ŏ                                            | 36.2                 | 27.4                  |
| 7      | II-2<br>II-3         |           | 11                  |                                       | 3.0                                          | 36.6                 | 23.2                  |
| 7      | II-4                 |           | 11                  |                                       | 0.                                           | 35.8                 | 28.7                  |
| 7      | II-5                 |           | **                  |                                       | 5.5                                          | 36.3                 | 24.4                  |
| 7      | II <b>-</b> 6        |           | 11                  |                                       | 3.7                                          | 36.6                 | 23.5                  |
| 7      | II-7                 |           |                     |                                       | 4.2                                          | _                    |                       |
| 7      | III-1                |           | **                  |                                       | 0                                            | 36.2                 | 29.2                  |
| 7      | III-2                |           | <b>11</b>           |                                       | 8.8                                          | 36.3                 | 25.2                  |
| 7      | III-3                |           | 11                  |                                       | 0                                            | 36.5                 | 23.3                  |
| 7      | IV-1                 | • • • •   | 71                  | · · · · · · · · · · · · · · · · · · · | Ö                                            | 36.3                 | 28.6                  |
| 7      | IV-2                 | •         | 11                  | <del>-</del>                          | Q.                                           | 36.7                 | 25.8                  |
| 7 .    | IV-3                 |           | **                  | * 14* *                               | 0                                            | 36.5                 | 25.4                  |
| 8      | II-1                 |           | **                  |                                       | Ö                                            | 32.4                 | 20.4                  |
| 8      | II <b>-</b> 2        |           | 11                  | • •                                   | Ö                                            | 35.9                 | 23.3                  |
| 8      | II-3                 |           | 11                  |                                       | 3.3                                          | 36.3                 | 21.1                  |
| 8      | II-4                 |           | 11                  | • •                                   | 0                                            | 35.4                 | 22.6                  |
| 8      | II-5                 |           | 11                  |                                       | Ö                                            | 36.3                 | 23.3                  |
| . 8    | II-6                 |           | 11                  | ٠.                                    | Ö                                            | 36.3                 | 22.4                  |
| 8      | II-6<br>II-7         |           | 11                  |                                       | 2.0                                          | 36.2                 | 18.9                  |

Appendix table 2. (Continued).

|        |                      |                                    | Abundance                       |                                     |                       |  |
|--------|----------------------|------------------------------------|---------------------------------|-------------------------------------|-----------------------|--|
| Cruise | Transect-<br>station | Taxon<br>Family - genera & species | No. per<br>1,000 m <sup>3</sup> | Salinity <sup>O</sup> /oo<br>(mean) | Temperature °C (mean) |  |
| 9      | II-1                 | Serranidae Diplectrum sp.          | 0                               | 33.5                                | 14.9                  |  |
| 9      | II-2                 | 11                                 | 7.3                             | 35.7                                | 19.0                  |  |
| 9      | II <b>-</b> 3        | 11                                 | 3.0                             | 36.3                                | 20.3                  |  |
| 9      | II-4                 | 11                                 | 11.1                            | 36.2                                | 19.5                  |  |
| 9      | II-5                 | Ħ .                                | 4.6                             | 36.3                                | 21.1                  |  |
| 9      | II-6                 | 11                                 | 0                               | 36.3                                | 21.0                  |  |
| 9      | II <b>-</b> 7        | II .                               | 2.6                             | 36.3                                | 18.6                  |  |



### The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



### The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.