NOAA Technical Memorandum NMFS-AFSC-156

Results of the 2004 Eastern Bering Sea Upper Continental Slope Survey of Groundfish and Invertebrate Resources

by
G. R. Hoff and L. L. Britt

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Alaska Fisheries Science Center

August 2005

NOAA Technical Memorandum NMFS

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This document should be cited as follows:

> Hoff, G. R., and L. L. Britt. 2005. Results of the 2004 Eastern Bering Sea upper continental slope survey of groundfish and invertebrate resources. U. S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-156, 276 p.

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August 2005

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ABSTRACT

The results of the 2004 Alaska Fisheries Science Center's (AFSC) bottom trawl survey of the groundfish and invertebrate resources of the eastern Bering Sea upper continental slope (BSS) is presented. The 2004 BSS survey is the second biennial groundfish survey standardized to the AFSC's latest technologies and protocols for survey design, net design, catch data gathering, species identification and recognition, and net mensuration monitoring.

Two hundred and forty survey bottom trawls were conducted from 200 to 1,200 m on the slope with 231 tows being successful and used for abundance estimates. The survey area stretched from north of the Aleutian Islands, Alaska, at 54° N to near the Russian-U.S. border at 61° N. Sampling was stratified by six subareas running north to south and by five depth strata within each subarea. Target sampling effort was proportional to the area (km^2) in each subarea and depth strata. An average tow represented a mean sampling density of one tow per an approximate 162 km^2.

This report provides estimates of biomass in metric tons (t), population, and catch per unit effort (CPUE; no./ha and kg/ha) for all species identified on the survey. Size frequencies (39 species) and CPUE distribution (40 species) plots are presented for the most abundant or for species of commercial and ecological interest.

The largest survey total catch weights of fish and invertebrate species encountered during the 2004 slope survey included; giant grenadier (*Albatrossia pectoralis*), Pacific ocean perch (*Sebastes alutus*), walleye pollock (*Theragra chalcogramma*), arrowtooth flounder (*Atheresthes stomias*), popeye grenadier (*Coryphaenoides cinereus*), sea cucumber (*Parastichopus leucothele*), the triangle Tanner crab (*Chionoecetes angulatus*), and the notched brittle star (*Ophiura sarsi*).

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INTRODUCTION

The Alaska Fisheries Science Center's (AFSC) Resource Assessment and Conservation Engineering Division (RACE) conducted a bottom trawl survey in 2004 to assess the groundfish and invertebrate resources on the eastern Bering Sea upper continental slope (BSS). The standard survey area extended from Unalaska and Akutan Island to the U.S.-Russian border near the International Date Line (166° E lat. to 180° W long.) at depths from 200 to 1,200 m.

The 2004 BSS survey is the second of a biennial groundfish survey standardized to the AFSC's latest technologies and protocols for survey design, catch data gathering, species identification and recognition, and net mensuration monitoring. The first standardized survey in this series for the eastern Bering Sea slope was conducted in 2002 and complete survey details and results are reported in NOAA Technical Memorandum NMFS-AFSC-141 (Hoff and Britt 2003). Prior to these surveys, a pilot survey was conducted in 2000 on the BSS to test two versions of the Poly Nor'eastern bottom trawl gear for use on the slope. The pilot study concluded that the Poly Nor'eastern net with mud sweep gear was more efficient and robust for sampling the BSS survey area bottom (Mark Wilkins, pers. commun.[1]). Prior to 2000, a triennial survey was conducted from 1979 to 1991 on the BSS using a variety of nets, methods, vessels, and sampling locations. The data from these surveys has been summarized in numerous data reports (Bakkala et al.1985a, Bakkala et al. 1985b, Sample et al. 1985, Walters et al. 1988, Bakkala et al. 1992, Goddard and Zimmermann 1993). The degree of comparability between the post-2000 surveys and those conducted from 1979 to 1991 has yet to be determined due to the differences in sampling gear, survey design, sampling methodology, and species identification.

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[1]Mark Wilkins, Alaska Fisheries Science Center, 2003.

This report summarizes the survey design, sampling gear, and survey logistics and personnel used on this survey. Estimates of abundance, distribution, and size frequency are presented for commercially and ecologically important species. The purpose of this report is to provide a record for reference with the results from future surveys and provide information on the biological resources encountered to the scientific community, the fishing industry, and the general public.

METHODS

Survey Area and Sampling Design

The BSS survey area was divided into six subareas (1-6) running south to north along the slope (Fig.1). The subareas were based on geologically distinct bathymetric types: broad low slope areas, canyon areas, and steep slope inter-canyon faces. Subareas 1 and 6 consist of broad low slope areas with wide bathymetric contours in the 200-600 m depth range followed by a gradual slope to 1,200 m. Subareas 2 and 4 consist of Pribilof and Zemchug Canyons, respectively, which are characterized by semi-enclosed basins with steep walls and narrow bathymetric contours below 600 m. Subareas 3 and 5 are steep slope inter-canyon "faces" with narrow bathymetric contours throughout most of their depths. Each subarea was defined in most cases by the nearest latitude or longitude line.

The survey area consisted of six designated subareas within depths ranging from 200 to 1,200 m. Depth strata were established every 200 m resulting in five depth strata for each subarea (200 m-400 m; 400 m-600 m; 600 m-800 m; 800 m-1,000 m; 1,000 m-1,200 m). Calculated

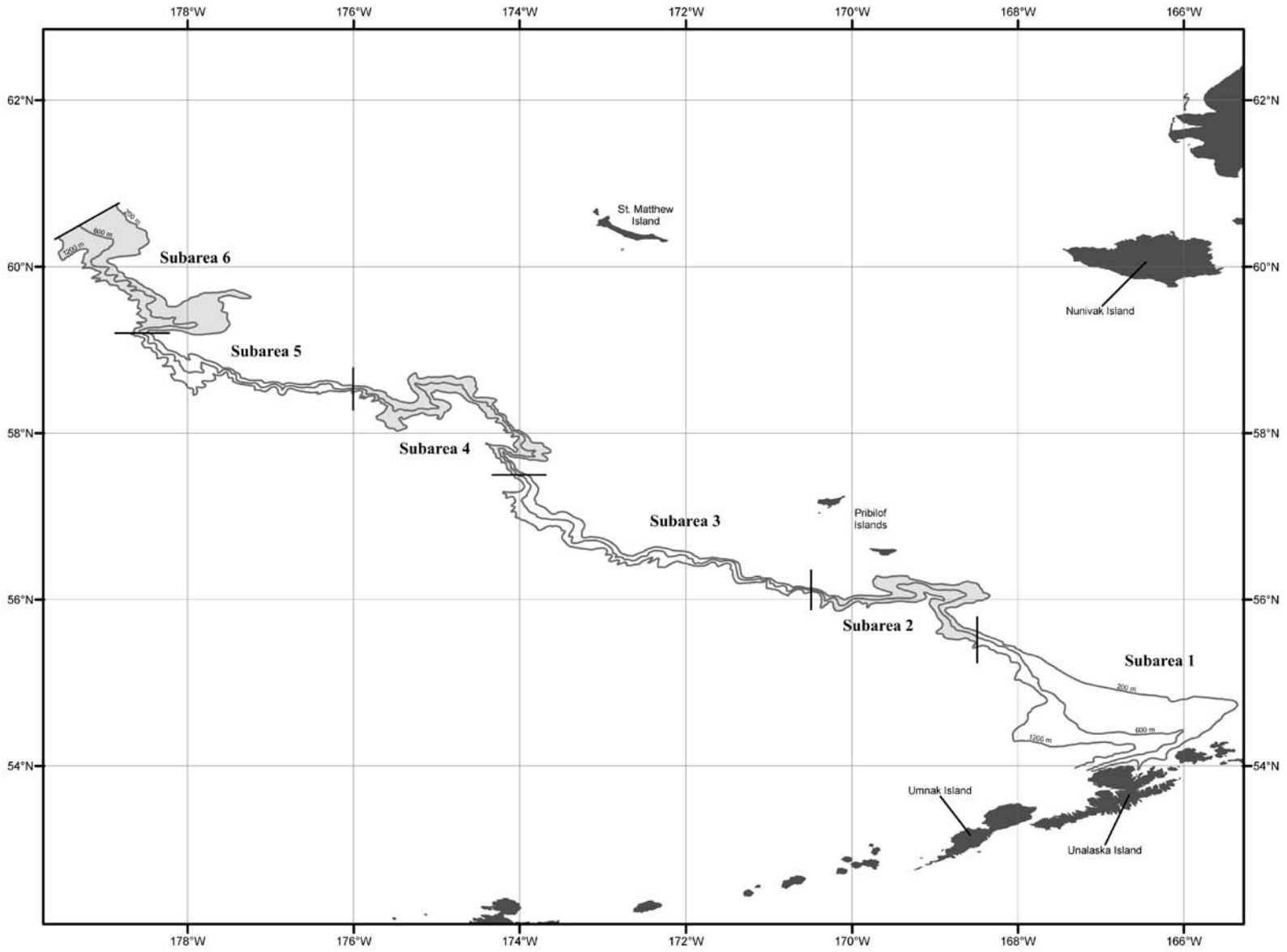


Figure 1. Geographic features and stratifications used for analysis of the survey area for the 2004 eastern Bering Sea upper continental slope survey.

areas (km^2) within each substratum were based on the best bathymetry contour lines available (Table 1) and used to determine the sampling density for each depth strata and subarea. The survey utilized a stratified random sampling design where target sampling densities were relatively constant within and among depth strata and subareas. Sampling densities within the depth strata and subareas ranged from one haul per 107 km^2 to one haul per 337 km^2 with a mean sampling density of one haul per 162 km^2. Sampling densities varied due to difficulties in successfully completing all required stations in some deep strata due to areas with untrawlable bottom.

The 240 sampling stations were selected at random from a pool of 140 successful stations completed during the 2002 slope survey and several hundred additional randomly placed locations in the survey area.

Table 1. Sampling effort and density for each subarea and depth strata completed during the 2004 BSS survey.

Subarea	Depth Strata	Total Hauls	% Effort	Area (km^2)	% Area	Sampling Density km^2/haul
	200-400	33	14.29	4,012.41	12.26	121.59
	400-600	37	16.02	4,062.77	12.42	109.80
1	600-800	14	6.06	1,741.66	5.32	124.40
	800-1,000	8	3.46	1,354.74	4.14	169.34
	1,000-1,200	9	3.90	1,106.89	3.38	122.99
	200-400	10	4.33	1,157.64	3.54	115.76
	400-600	5	2.16	705.08	2.15	141.02
2	600-800	5	2.16	591.27	1.81	118.25
	800-1,000	3	1.30	552.73	1.69	184.24
	1,000-1,200	5	2.16	535.67	1.64	107.13
	200-400	7	3.03	903.78	2.76	129.11
	400-600	6	2.60	886.11	2.71	147.68
3	600-800	6	2.60	910.26	2.78	151.71
	800-1,000	4	1.73	732.35	2.24	183.09
	1,000-1,200	2	0.87	675.52	2.06	337.76
	200-400	9	3.90	1,236.27	3.78	137.36
	400-600	5	2.16	730.35	2.23	146.07
4	600-800	4	1.73	693.95	2.12	173.49
	800-1,000	4	1.73	707.59	2.16	176.90
	1,000-1,200	3	1.30	662.42	2.02	220.81
	200-400	3	1.30	423.71	1.29	141.24
	400-600	3	1.30	425.73	1.30	141.91
5	600-800	4	1.73	431.83	1.32	107.96
	800-1,000	3	1.30	551.99	1.69	184.00
	1,000-1,200	2	0.87	570.14	1.74	285.07
	200-400	15	6.49	2,595.79	7.93	173.05
	400-600	10	4.33	1,705.76	5.21	170.58
6	600-800	5	2.16	917.49	2.80	183.50
	800-1,000	5	2.16	645.17	1.97	129.03
	1,000-1,200	2	0.87	496.42	1.52	248.21
Totals	**200-1,200**	**231**	**100**	**32,723.49**	**100**	**mean 162.77**

Survey Agenda and Personnel

The BSS survey began on 3 June 2004 near Unimak Pass and concluded on 11 August 2004 in the south-western eastern Bering Sea. Mobilization and demobilization at the start and end of the survey took place in Dutch Harbor, Alaska. There were two mid-survey exchanges of

scientific crews in Dutch Harbor (legs 1-2) and on St. Paul Island, Pribilofs (legs 2-3). Research personnel for the survey was comprised primarily of AFSC staff and scientific staff from several academic institutions. (Table 2).

Table 2. Survey schedule, research staff and their affiliation during the 2004 BSS survey.

Name	Professional title	Survey title	Affiliation
Leg 1: June 3 - June 23			
Gerald R. Hoff	Research Fisheries Biologist	Chief Scientist	[a]AFSC
William Floering	Research Fisheries Biologist	Deck Boss	AFSC
Duane Stevenson	Research Fisheries Biologist	Biologist	AFSC
Elaina Jorgenson	Research Fisheries Biologist	Biologist	AFSC
Richard Hibpshipman	Research Fisheries Biologist	Feeding Ecology	AFSC
Chante Davis	Biologist	Biologist	[b]MLML
Leg 2: June 23 - July 18			
Gerald R. Hoff	Research Fisheries Biologist	Chief Scientist	AFSC
Lyle Britt	Research Fisheries Biologist	Deck Boss	AFSC
Duane Stevenson	Research Fisheries Biologist	Biologist	AFSC
Benjamin Hunter	Research Fisheries Biologist	Biologist	[c]UW
Katie Dodd	Research Fisheries Biologist	Feeding Ecology	AFSC
Heather Robinson	Biologist	Biologist	[b]MLML
Leg 3: July 18 - August 11			
Lyle Britt	Research Fisheries Biologist	Chief Scientist	AFSC
Stan Kotwicki	Research Fisheries Biologist	Deck Boss	AFSC
James W. Orr	Research Fisheries Biologist	Biologist	AFSC
Barney Baker	Net Mender	Biologist	AFSC
Troy Buckley	Research Fisheries Biologist	Feeding Ecology	AFSC
Wade Smith	Biologist	Biologist	[b]MLML

[a]Alaska Fisheries Science Center, Seattle, Washington
[b]Moss Landing Marine Laboratory, Moss Landing, California
[c]University of Washington Student Volunteer

Vessel, Scientific Gear, and Procedures

The F/V *Northwest Explorer*, a 49 m long commercial stern trawler powered by twin engines developing 1,800 continuous horsepower, was used during the survey. Electronic navigation and fishing equipment on the vessel included global positioning system (GPS) receivers, video position plotters, radar, single sideband and VHF transmitter-receivers, an EC-

150 color video depth sounder, and auto-pilots. The vessel was operated by Captain Dan Carney during the first leg and by Captain Shawn O'Brien during the second and third legs of the survey. A four-member crew aided in the operation of the vessel and in the use of the fishing gear.

The fishing gear consisted of RACE Division standardized trawls, bridles, and trawl doors. A Poly Nor'eastern high-opening bottom trawl equipped with mud-sweep roller gear was used to sample all stations (Fig. 2). This sampling trawl has a 27.2 m headrope with twenty-one 30 cm floats and a 24.3 m long-link chain fishing line attached to a 24.9 m footrope. The body of the net was constructed of 127 mm stretched-mesh polyethylene netting, with 89 mm stretched-mesh polyethylene netting in the codend, and a 32 mm stretched-mesh nylon codend liner. The mud-sweep roller gear was constructed of 203 mm solid rubber disks strung over 16 mm high-tensile chain. The net was fished with 1.83 × 2.75 m (6 × 9 ft; 1,000 kg) steel V-doors rigged with four-point bridles to enhance their stability at slow towing speeds and 55 m bridles between the doors and wingtips. This trawl is similar to the standard trawl historically used for the RACE Division's West Coast Upper Continental Slope survey (Lauth 2000). The net height and width of the trawl were measured using a Scanmar net measurement system. The GPS system, bottom contact sensor, and Seabird microbathythermograph measured tow duration, distance fished, and location; footrope contact; and bottom depth and water temperature, respectively. All data was recorded electronically as well as in paper form. The Haul Log (Appendix A) details each tow conducted on this survey and the net mensuration data which was collected.

Trawlable areas were located at the prescribed depth and location by examining depth soundings over a 1.5-2.0 nautical mile (nmi) horizontal distance. An area was considered towable when the depth changed less than 50m over the 2 nmi transect and it could be determined there

was nothing to impede the completion of the tow or the performance of the gear. Tows were conducted at 2.5 knots for 30 minutes at all depths. Data from the net mensuration and measurements from accessory gear attached to the trawl net included; date, time, latitude, longitude, gear depth, surface temperature, bottom temperature, water column temperature profile, net spread, net height, and bottom contact of the footrope for each tow. Sea surface temperature was determined by gathering approximately 10 liters of surface water at the end of the tow and measuring the temperature using a mercury thermometer. At the end of a tow, data from net mensuration gear, GPS, bottom contact sensor, and microbathythermograph were plotted and examined for appropriate distance, bottom contact, and depth range. Upon viewing all tow data, each tow was given a score on a graded scale which described the general performance of the tow. Successful tows were given positive scores, whereas unsuccessful tows received negative scores. In general, positive tows were considered valid and used for survey abundance estimates, while negative tows were not used in the analysis. Table 3 lists the specific models, versions, and serial numbers or RACE numbers of all significant sampling tools used for this survey.

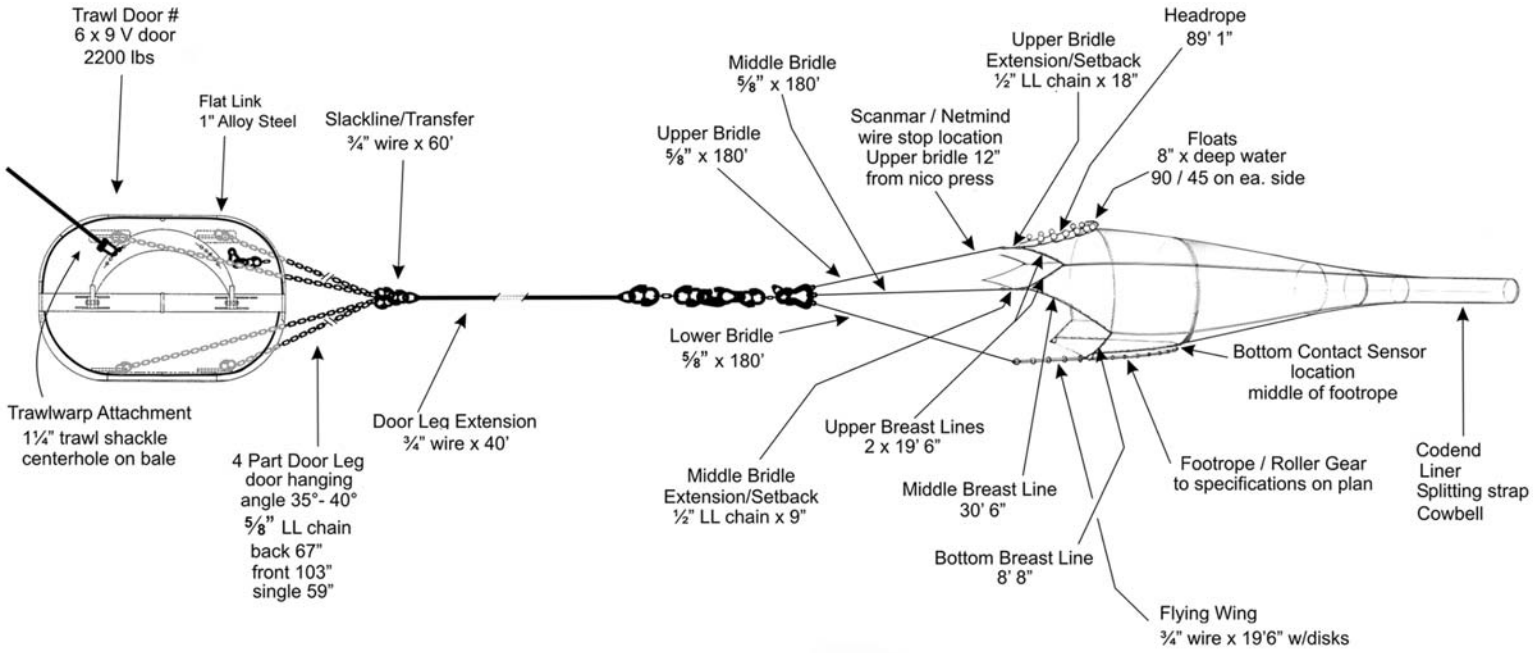


Figure 2. Diagram of the Poly' Noreastern high-rise opening bottom trawl net. Diagram includes a general schematic of the trawl doors, rigging and trawl configuration.

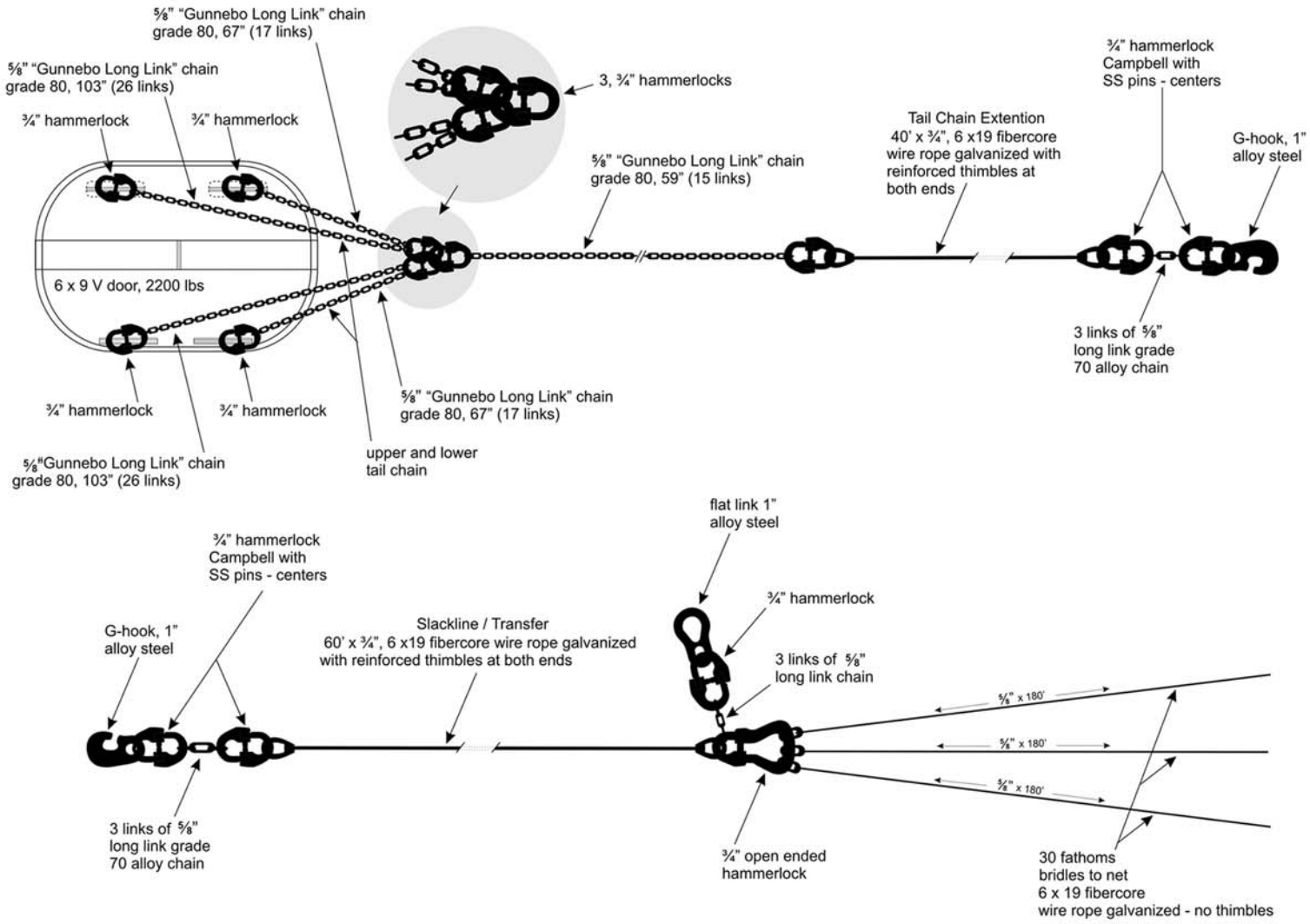
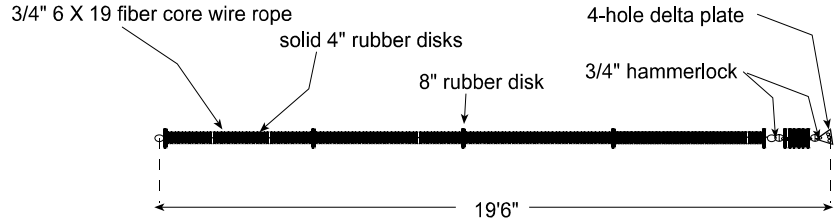
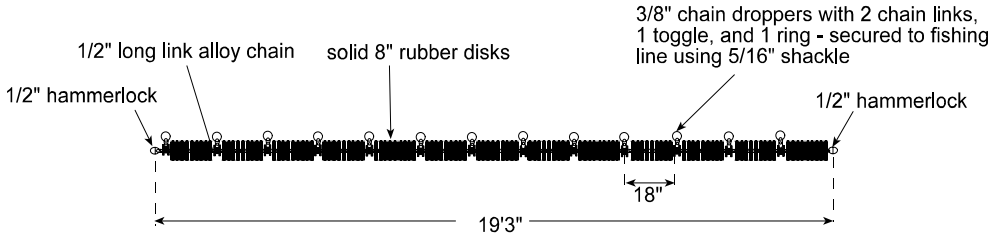


Figure 2. Continued. Detailed diagram of the door rigging, tail chain, slackline, and bridle configurations.

Outboard section



Middle section



Inboard section

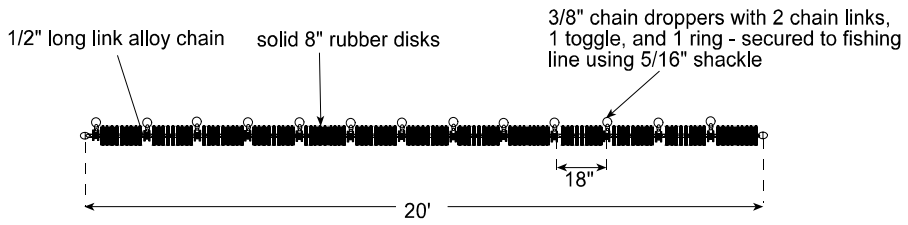


Figure 2. Continued. Detailed diagram of the ground gear sections.

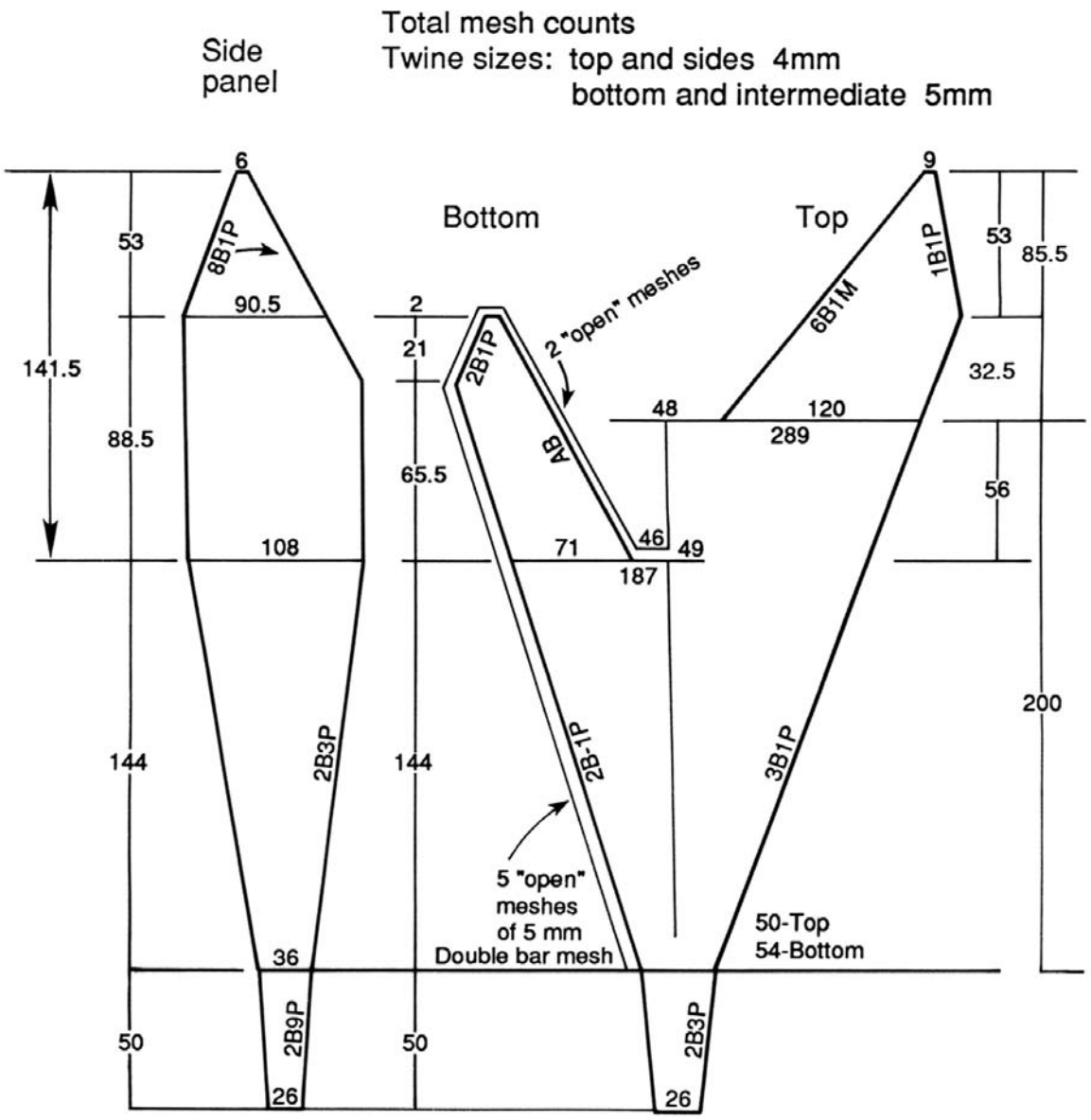


Figure 2. Continued. Detailed diagram and dimensions of the Poly'Noreastern net used During the 2004 BSS survey.

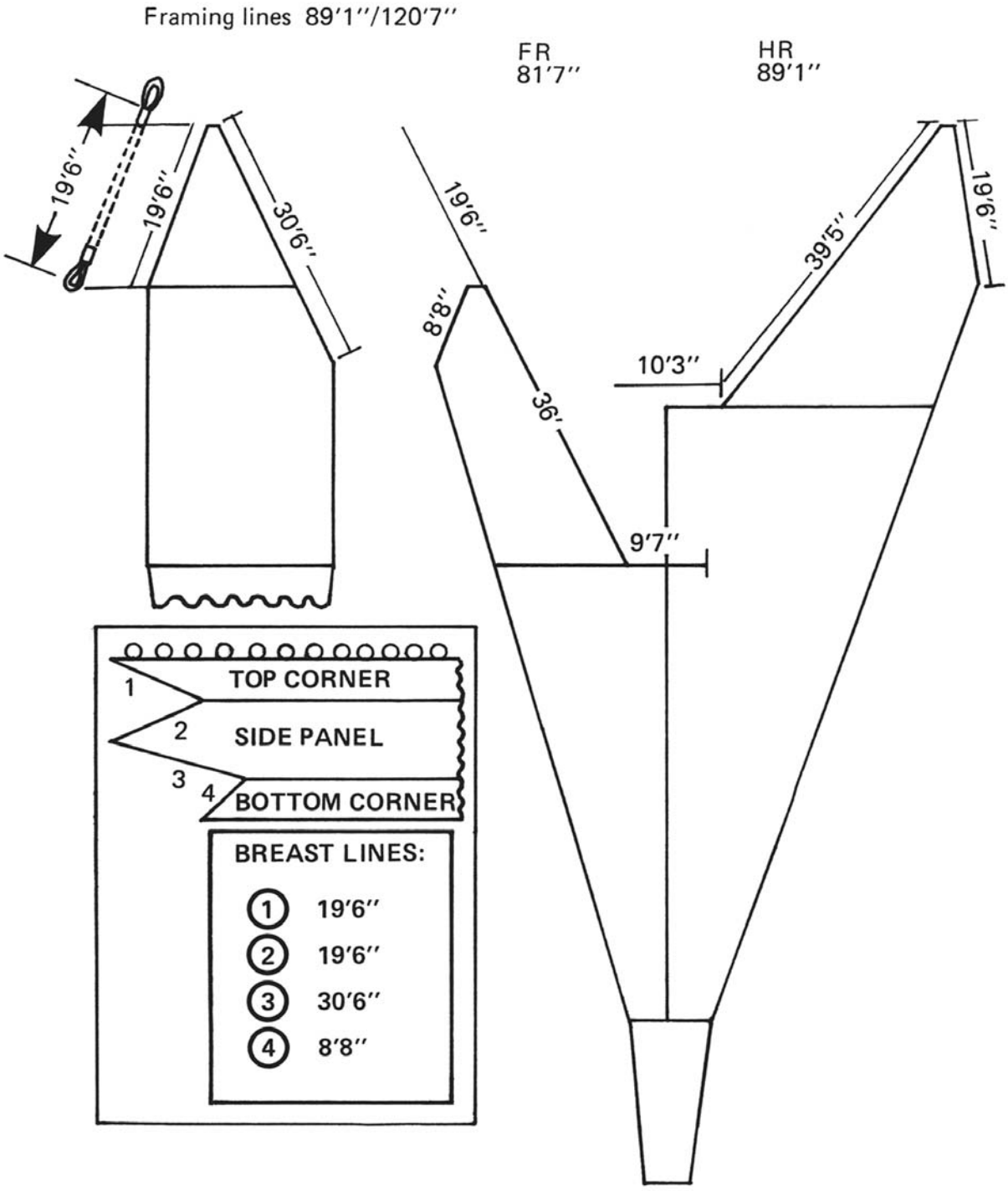


Figure 2. Continued. Detailed diagram and dimensions of the Poly'Noreastern net used during the 2004 BSS survey.

Figure 3. Photo of the bottom contact sensor and its attachment configuration to the ground gear used during the 2004 BSS survey.

Table 3. Details of research fishing gear, sampling equipment, and data recording equipment used during the 2004 BSS survey.

NET & MENSURATION GEAR	DATA TYPE/FUNCTION	MODEL/VERSION/SERIAL #
Poly Nor'Eastern trawl	research sampling tool	Net # 803 Hauls 1-63; Net #201 Hauls 64-240
Doors	spread the net	Doors # 885 Hauls 1-240
Vessel Skipper and Trawl master	operate vessel during trawling operations	Dan Carney Hauls 1-64; Shawn O'Brien Hauls 65-240
Scanmar height sensor	measure net height	Model HC4-HT60 Serial #'s T254C5, T254C2
Scanmar slave spread sensor	measure net spread	Model MTR Serial # 1863
Scanmar master spread sensor	measure net spread	Model HC4 Serial # A3327
Scanmar reciever cabinets	receive signal from master spread sensor	Serial no. 1402 -Model 4002 Serial no. 1400-Model 4004
Scanmar Hydrophone	receive signal from spread and height sensors	Serial #'s 106, 165
Scanmar program	records data from net mensuration gear	AFSC (menu) version 5.71 Bxcrpro-3.7, Convert-4.0, Haulpos-8.0, Haultime-6.82, Scangraf-3.53, Scanplot-11.74, SBELob-1.5, Setclock-3.22, Speedplot-2.41
Furuno GPS	latitude and longitude	
SeaBird SBE-39 V1.7	depth and water temperature	Serial # 00995
ONSET Computers optic shuttles	download bottom contact sensor data	Serial #'s 28543, 29112
ONSET Computers optic base stations	download bottom contact sensor data	Serial #'s 127531, 714280
Bottom Contact Sensor (ONSET tilt sensors)	record bottom-footrope contact	Serial # 30675 (020)
Olympic Wire Counter	measure trawl cable	Olympic Wire Counter 750-N trawl cable meter #511
CATCH PROCESSING AND RECORDING	**DATA TYPE/FUNCTION**	**MODEL/VERSION/SERIAL #**
Marel basket scale	weigh baskets of catch	Model 1100 Type U-2 Serial # A002073
Marel specimen scale	weigh individual specimens	Model 2000 Type M60 Serial #'s 2787, A000588
Measurement Systems International (MSI) load cell	weigh cod end with catch	Model 4300 Serial # 3923855335
Catch data entry program	onboard catch database	Written in Access 97 AFSC version no. 20040107
Juniper systems LS 600 Polycorder	record fish length data	Serial #'s 8183228, 5929, 920-3259, 637-5904
Juniper systems Allegro Field PC	record crab length data	Serial #'s 7961, 7497
Fowler electronic calipers	record crab lengths	ULTRA-CAL IV 200 mm
Dell Computer	data recording	Optiplex Gx1 400 mhz Windows 2000
Laser Printers	produce hard copy of data	
Sony Digital Camera	photograph specimens	Mavica CD400
SCIENTIFIC RESEARCH PERMITS	**DATA TYPE/FUNCTION**	**MODEL/VERSION/SERIAL #**
Federal Scientific Research Permit	allows research sampling	SRP # 2004-9
State of Alaska Research Permit	allows research sampling	CF-04-008
SPECIES IDENTIFICATION GUIDES		
C.W. Mecklenburg, T. A. Mecklenburg, and L. K. Thorsteinson. 2002. Fishes of Alaska. American Fisheries Society, Bethesda, Maryland. 1,037 p.		
D. Kessler. 2002. A Working Field Guide to Trawl Caught Animals:Vol.1 Fishes & Vol.2 Miscellaneous Invertebrates (Unpublished)		
D. Stevenson. 2002. A Field Guide to the Skates (Rajidae) of Alaska (Unpublished)		
Orr, J.W., M.A. Brown, and D.Baker. 2000. Guide to Rockfishes (Scorpaenidae) of the genera *Sebastes* , *Sebastolobus* , and *Adelosebastes* of the northeast Pacific Ocean 2nd ed. U.S. Department of Commerce. NOAA Technical Memorandum NMFS-AFSC-117. 47 p.		
R. N. Clark. 1999. Gulf of Alaska Invertebrates 100-1000 m (Unpublished)		
R.N. Clark. 1997. Invertebrates of the Aleutian Islands (Unpublished)		

Catch Processing and Collection of Biological Data

Catches were processed by sorting, weighing, and counting all species of fish and invertebrates collected in the trawl. The catch was processed in one of two ways; either by sorting the entire catch into baskets and all baskets weighed individually, or the codend weighed and the predominant species discarded (except for a weighed and sexed random length frequency sample) and the rest of the catch sorted by species and weighed in baskets. Random samples of all species that were designated for biological data collection were set aside after the baskets were weighed. Each species was entered into an on-deck catch form and total weight and numbers for each species were recorded. In cases where individuals were not distinct (i.e., corals, sponges, bryozoans, ascidians, fish eggs) only total weight was recorded. When a large number of individuals from a single species was encountered in a single haul, the total number of individuals was calculated by obtaining a weight and count of 50-200 individuals and applying the average weight to the uncounted weighed sample. In most cases fish length frequency subsamples were the source of the species count and average weight for that tow. All catch data were recorded on paper forms on deck then later hand-entered into an ACCESS® (Microsoft Corp. Version 97) database program.

A sample of 100-150 fish, depending on the size range for the species, were targeted for randomly selected length frequency collections. Random baskets of fish were weighed after the sort and designated as length samples. These fish were then sexed by internal examination of the gonads or by external characters (e.g., claspers for elasmobranchs), and sorted into baskets of males, females, and undetermined sex. Fork length was measured for most fish, except

elasmobranchs which were measured to total length and macrourids to preanal-fin length (PAFL). Species were measured to the nearest centimeter using a board with an attached strip with each centimeter assigned a unique bar code. Fish measurements were recorded on a Juniper LS 600 Polycorder which uses a bar-code reader wand and species-specific numerical codes. After all fish were measured the electronic data were downloaded to the computer and entered into a catch database written in ACCESS®. After length data were examined for accuracy paper copies were printed.

Otoliths (age structures) were taken from selected commercially and ecologically important fish species utilizing a randomly stratified sampling regime based on length. Collections were stratified by subarea (1-6) and within subarea depth strata (200-600 m and 600-1,200 m). Two otolith pairs per cm/sex/depth strata/subarea were collected for each species sampled except for Greenland turbot where three otolith pairs were collected per strata, and shortraker and rougheye rockfish where an attempt was made to collect otoliths from all fish encountered. This sampling scheme provided a collection of 48 pairs of otoliths per centimeter for each species (72 for Greenland turbot) if a collection was completed. At the time of otolith collection, the sex, fork length (cm) or PAFL, and weight (kg) of each fish was also recorded on paper forms which were later hand-entered into the ACCESS® database.

Stomach samples were examined from selected fish species for the AFSC's Resource Ecology and Ecosystem Modeling Program. The primary species targeted for stomach collections were walleye pollock (*Theragra chalcogramma*), sablefish (*Anoplopoma fimbria*), Pacific ocean perch (*Sebastes alutus*), giant grenadier (*Albatrossia pectoralis*), and sleeper sharks (*Somniosus pacificus*). Specimens were chosen at random and only intact stomachs (no-regurgitated) were

chosen for analysis. Stomach contents was weighed and gross determinations were made as to contents. Specimen, haul, and stomach content data was recorded on specimen forms at the time of analysis with only few stomachs retained and preserved for later analysis.

Voucher specimens were collected from species that were rare, of taxonomic interest, or unidentifiable at the time of encounter. Collections were associated with a specimen label that included cruise number, vessel number, haul number, species, voucher number, preservative, and collector's name or initials. Most voucher specimens were preserved in 10% buffered formalin (most fishes and non-calcareous invertebrates) or 95% ethanol for calcareous invertebrates. A few specimens were stored frozen and returned to Seattle, Washington.

Additional biological samples were collected for study per investigator's requests. Table 4 details the investigators, samples collected, and study purposes for requested biological data.

Abundance Estimates

Mean CPUE (catch per unit effort) was calculated using area swept by the trawl net ((distance towed in km) ×(mean net width during the tow)) and the catch estimate (weight or number) for each species. Catch per unit effort was calculated as kilogram per hectare (kg/ha) and number of fish per hectare (no./ha). Population and biomass (metric tons) estimates were calculated using mean CPUE and extrapolating into the area for each strata or all strata combined. Estimation of size composition for each species was derived by expanding the length frequencies from each haul into the total catch for that haul, then into the population for the depth or area stratum by the weighted CPUE.

Table 4. Collection request completed or attempted during the 2004 BSS survey.

Study	Investigator	Collection
Crab collection	Duane Stevenson/Sharon Davis	Frozen collection of approximately 14 specimens of various commercially important crab species were collected for training observers
Northern rockfish genetic samples	Paul Spencer	100 northern rockfish heart tissues samples were collected
Seabird sightings	Shannon Fitzgerald	Seabird interactions with trawling were observed during the 2004 survey
Collection of *Berryteuthis magister*	Tim Essington	Several hundred *Berryteuthis magister* were collected frozen for stomach analysis
Skate egg case collections	Gerald R. Hoff/MLML	All skate egg cases encountered in the trawl were collected and preserved for later study
Light penetration profiles	Stan Kotwicki	No data were collected due to faulty light meter
Hermit crab collections	Erika Acuna/James Orr	Collections were made of most species of hermit crabs for training and verification
Skate vertebra and biological data	Gerald R. Hoff	Collections of vertebra and biological data were made for skate species

RESULTS

Haul, Catch, and Biological Data

During the 2004 BSS survey, 240 tows were completed successfully from approximately 54° N to 61° N at 200 to 1,200 m depth. Eight tows were considered unsatisfactory in meeting survey standards and were recorded but in most cases the location was resampled to obtain a successful tow at that station (see Appendix 1). A single exploratory rockfish tow was completed successfully (Haul 153 Appendix 1) but was outside the survey strata (shallow) and therefore

excluded from analysis. The 231 successful tows were considered as valid BSS survey tows and were used for abundance estimates.

The BSS survey was designed to distribute the trawling effort in proportion to the total area (km^2) of each subarea and strata. A comparison of the planned total effort distribution by strata to that actually achieved (Table 1) shows how well survey goals were reached. In general the deepest depth strata (1,000-1,200 m) were under-represented by the effort due to the difficulty in finding trawlable grounds. Shallow strata often reached the prescribed sampling density where on average, a tow represented 162 km^2 of area.

The Haul Log (Appendix A) details date, exact location, depth of all hauls attempted, net parameters during the tow, environmental conditions, and individual species or species group total haul weights for all hauls attempted.

Bottom temperatures during the survey ranged from 2.1° to 4.3° C and were correlated with bottom depth below approximately 400 m. Between 200 and 400 m, bottom temperature was highly variable and showed no direct relationship with bottom depth (Fig. 4). It is likely that the variability is a result of the protracted period during which samples were collected during the survey. Depths of 200-400 m were sampled over the 2-month period of the survey during which temperatures may have been warming. Approximately 32% of the survey effort was dedicated to the 200-400 m strata, which is the depth range most likely to vary in temperature. Surface temperatures ranged from 6.0° to 9.3° C and both surface and bottom temperatures showed no direct relationship with latitude.

Approximately 152 fish species and 240 invertebrate species were identified during the 2004 BSS survey. The actual number of species encountered may be slightly higher or lower due

to the mistaken grouping of distinct species that appeared similar or by the use of higher taxonomic classifications when the identification was dubious. RACE surveys use both common and scientific names throughout the survey planning and data collection. Likewise, throughout this document, species will be referred to by common or scientific name. Tables 5A and 5B list all species of fish and invertebrates encountered and identified on the 2004 BSS survey alphabetized by common name or scientific name, respectively.

Giant grenadier had the largest estimated biomass encountered on the 2004 BSS survey followed by Pacific ocean perch, and the popeye grenadier (*Coryphaenoides cinereus*). In absolute numbers the most populous fish species encountered was popeye grenadier. Triangle Tanner crab (*Chionoecetes angulatus*) had the largest estimated biomass for invertebrates encountered and the notched brittle star (*Ophiura sarsi*) was the most populous. Table 6 lists all the species encountered during the survey in descending order of total weight, with details on the depth distribution and the frequency of occurrence for each species.

Table 7 (lengths, weights, stomachs) and Table 8 (voucher specimens) detail the species and numbers of all standard biological data collected as well as the percentage of fish measured in comparison to the total encountered for each species.

Population, biomass, and CPUE estimates and variance of the estimates were calculated for every species encountered on the 2004 survey. Table 9 lists the abundance estimates (population and biomass) for every species encountered. The estimates were divided into three groups: a shallow strata (200-600 m), deep strata (600-1,200 m), and all strata combined.

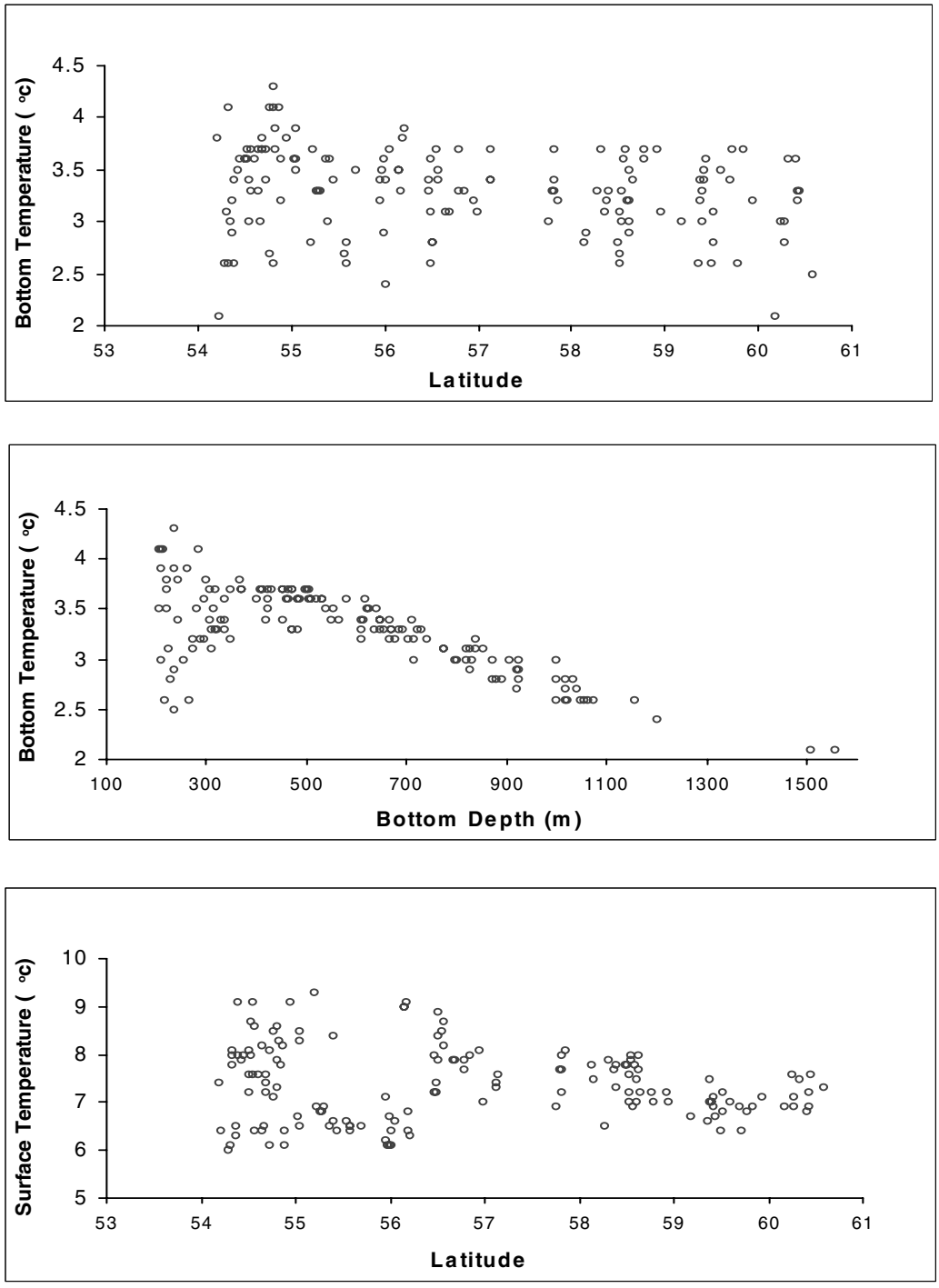


Figure 4. Relationship between temperature and latitude and bottom depth collected from trawl stations during the 2004 BSS survey.

Distribution, Length Frequencies, and Abundance Estimates of Some Commercially and Ecologically Important Species

Abundance estimates, population size estimates, CPUE distribution plots, and estimates of population length frequencies are presented in Tables 10-49 and Figures 5-83 for the 40 most abundant and commercially important fish and invertebrates species. Abundance estimates were calculated for each subarea and each 200 m strata within each subarea, and all subareas and strata combined. CPUE distribution plots represent the abundance of the species for that haul. The order of presentation is by phylogenetic order (Nelson 1994) and does not reflect commercial, ecological, or abundance significance.

The data presented herein represent the single report prepared from the BSS survey conducted in 2004. For additional information or data summaries from this survey please contact:

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Table 5A. List of species alphabetically by common name for all of the fish and invertebrate species encountered on the 2004 BSS survey.

Common name	Species/Taxon
abalone jingle	*Pododesmus cepio*
Alaska eelpout	*Bothrocara pusillum*
Alaska skate	*Bathyraja parmifera*
Alaska skate egg case	*Bathyraja parmifera* egg case
Alaska snailfish	*Careproctus colletti*
Alaska volute snail	*Arctomelon stearnsii*
Alaskan hermit	*Pagurus ochotensis*
Alaskan trophon	*Boreotrophon alaskanus*
Aleutian hermit	*Pagurus aleuticus*
Aleutian moonsnail	*Cryptonatica* (=*Natica*) *aleutica*
Aleutian skate	*Bathyraja aleutica*
Aleutian skate egg case	*Bathyraja aleutica* egg case
Arctic moonsnail	*Natica clausa*
arrowtooth flounder	*Atheresthes stomias*
articulated bamboo coral	*Isidella* species
Atka mackerel	*Pleurogrammus monopterygius*
bamboo coral	*Keratoisis* species
barbed eualid shrimp	*Eualus barbatus*
barrel sponge	*Halichondria panicea*
barreleye	*Macropinna microstoma*
basketstar species	*Gorgonocephalus eucnemis*
Bering skate	*Bathyraja interrupta*
Bering skate egg case	*Bathyraja interrupta* egg case
bigmouth sculpin	*Hemitripterus bolini*
bigmouth sculpin eggs	*Hemitripterus bolini* eggs
bivalve species	Bivalvia species
bivalve species	*Cardita species*
bivalve species	*Cyclocardia* species
black eelpout	*Lycodes diapterus*
blackfaced red snailfish	*Paraliparis ulochir*
blackfin poacher	*Bathyagonus nigripinnis*
blackfin sculpin	*Malacocottus kincaidi*
blackfin snailfish	*Careproctus cypselurus*
blackline snipe eel	*Avocettina infans*
blacklip snailfish	*Elassodiscus tremebundus*
blackmouth eelpout	*Lycodapus fierasfer*
blacknose sculpin	*Icelus canaliculatus*
blacksmelt species	*Bathylagus* species
blackspined sea star	*Lethasterias nanimensis*
blacktail snailfish	*Careproctus melanurus*
blob sculpin	*Psychrolutes phrictus*
blotched snailfish	*Crystallichthys cyclospilus*
blue mussel	*Mytilus edulis*
boreopacific armhook squid	*Gonatopsis borealis*
Bowers Bank snailfish	*Careproctus bowersianus*
bristlemouth species	*Cyclothone* species
brittle star species	*Stegophiura ponderosa*
brittlestar species	Ophiuroid species
broadfin snailfish	*Paraliparis pectoralis*

Table 5A. Continued.

Common name	Species/Taxon
broadfin thornyhead	*Sebastolobus macrochir*
brokenline lampfish	*Lampanyctus jordani*
brownscaled sea cucumber	*Psolus fabricii*
California headlightfish	*Diaphus theta*
California lamp shell species	*Laqueus californianus*
caridid shrimp species	Caridea species
chevron-tentacled anemone	*Cribrinopsis fernaldi*
chiton species	*Placiphorella atlantica*
chiton species	Polyplacophora species
chrysaora jellyfish	*Chrysaora* species
chum salmon	*Oncorhynchus keta*
clawed armhook squid	*Gonatus onyx*
clay pipe sponge	*Aphrocallistes vastus*
cloud sponge	*Rhabdocalyptus* species
comic snailfish	*Careproctus* species H
commander skate	*Bathyraja lindbergi*
common brachiopod species	*Terebratalia transversa*
common mud star	*Ctenodiscus crispatus*
compound ascidian species	Ascidacea
coral eelpout	*Puzanovia rubra*
coral species	*Amphilaphis* species
crab species	*Brachyura species*
crested bigscale	*Poromitra crassiceps*
crested sea star	*Lophaster furcilliger*
crimson pasiphaeid shrimp	*Pasiphaea tarda*
crinoid species	Crinoidea
crinoid species	*Florometra* species
darkfin sculpin	*Malacocottus zonurus*
deepsea skate	*Bathyraja abyssicola*
deepsea sole	*Embassichthys bathybius*
depressed scale worm	*Eunoe depressa*
Dominator snailfish	*Careproctus* species cf. *gilberti*
Dover sole	*Microstomus pacificus*
dragon poacher	*Percis japonicus*
dreamer species	*Oneirodes* species
dreamer species	*Oneirodes thompsoni*
dusky rockfish	*Sebastes variabilis*
eared barnacle	*Scalpellum cornutum*
eastern Pacific bobtail squid	*Rossia pacifica*
ebony eelpout	*Lycodes concolor*
eelpout species	*Bothrocara* species
eelpout species	*Lycenchelys* species
eelpout species	*Lycodapus* species
emarginate snailfish	*Careproctus furcellus*
empty bivalve shells	Bivalvia
empty gastropod shells	Gastropoda
eulachon	*Thaleichthys pacificus*
evening sun sea star	*Solaster paxillatus*
fiery armhook squid	*Gonatus pyros*
fish eggs	Osteichthyes eggs

Table 5A. Continued.

Common name	Species/Taxon
flabby sculpin	*Zesticelus profundorum*
flapjack devilfish	*Opisthoteuthis californiana*
flashlightfish species	*Protomyctophum* species
flathead sole	*Hippoglossoides elassodon*
flatworm species	Platyhelminthes
fuzzy hermit crab	*Pagurus trigonocheirus*
garnet lampfish	*Stenobrachius nannochir*
giant barnacle	*Balanus evermanni*
giant grenadier	*Albatrossia pectoralis*
giant octopus	*Octopus dofleini*
glass sponge species	Hexactinellida
golden king crab	*Lithodes aequispina*
gorgonian coral species	Gorgonacea
graceful decorator crab	*Oregonia gracilis*
gray starsnout	*Bathyagonus alascanus*
great sculpin	*Myoxocephalus polyacanthocephalus*
green sea urchin	*Strongylocentrotus droebachiensis*
Greenland cockle	*Serripes groenlandicus*
Greenland shrimp	*Eualus macilentus*
Greenland turbot	*Reinhardtius hippoglossoides*
grenadier species	*Coryphaenoides* species
grooved sea star	*Crossaster borealis*
grooved Tanner crab	*Chionoecetes tanneri*
hairy triton snail eggs	*Fusitriton oregonensis* eggs
hairy-lure dreamer	*Oneirodes bulbosus*
harlequin rockfish	*Sebastes variegatus*
heart urchin	*Brisaster latifrons*
hermit crab species	*Pagurus cornutus*
hermit crab species	*Pagurus* species
highsnout bigscale	*Melamphaes lugubris*
horsehair crab	*Erimacrus isenbeckii*
humpback snailfish	*Elassodiscus caudatus*
hydroid species	Hydrozoa
isopod species	Isopoda
jellyfish species	*Aequorea* species
jellyfish species	*Aurelia aurita*
jellyfish species	*Aurelia labiata*
jellyfish species	*Aurelia* species
jellyfish species	*Chrysaora melanaster*
jellyfish species	*Periphylla periphylla*
jellyfish species	Scyphozoa
Jordan's snailfish	*Allocareproctus jordani*
Kamchatka coral	*Paragorgia arborea*
Kamchatka eelpout	*Lycenchelys camchatica*
Kamchatka flounder	*Atheresthes evermanni*
keeled aforia	*Aforia circinata*
king crab species	*Lithodes* species
king crab species	*Paralomis multispina*
king crab species	*Paralomis verrilli*
knobbyhand hermit	*Pagurus confragosus*

Table 5A. Continued.

Common name	Species/Taxon
kuro argid shrimp	*Argis lar*
ladder whelk	*Buccinum scalariforme*
lampfish species	*Lampanyctus* species
lampfish species	*Stenobrachius* species
lanternfish species	Myctophidae
left-hand whelk	*Pyrulofusus harpa*
lion's mane jellyfish	*Cyanea capillata*
longfin dragonfish	*Tactostoma macropus*
longfin grenadier	*Coryphaenoides longifilis*
Longhorned decorator crab	*Chorilia longipes*
longnose lancetfish	*Alepisaurus ferox*
longnose snailfish	*Rhinoliparis barbulifer*
longsnout prickleback	*Lumpenella longirostris*
lyre whelk	*Neptunea lyrata*
magistrate armhook squid	*Berryteuthis magister*
manefish	*Caristius macropus*
moonsnail species	Naticidae
mottled anemone	*Urticina crassicornis*
mud skate	*Bathyraja taranetzi*
mud skate egg case	*Bathyraja taranetzi* egg case
mussel species	*Yoldia* species
mysid species	Mysidacea
northern flashlightfish	*Protomyctophum thompsoni*
northern horsemussel	*Modiolus modiolus*
northern lampfish	*Stenobrachius leucopsarus*
northern pearleye	*Benthalbella dentata*
northern rock sole	*Lepidopsetta polyxystra*
northern rockfish	*Sebastes polyspinis*
northern sea star	*Dipsacaster borealis*
northern shrimp	*Pandalus borealis*
northern smoothtongue	*Leuroglossus schmidti*
northern sun sea star	*Solaster endeca*
notched brittlestar	*Ophiura sarsi*
oblique whelk	*Colus aphelus*
octocoral	Alcyonacea
octopus species	*Benthoctopus* species
octopus species	*Graneledone boreopacifica*
octopus species	*Japatella diaphana*
octopus species	*Octopus* species 1
octopus species	*Octopus* species
Okhotsk skate	*Bathyraja violacea*
orange-pink sea urchin	*Allocentrotus fragilis*
Oregon triton	*Fusitriton oregonensis*
oxeye oreo	*Allocyttus folletti*
Pacific ambereye	*Hymenodora frontalis*
Pacific blacksmelt	*Bathylagus pacificus*
Pacific bobtail squid eggs	*Rossia pacifica* eggs
Pacific cod	*Gadus macrocephalus*
Pacific flatnose	*Antimora microlepis*
Pacific glass shrimp	*Pasiphaea pacifica*

Table 5A. Continued.

Common name	Species/Taxon
Pacific grenadier	*Coryphaenoides acrolepis*
Pacific halibut	*Hippoglossus stenolepis*
Pacific herring	*Clupea pallasi*
Pacific lamprey	*Lampetra tridentata*
Pacific lyre crab	*Hyas lyratus*
Pacific ocean perch	*Sebastes alutus*
Pacific sleeper shark	*Somniosus pacificus*
Pacific viperfish	*Chauliodus macouni*
Parma sand dollar	*Echinarachnius parma*
peanut worm species	Sipuncula
pincushion sea star	*Diplopteraster multipes*
pinpoint lampfish	*Nannobrachium regale*
polychaete worm species	Polychaeta
popeye blacksmelt	*Bathylagus ochotensis*
popeye grenadier	*Coryphaenoides cinereus*
Pribilof whelk	*Neptunea pribiloffensis*
proboscis snailfish	*Careproctus simis*
prowfish	*Zaprora silenus*
purple hermit	*Elassochirus cavimanus*
pygmy snailfish	*Liparis cus nanus*
red bat star	*Ceramaster japonicus*
red snailfish	*Paraliparis dactylosus*
redbanded rockfish	*Sebastes babcocki*
reticulate anemone	*Actinauge verrillii*
rex sole	*Glyptocephalus zachirus*
ridged crangon shrimp	*Crangon dalli*
robust blacksmelt	*Bathylagus milleri*
robust clubhook squid	*Moroteuthis robusta*
rockfish species	*Sebastes species*
rose sea star	*Crossaster papposus*
rough purple sea anemone	*Paractinostola faeculenta*
rougheye rockfish	*Sebastes aleutianus*
roughskin sculpin	*Rastrinus scutiger*
roughtail skate	*Bathyraja trachura*
roughtail skate egg case	*Bathyraja trachura* egg case
sablefish	*Anoplopoma fimbria*
salmon snailfish	*Careproctus rastrinus*
salp species	Thaliacea
sawback poacher	*Leptagonus frenatus*
scarlet king crab	*Lithodes couesi*
scarlet sea star	*Pseudarchaster parelii*
sea anemone	Actiniaria
sea anemone	Actinostolidae
sea anemone species	*Stomphia* species
sea anemone species	*Urticina lofotensis*
sea cucumber species	*Bathyplotes* species
sea cucumber species	Holothuroidea
sea cucumber species	*Pannychia moseleyi*
sea cucumber species	*Parastichopus leucothele*
sea cucumber species	*Parastichopus* species

Table 5A. Continued.

Common name	Species/Taxon
sea cucumber species	*Pseudostichopus* species
sea cucumber species	*Psolus species*
sea cucumber species	*Scotoplanes theeli*
sea leech species	*Carcinobdella* species
sea mouse species	*Aphrodita* species
sea slug species	*Nudibranchia* species
sea slug species	*Tritonia* species
sea spider unident.	Pycnogonida
sea star species	*Brisingella exilis*
sea star species	*Crossaster* species
sea star species	*Diplopteraster* species
sea star species	*Henricia asthenactis*
sea star species	*Henricia* species
sea star species	*Heterozonias alternatus*
sea star species	*Hippasteria* species
sea star species	*Mediaster* species
sea star species	*Myxoderma sacculatum*
sea star species	*Nearchaster* species
sea star species	*Nearchaster variabilis*
sea star species	*Pseudarchaster alascensis*
sea star species	*Pteraster militaris*
sea star species	*Pteraster* species
sea star species	*Pteraster tesselatus*
sea star species	*Solaster* species A
sea star species	*Solaster* species B
sea star species	*Stephanasterias albula*
sea star species	*Tarsaster alaskanus*
sea star species	*Thrissacanthias penicillatus*
sea star species	*Zoraster evermanni*
sea urchin species	*Strongylocentrotus* species
sea whip species	*Halipteris willemoesi*
sea whip species	Virgularidae
searcher	*Bathymaster signatus*
serpent sea star	*Asteronyx loveni*
shining tubeshoulder	*Sagamichthys abei*
shortfin eelpout	*Lycodes brevipes*
shortraker rockfish	*Sebastes borealis*
shortscale eualid shrimp	*Eualus suckleyi*
shortspine thornyhead	*Sebastolobus alascanus*
shrimp species	*Argis* species
shrimp species	*Crangon* species
shrimp species	*Eualus* species
shrimp species	*Gnathophausia ingens*
shrimp species	*Pandalopsis aleutica*
shrimp species	*Pandalopsis ampla*
shrimp species	Penaeidea
shrimp species	*Sergestes* species
sidestripe shrimp	*Pandalopsis dispar*
skate egg case species	*Bathyraja* species egg case
skate species	*Bathyraja* species

Table 5A. Continued.

Common name	Species/Taxon
skinny twoline eelpout	*Bothrocara* species cf. *brunneum*
slender codling	*Halargyreus johnsonii*
slender fangjaw	*Sigmops gracilis*
slickhead	Alepocephalidae
slim snailfish	*Careproctus ectenes*
slim snailfish	*Rhinoliparis attenuatus*
smalldisk snailfish	*Careproctus gilberti*
smooth lumpsucker	*Aptocyclus ventricosus*
smoothskin octopus	*Benthoctopus leioderma*
snail eggs	Gastropoda eggs
snail eggs	*Buccinum* species eggs
snail species	*Ancistrolepis eucosmius*
snail species	*Boreoscala greenlandica*
snail species	*Boreotrophon pacificus*
snail species	*Colus jordani*
snail species	*Neomenia* species
snail species	*Neptunea* species
snailfish species	*Careproctus* species
snailfish species	*Elassodiscus* species
snailfish species	Liparidinae
snailfish species	*Paraliparis* species
snailfish species	*Rhinoliparis* species
snakehead eelpout	*Lycenchelys crotalinus*
snipe eel species	Nemichthyidae
snow crab	*Chionoecetes opilio*
soft coral species	*Anthomastus* species A
soft coral species	*Antipathes* species
soft coral species	*Swiftia* species
soft green sponge	Porifera
softskin slickhead	*Rouleina attrita*
spectacled sculpin	*Triglops scepticus*
spiny lebbeid shrimp	*Lebbeus groenlandicus*
spiny red sea star	*Hippasteria spinosa*
spinyhead sculpin	*Dasycottus setiger*
spinyridge shrimp	*Notostomus japonicus*
splendid hermit	*Labidochirus splendescens*
sponge hermit	*Pagurus brandti*
sponge species	Porifera
squid species	*Chiroteuthis calyx*
squid species	Cranchiidae
squid species	*Galiteuthis phyllura*
squid species	Gonatidae species
squid species	*Gonatus madokai*
squid species	*Gonatus* species
squid species	*Taonius pavo*
squid species	Teuthoidea
squid species eggs	Teuthida species eggs
squid/octopus species eggs	Cephalopoda species eggs
stone crab species	Lithodidae species
sweet sea potato	*Molpadia intermedia*

Table 5A. Continued.

Common name	Species/Taxon
swellhead snailfish	*Paraliparis cephalus*
Swift's sea star	*Gephyreaster swifti*
swimming anemone	*Stomphia coccinea*
swollen whelk	*Buccinum oedematum*
tadpole snailfish	*Nectoliparis pelagicus*
Tanner crab	*Chionoecetes bairdi*
tentacle-shedding anemone	*Liponema brevicornis*
thick-ribbed whelk	*Colus spitzbergensis*
thin-ribbed whelk	*Colus herendeenii*
thorny sculpin	*Icelus spiniger*
tree sponge	*Mycale loveni*
triangle Tanner crab	*Chionoecetes angulatus*
tube worm species	Polychaeta
tulip whelk	*Volutopsius middendorffii*
tunicate species	Ascidian
twoline eelpout	*Bothrocara brunneum*
twoline eelpout species	*Bothrocara* cf. *brunneum* group
twospine crangon shrimp	*Crangon communis*
ubiquitous brittle star	*Ophiopholis aculeata*
vampire squid species	*Vampyroteuthis infernalis*
walleye pollock	*Theragra chalcogramma*
warped whelk	*Pyrulofusus deformis*
whelk eggs	*Pyrulofusus* eggs
whelk eggs	*Volutopsius* eggs
whelk species	*Beringius frielei*
whelk species	*Buccinum species*
whelk species	*Buccinum species A*
whelk species	*Neptunea insularis*
whelk species	*Plicifusus kroyeri*
whelk species	*Pyrulofusus melonis*
whelk species	*Sulcosinus taphrius*
whelk species eggs	Beringius eggs
whelk species eggs	*Neptunea* eggs
whiteblotched skate	*Bathyraja maculata*
whitebrow skate	*Bathyraja minispinosa*
whitebrow skate egg case	*Bathyraja minispinosa* egg case
whitescaled sea cucumber	*Psolus squamatus*
wide-eye sculpin	*Icelus euryops*
worm species	Polychaeta
worm tube species	Polychaete tubes
yellow green papillate sponge	*Halichondria* cf. *sitiens*
yellow Irish lord	*Hemilepidotus jordani*
yellowleg pandalid	*Pandalus tridens*

Table 5B. List of species alphabetically by scientific name for all of the fish and invertebrate species encountered on the 2004 BSS survey.

Species/Taxon	Common name
Actinauge verrillii	reticulate anemone
Actiniaria	sea anemone
Actinostolidae	sea anemone
Aequorea species	jellyfish species
Aforia circinata	keeled aforia
Albatrossia pectoralis	giant grenadier
Alcyonacea	octocoral
Alepisaurus ferox	longnose lancetfish
Alepocephalidae	slickhead
Allocareproctus jordani	Jordan's snailfish
Allocentrotus fragilis	orange-pink sea urchin
Allocyttus folletti	oxeye oreo
Amphilaphis species	coral species
Ancistrolepis eucosmius	snail species
Anoplopoma fimbria	sablefish
Anthomastus species A	soft coral species
Antimora microlepis	Pacific flatnose
Antipathes species	soft coral species
Aphrocallistes vastus	clay pipe sponge
Aphrodita species	sea mouse species
Aptocyclus ventricosus	smooth lumpsucker
Arctomelon stearnsii	Alaska volute snail
Argis lar	kuro argid shrimp
Argis species	shrimp species
Ascidacea	compound ascidian species
Ascidian	tunicate species
Asteronyx loveni	serpent sea star
Atheresthes evermanni	Kamchatka flounder
Atheresthes stomias	arrowtooth flounder
Aurelia aurita	jellyfish species
Aurelia labiata	jellyfish species
Aurelia species	jellyfish species
Avocettina infans	blackline snipe eel
Balanus evermanni	giant barnacle
Bathyagonus alascanus	gray starsnout
Bathyagonus nigripinnis	blackfin poacher
Bathylagus milleri	robust blacksmelt
Bathylagus ochotensis	popeye blacksmelt
Bathylagus pacificus	Pacific blacksmelt
Bathylagus species	blacksmelt species
Bathymaster signatus	searcher
Bathyplotes species	sea cucumber species
Bathyraja abyssicola	deepsea skate
Bathyraja aleutica	Aleutian skate
Bathyraja aleutica egg case	Aleutian skate egg case
Bathyraja interrupta	Bering skate
Bathyraja interrupta egg case	Bering skate egg case
Bathyraja lindbergi	commander skate
Bathyraja maculata	whiteblotched skate

Table 5B. Continued.

Species/Taxon	Common name
Bathyraja minispinosa	whitebrow skate
Bathyraja minispinosa egg case	whitebrow skate egg case
Bathyraja parmifera	Alaska skate
Bathyraja parmifera egg case	Alaska skate egg case
Bathyraja species	skate species
Bathyraja species egg case	skate egg case species
Bathyraja taranetzi	mud skate
Bathyraja taranetzi egg case	mud skate egg case
Bathyraja trachura	roughtail skate
Bathyraja trachura egg case	roughtail skate egg case
Bathyraja violacea	Okhotsk skate
Benthalbella dentata	northern pearleye
Benthoctopus leioderma	smoothskin octopus
Benthoctopus species	octopus species
Beringius eggs	whelk species eggs
Beringius frielei	whelk species
Berryteuthis magister	magistrate armhook squid
Bivalvia	empty bivalve shells
Bivalvia species	bivalve species
Boreoscala greenlandica	snail species
Boreotrophon pacificus	snail species
Boreotrophon alaskanus	Alaskan trophon
Bothrocara brunneum	twoline eelpout
Bothrocara cf. *brunneum* group	twoline eelpout species
Bothrocara pusillum	Alaska eelpout
Bothrocara species	eelpout species
Bothrocara species cf. *brunneum*	skinny twoline eelpout
Brachyura species	crab species
Brisaster latifrons	heart urchin
Brisingella exilis	sea star species
Buccinum oedematum	swollen whelk
Buccinum scalariforme	ladder whelk
Buccinum species	whelk species
Buccinum species A	whelk species
Buccinum species eggs	snail eggs
Carcinobdella species	sea leech species
Cardita species	bivalve species
Careproctus bowersianus	Bowers Bank snailfish
Careproctus colletti	Alaska snailfish
Careproctus cypselurus	blackfin snailfish
Careproctus ectenes	slim snailfish
Careproctus furcellus	emarginate snailfish
Careproctus gilberti	smalldisk snailfish
Careproctus melanurus	blacktail snailfish
Careproctus rastrinus	salmon snailfish
Careproctus simis	proboscis snailfish
Careproctus species	snailfish species
Careproctus species cf. *gilberti*	Dominator snailfish
Careproctus species H	comic snailfish
Caridea species	caridid shrimp species

Table 5B. Continued.

Species/Taxon	Common name
Caristius macropus	manefish
Cephalopoda species eggs	squid/octopus species eggs
Ceramaster japonicus	red bat star
Chauliodus macouni	Pacific viperfish
Chionoecetes angulatus	triangle Tanner crab
Chionoecetes bairdi	Tanner crab
Chionoecetes opilio	snow crab
Chionoecetes tanneri	grooved Tanner crab
Chiroteuthis calyx	squid species
Chorilia longipes	Longhorned decorator crab
Chrysaora melanaster	jellyfish species
Chrysaora species	chrysaora jellyfish
Clupea pallasi	Pacific herring
Colus aphelus	oblique whelk
Colus herendeenii	thin-ribbed whelk
Colus jordani	snail species
Colus spitzbergensis	thick-ribbed whelk
Coryphaenoides acrolepis	Pacific grenadier
Coryphaenoides cinereus	popeye grenadier
Coryphaenoides longifilis	longfin grenadier
Coryphaenoides species	grenadier species
Cranchiidae	squid species
Crangon communis	twospine crangon shrimp
Crangon dalli	ridged crangon shrimp
Crangon species	shrimp species
Cribrinopsis fernaldi	chevron-tentacled anemone
Crinoidea	crinoid species
Crossaster borealis	grooved sea star
Crossaster papposus	rose sea star
Crossaster species	sea star species
Cryptonatica (=*Natica*) *aleutica*	Aleutian moonsnail
Crystallichthys cyclospilus	blotched snailfish
Ctenodiscus crispatus	common mud star
Cyanea capillata	lion's mane jellyfish
Cyclocardia species	bivalve species
Cyclothone species	bristlemouth species
Dasycottus setiger	spinyhead sculpin
Diaphus theta	California headlightfish
Diplopteraster multipes	pincushion sea star
Diplopteraster species	sea star species
Dipsacaster borealis	northern sea star
Echinarachnius parma	Parma sand dollar
Elassochirus cavimanus	purple hermit
Elassodiscus caudatus	humpback snailfish
Elassodiscus species	snailfish species
Elassodiscus tremebundus	blacklip snailfish
Embassichthys bathybius	deepsea sole
Erimacrus isenbeckii	horsehair crab
Eualus barbatus	barbed eualid shrimp
Eualus macilentus	Greenland shrimp

Table 5B. Continued.

Species/Taxon	Common name
Eualus species	shrimp species
Eualus suckleyi	shortscale eualid shrimp
Eunoe depressa	depressed scale worm
Florometra species	crinoid species
Fusitriton oregonensis	Oregon triton
Fusitriton oregonensis eggs	hairy triton snail eggs
Gadus macrocephalus	Pacific cod
Galiteuthis phyllura	squid species
Gastropoda eggs	snail eggs
Gastropoda	empty gastropod shells
Gephyreaster swifti	Swift's sea star
Glyptocephalus zachirus	rex sole
Gnathophausia ingens	shrimp species
Gonatidae species	squid species
Gonatopsis borealis	boreopacific armhook squid
Gonatus madokai	squid species
Gonatus onyx	clawed armhook squid
Gonatus pyros	fiery armhook squid
Gonatus species	squid species
Gorgonacea	gorgonian coral species
Gorgonocephalus eucnemis	basketstar species
Graneledone boreopacifica	octopus species
Halargyreus johnsonii	slender codling
Halichondria cf. *sitiens*	yellow green papillate sponge
Halichondria panicea	barrel sponge
Halipteris willemoesi	sea whip species
Hemilepidotus jordani	yellow Irish lord
Hemitripterus bolini	bigmouth sculpin
Hemitripterus bolini eggs	bigmouth sculpin eggs
Henricia asthenactis	sea star species
Henricia species	sea star species
Heterozonias alternatus	sea star species
Hexactinellida	glass sponge species
Hippasteria species	sea star species
Hippasteria spinosa	spiny red sea star
Hippoglossoides elassodon	flathead sole
Hippoglossus stenolepis	Pacific halibut
Holothuroidea	sea cucumber species
Hyas lyratus	Pacific lyre crab
Hydrozoa	hydroid species
Hymenodora frontalis	Pacific ambereye
Icelus canaliculatus	blacknose sculpin
Icelus euryops	wide-eye sculpin
Icelus spiniger	thorny sculpin
Isidella species	articulated bamboo coral
Isopoda	isopod species
Japatella diaphana	octopus species
Keratoisis species	bamboo coral
Labidochirus splendescens	splendid hermit
Lampanyctus jordani	brokenline lampfish

Table 5B. Continued.

Species/Taxon	Common name
Lampanyctus species	lampfish species
Lampetra tridentata	Pacific lamprey
Laqueus californianus	California lamp shell species
Lebbeus groenlandicus	spiny lebbeid shrimp
Lepidopsetta polyxystra	northern rock sole
Leptagonus frenatus	sawback poacher
Lethasterias nanimensis	blackspined sea star
Leuroglossus schmidti	northern smoothtongue
Liparidinae	snailfish species
Liparíscus nanus	pygmy snailfish
Liponema brevicornis	tentacle-shedding anemone
Lithodes aequispina	golden king crab
Lithodes couesi	scarlet king crab
Lithodes species	king crab species
Lithodidae species	stone crab species
Lophaster furcilliger	crested sea star
Lumpenella longirostris	longsnout prickleback
Lycenchelys camchatica	Kamchatka eelpout
Lycenchelys crotalinus	snakehead eelpout
Lycenchelys species	eelpout species
Lycodapus fierasfer	blackmouth eelpout
Lycodapus species	eelpout species
Lycodes brevipes	shortfin eelpout
Lycodes concolor	ebony eelpout
Lycodes diapterus	black eelpout
Macropinna microstoma	barreleye
Malacocottus kincaidi	blackfin sculpin
Malacocottus zonurus	darkfin sculpin
Mediaster species	sea star species
Melamphaes lugubris	highsnout bigscale
Microstomus pacificus	Dover sole
Modiolus modiolus	northern horsemussel
Molpadia intermedia	sweet sea potato
Moroteuthis robusta	robust clubhook squid
Mycale loveni	tree sponge
Myctophidae	lanternfish species
Myoxocephalus polyacanthocephalus	great sculpin
Mysidacea	mysid species
Mytilus edulis	blue mussel
Myxoderma sacculatum	sea star species
Nannobrachium regale	pinpoint lampfish
Natica clausa	Arctic moonsnail
Naticidae	moonsnail species
Nearchaster species	sea star species
Nearchaster variabilis	sea star species
Nectoliparis pelagicus	tadpole snailfish
Nemichthyidae	snipe eel species
Neomenia species	snail species
Neptunea eggs	whelk species eggs
Neptunea insularis	whelk species

Table 5B. Continued.

Species/Taxon	Common name
Neptunea lyrata	lyre whelk
Neptunea pribiloffensis	Pribilof whelk
Neptunea species	snail species
Notostomus japonicus	spinyridge shrimp
Nudibranchia species	sea slug species
Octopus dofleini	giant octopus
Octopus species 1	octopus species
Octopus species	octopus species
Oncorhynchus keta	chum salmon
Oneirodes bulbosus	hairy-lure dreamer
Oneirodes species	dreamer species
Oneirodes thompsoni	dreamer species
Ophiopholis aculeata	ubiquitous brittle star
Ophiura sarsi	notched brittlestar
Ophiuroid species	brittlestar species
Opisthoteuthis californiana	flapjack devilfish
Oregonia gracilis	graceful decorator crab
Osteichthyes eggs	fish eggs
Pagurus aleuticus	Aleutian hermit
Pagurus brandti	sponge hermit
Pagurus confragosus	knobbyhand hermit
Pagurus cornutus	hermit crab species
Pagurus ochotensis	Alaskan hermit
Pagurus species	hermit crab species
Pagurus trigonocheirus	fuzzy hermit crab
Pandalopsis aleutica	shrimp species
Pandalopsis ampla	shrimp species
Pandalopsis dispar	sidestripe shrimp
Pandalus borealis	northern shrimp
Pandalus tridens	yellowleg pandalid
Pannychia moseleyi	sea cucumber species
Paractinostola faeculenta	rough purple sea anemone
Paragorgia arborea	Kamchatka coral
Paraliparis cephalus	swellhead snailfish
Paraliparis dactylosus	red snailfish
Paraliparis pectoralis	broadfin snailfish
Paraliparis species	snailfish species
Paraliparis ulochir	blackfaced red snailfish
Paralomis multispina	king crab species
Paralomis verrilli	king crab species
Parastichopus leucothele	sea cucumber species
Parastichopus species	sea cucumber species
Pasiphaea pacifica	Pacific glass shrimp
Pasiphaea tarda	crimson pasiphaeid shrimp
Penaeidea	shrimp species
Percis japonicus	dragon poacher
Periphylla periphylla	jellyfish species
Placiphorella atlantica	chiton species
Platyhelminthes	flatworm species
Pleurogrammus monopterygius	Atka mackerel

Table 5B. Continued.

Species/Taxon	Common name
Plicifusus kroyeri	whelk species
Pododesmus cepio	abalone jingle
Polychaeta	polychaete worm species
Polychaeta	worm species
Polychaeta	tube worm species
Polychaete tubes	worm tube species
Polyplacophora species	chiton species
Porifera	sponge species
Porifera	soft green sponge
Poromitra crassiceps	crested bigscale
Protomyctophum species	flashlightfish species
Protomyctophum thompsoni	northern flashlightfish
Pseudarchaster alascensis	sea star species
Pseudarchaster parelii	scarlet sea star
Pseudostichopus species	sea cucumber species
Psolus fabricii	brownscaled sea cucumber
Psolus species	sea cucumber species
Psolus squamatus	whitescaled sea cucumber
Psychrolutes phrictus	blob sculpin
Pteraster militaris	sea star species
Pteraster species	sea star species
Pteraster tesselatus	sea star species
Puzanovia rubra	coral eelpout
Pycnogonida	sea spider unident.
Pyrulofusus eggs	whelk eggs
Pyrulofusus deformis	warped whelk
Pyrulofusus harpa	left-hand whelk
Pyrulofusus melonis	whelk species
Rastrinus scutiger	roughskin sculpin
Reinhardtius hippoglossoides	Greenland turbot
Rhabdocalyptus species	cloud sponge
Rhinoliparis attenuatus	slim snailfish
Rhinoliparis barbulifer	longnose snailfish
Rhinoliparis species	snailfish species
Rossia pacifica	eastern Pacific bobtail squid
Rossia pacifica eggs	Pacific bobtail squid eggs
Rouleina attrita	softskin slickhead
Sagamichthys abei	shining tubeshoulder
Scalpellum cornutum	eared barnacle
Scotoplanes theeli	sea cucumber species
Scyphozoa	jellyfish species
Sebastes aleutianus	rougheye rockfish
Sebastes alutus	Pacific ocean perch
Sebastes babcocki	redbanded rockfish
Sebastes borealis	shortraker rockfish
Sebastes polyspinis	northern rockfish
Sebastes species	rockfish species
Sebastes variabilis	dusky rockfish
Sebastes variegatus	harlequin rockfish
Sebastolobus alascanus	shortspine thornyhead

Table 5B. Continued.

Species/Taxon	Common name
Sebastolobus macrochir	broadfin thornyhead
Sergestes species	shrimp species
Serripes groenlandicus	Greenland cockle
Sigmops gracilis	slender fangjaw
Sipuncula	peanut worm species
Solaster endeca	northern sun sea star
Solaster paxillatus	evening sun sea star
Solaster species A	sea star species
Solaster species B	sea star species
Somniosus pacificus	Pacific sleeper shark
Stegophiura ponderosa	brittle star species
Stenobrachius leucopsarus	northern lampfish
Stenobrachius nannochir	garnet lampfish
Stenobrachius species	lampfish species
Stephanasterias albula	sea star species
Stomphia coccinea	swimming anemone
Stomphia species	sea anemone species
Strongylocentrotus droebachiensis	green sea urchin
Strongylocentrotus species	sea urchin species
Sulcosinus taphrius	whelk species
Swiftia species	soft coral species
Tactostoma macropus	longfin dragonfish
Taonius pavo	squid species
Tarsaster alaskanus	sea star species
Terebratalia transversa	common brachiopod species
Teuthida species eggs	squid species eggs
Teuthoidea	squid species
Thaleichthys pacificus	eulachon
Thaliacea	salp species
Theragra chalcogramma	walleye pollock
Thrissacanthias penicillatus	sea star species
Triglops scepticus	spectacled sculpin
Tritonia species	sea slug species
Urticina crassicornis	mottled anemone
Urticina lofotensis	sea anemone species
Vampyroteuthis infernalis	vampire squid species
Virgularidae	sea whip species
Volutopsius eggs	whelk eggs
Volutopsius middendorffii	tulip whelk
Yoldia species	mussel species
Zaprora silenus	prowfish
Zesticelus profundorum	flabby sculpin
Zoraster evermanni	sea star species

Table 6. Total weight, number, depth range, mean bottom depth, and frequency of occurrence for all species collected during the 2004 BSS survey. Species are listed in descending order by total catch weight.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Albatrossia pectoralis	154,742.35	41,962	321-1,169	676	154
Sebastes alutus	27,560.84	31,594	200-721	335	95
Theragra chalcogramma	15,593.26	14,996	202-944	360	111
Atheresthes stomias	14,164.79	13,758	200-1,106	380	133
Coryphaenoides cinereus	10,730.46	65,610	321-1,169	776	105
Reinhardtius hippoglossoides	9,806.87	2,003	208-1,169	589	156
Bothrocara cf. *brunneum* group	6,191.25	7906	341-1,169	677	120
Hippoglossoides elassodon	5,967.33	13,335	202-651	354	113
Sebastolobus alascanus	5,641.87	10,066	215-1,169	591	147
Atheresthes evermanni	4,407.29	2,964	200-1,169	505	188
Bathyraja aleutica	3,985.64	1,471	200-1,169	520	167
Glyptocephalus zachirus	3,453.91	6,099	202-685	355	116
Anoplopoma fimbria	3,428.14	1,261	248-1,169	602	128
Parastichopus leucothele	2,809.65	23,289	308-1,039	621	60
Gadus macrocephalus	1,460.52	509	200-374	263	56
Chionoecetes angulatus	1,453.03	18,221	362-1,169	740	106
Hippoglossus stenolepis	1,345.85	117	200-643	347	53
Ophiura sarsi	1,002.18	1,554,454	498-1,106	747	23
Bathyraja parmifera	945.89	150	200-585	257	28
Bathyraja lindbergi	933.96	608	402-1,152	666	67
Bathyraja maculata	873.17	225	200-1,169	403	59
Coryphaenoides acrolepis	837.51	3,314	615-1,169	928	48
Chionoecetes tanneri	829.22	2,234	208-1,152	646	93
Liponema brevicornis	801.96	7,163	200-1,039	428	139
Ceramaster japonicus	778.15	8,646	202-1,104	486	144
Polychaete tubes	631.27		898-1,118	1,015	4
Sebastes borealis	616.45	268	231-820	449	41
Paractinostola faeculenta	601.52	2,715	249-1,138	625	32
Lycodes concolor	585.01	637	249-1,169	602	70
Bathyraja interrupta	545.35	478	202-1,011	393	101
Somniosus pacificus	539.49	28	240-1,057	611	23
Aphrocallistes vastus	511.77		203-1,169	606	64
Neptunea pribiloffensis	508.09	6,706	202-1,169	590	152
Zaprora silenus	499.59	83	200-283	233	9
Porifera	474.11		200-1,152	456	79
Berryteuthis magister	471.84	1,353	203-1,138	506	137
Malacocottus zonurus	471.52	4,070	200-1,036	390	115
Pannychia moseleyi	457.09	14,868	818-1,014	962	10
Bathyraja minispinosa	437.16	311	206-1,169	564	97
Bathyraja trachura	428.26	212	624-1,138	893	47
Brisaster latifrons	378.37	11,628	279-1,104	516	27
Psychrolutes phrictus	353.16	138	633-1,169	953	34
Hemitripterus bolini	333.49	116	200-621	355	63
Bathyraja species egg case	301.28	7,426	206-1,152	553	93
Dipsacaster borealis	281.41	1,493	215-1,014	440	72

Table 6. Continued.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Lithodes aequispina	279.34	321	215-1,014	499	56
Crossaster borealis	261.77	2,759	203-1,152	524	171
Rhabdocalyptus species	254.33		259-1,014	548	15
Dasycottus setiger	199.97	1,967	200-660	380	110
Octopus dofleini	199.66	143	203-1,152	361	62
Sebastes aleutianus	191.79	210	200-458	322	45
Actinauge verrillii	189.17	21,412	206-1,138	527	53
Bathyraja taranetzi	181.77	219	200-804	411	40
Crinoidea	165.31	7,415	333-1,138	848	7
Chrysaora melanaster	153.44	207	203-1,169	564	112
Zoraster evermanni	151.60	1,534	215-1,138	785	35
Gorgonocephalus eucnemis	148.43	2,472	206-645	332	25
Pandalus borealis	147.77	21,884	200-797	298	70
Careproctus rastrinus	145.66	447	202-397	266	47
Ophiuroid species	138.11	209,971	454-797	579	14
Lepidopsetta polyxystra	128.06	240	203-323	246	12
Careproctus melanurus	124.80	205	346-1,070	670	58
Careproctus furcellus	119.60	228	203-1,010	533	75
Chionoecetes opilio	112.71	273	228-517	348	19
Leptagonus frenatus	111.98	2,120	200-1,124	337	71
Pyrulofusus melonis	110.68	946	215-621	434	47
Chionoecetes bairdi	110.48	1,769	200-495	283	51
Ophiopholis aculeata	110.42	70,948	200-957	493	33
Lithodes couesi	109.05	163	645-1,169	884	29
Nearchaster species	101.93	3,123	208-1,138	694	56
Lycodes diapterus	97.55	1,775	214-1,084	533	124
Bathyplotes species	97.24	8,288	200-1,138	599	34
Embassichthys bathybius	95.32	78	601-909	723	22
Benthoctopus leioderma	88.84	219	214-1,106	607	76
Paralomis multispina	78.24	137	428-1,169	926	21
Asteronyx loveni	75.38	2,746	206-1,152	477	27
Lophaster furcilliger	71.71	2,445	252-1,138	672	56
Paragorgia arborea	67.87		813-1,036	910	5
Buccinum oedematum	65.37	2,049	205-1,152	652	123
Nearchaster variabilis	62.85	1,597	405-957	629	23
Scotoplanes theeli	59.99	9,644	1,104-1,104	1,104	1
Leuroglossus schmidti	57.89	7,619	202-1,169	651	135
Myxoderma sacculatum	56.80	506	208-1,118	638	29
Aptocyclus ventricosus	56.05	42	279-1,138	665	36
Pandalopsis dispar	52.07	3,766	205-631	386	55
Microstomus pacificus	49.33	60	203-546	359	36
Opisthoteuthis californiana	47.15	46	286-813	557	19
Hippasteria spinosa	42.24	118	200-1,118	537	29
Pagurus cornutus	41.88	1,047	206-674	427	68
Graneledone boreopacifica	41.76	44	704-1,138	1,009	7
Fusitriton oregonensis	41.70	574	200-801	322	68
Aphrodita species	41.42	3,492	203-1,057	463	105
Diplopteraster multipes	40.52	186	200-1,036	388	44

Table 6. Continued.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Virgularidae	37.44	6,080	215-1,138	508	14
Elassodiscus tremebundus	33.95	351	544-1,138	879	30
Alepisaurus ferox	33.06	5	362-643	476	5
Benthoctopus species	30.77	51	298-1,118	731	20
Antimora microlepis	29.64	158	592-1,169	876	41
Solaster paxillatus	29.16	147	200-1,070	447	41
Elassodiscus caudatus	29.05	468	264-1,152	773	78
Lampetra tridentata	28.90	82	260-1,036	530	45
Paralomis verrilli	28.47	96	1,124-1,152	1,138	2
Beringius frielei	27.47	278	203-1,057	458	54
Bathyraja abyssicola	25.60	2	944-1,014	979	2
Careproctus colletti	25.07	102	375-1,138	704	37
Bathyagonus nigripinnis	25.04	1,939	208-1,084	542	128
Bathylagus species	24.80	834	561-1,169	896	44
Allocentrotus fragilis	22.74	172	200-649	324	24
Moroteuthis robusta	22.54	1	496-496	496	1
Bathymaster signatus	21.74	127	200-256	224	12
Octopus species 1	19.76	228	214-1,152	529	105
Careproctus cypselurus	19.75	179	228-1,118	779	47
Gastropoda shells	18.38	18	202-1,104	494	40
Pteraster species	17.68	282	200-1,138	616	33
Gonatopsis borealis	17.64	333	228-1,124	573	41
Pagurus aleuticus	17.26	642	215-1,152	713	67
Strongylocentrotus droebachiensis	16.84	313	206-472	305	26
Pandalopsis aleutica	16.84	1,147	375-1,169	843	42
Cyanea capillata	16.27	28	233-1,009	575	22
Actiniaria	16.24	1,234	200-1,118	447	57
Stenobrachius species	13.56	1,593	341-1,169	720	114
Rossia pacifica	13.12	145	200-451	266	36
Scyphozoa	12.89	40	202-1,169	648	37
Heterozonias alternatus	12.50	63	208-1,104	644	10
Triglops scepticus	12.12	227	203-375	238	19
Neptunea species eggs	11.78		202-1,084	532	20
Icelus canaliculatus	11.46	603	322-1,169	625	43
Mycale loveni	10.95		203-328	257	8
Balanus evermanni	10.29	4	276-340	308	2
Lampanyctus jordani	9.59	291	233-1,084	632	53
Bathylagus pacificus	9.00	320	489-1,124	886	19
Strongylocentrotus species	8.91	360	203-402	290	8
Hemilepidotus jordani	8.66	11	229-479	299	4
Icelus spiniger	8.63	239	200-333	247	36
Pasiphaea pacifica	8.43	2,978	298-1,084	506	39
Chrysaora species	7.64	6	328-328	328	1
Pyrulofusus deformis	7.54	33	215-458	291	11
Thaleichthys pacificus	7.39	165	207-517	330	12
Pyrulofusus harpa	7.35	39	217-621	364	6
Crossaster species	7.20	14	286-472	360	3
Solaster species B	7.14	27	206-489	351	6

Table 6. Continued.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Arctomelon stearnsii	7.10	127	233-797	502	35
Lycenchelys crotalinus	7.04	73	215-958	648	17
Nudibranchia unident.	6.73	322	200-1,138	478	27
Buccinum species eggs	6.13		203-926	518	52
Pandalus tridens	5.86	1,166	206-549	387	8
Pleurogrammus monopterygius	5.68	6	214-311	245	4
Bathyraja species	5.41	15	239-1,084	758	6
Sebastes polyspinis	5.33	8	202-404	250	6
Bathyraja aleutica egg case	5.32	83	304-515	383	8
Pagurus trigonocheirus	5.29	281	208-305	251	8
Porifera	5.10		454-489	470	4
Oncorhynchus keta	4.96	4	217-1,009	648	4
Eualus suckleyi	4.96	1,772	415-1,106	787	38
Keratoisis species	4.89		847-847	847	1
Neomenia species	4.84	130	328-1,039	713	6
Chauliodus macouni	4.62	154	445-1,138	891	43
Henricia species	4.51	204	200-1,106	423	70
Bathyraja interrupta egg case	3.76	195	203-1,010	352	17
Buccinum species A (Clark)	3.68	79	669-1,169	933	22
Mediaster species	3.61	172	215-1,169	733	15
Gonatidae unident.	3.48	45	321-1,169	822	17
Pseudostichopus species	3.38	62	423-515	461	3
Sebastolobus macrochir	3.19	6	402-643	551	5
Stenobrachius leucopsarus	3.15	430	203-1,169	692	58
Gephyreaster swifti	3.13	2	252-252	252	1
Pteraster tesselatus	3.12	12	205-669	388	5
Bathyraja violacea	3.12	1	328-328	328	1
Coryphaenoides longifilis	3.09	3	508-1,118	720	3
Bathyraja parmifera egg case	2.92	89	203-585	297	8
Sebastes variabilis	2.89	2	214-239	227	2
Pseudarchaster alascensis	2.75	70	215-1,014	583	23
Lumpenella longirostris	2.68	35	451-631	521	9
Lycodes brevipes	2.65	34	215-443	294	6
Oneirodes thompsoni	2.64	23	685-1,169	985	18
Bivalvia shells	2.34	2	207-417	275	6
Hyas lyratus	2.29	133	200-478	311	36
Crystallichthys cyclospilus	2.23	5	215-248	232	2
Pseudarchaster parelii	2.21	63	215-1,118	617	35
Hemitripterus bolini eggs	1.96		259-596	392	3
Isidella species	1.82		736-1,036	871	4
Hexactinellida	1.79		804-804	804	1
Solaster endeca	1.78	2	206-206	206	1
Halargyreus johnsonii	1.77	8	1,009-1,138	1,062	5
Psolus squamatus	1.65	69	206-1,036	771	6
Myoxocephalus polyacanthocephalus	1.58	1	248-248	248	1
Clupea pallasi	1.36	3	203-445	324	2
Sebastes species	1.36	2	286-333	310	2
Stomphia coccinea	1.35	37	203-255	227	5

Table 6. Continued.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Polychaeta	1.29	477	323-613	505	8
Pagurus confragosus	1.26	38	214-311	247	15
Actinostolidae	1.25	130	203-606	366	12
Parastichopus species	1.25	17	328-728	511	3
Taonius pavo	1.23	5	1,009-1,118	1,072	4
Elassochirus cavimanus	1.15	25	200-361	254	14
Oneirodes bulbosus	1.08	11	532-1,152	913	9
Pteraster militaris	1.07	34	498-621	560	5
Halichondria panicea	1.06		454-454	454	1
Liparidinae	1.04	90	340-1,169	822	32
Brisingella exilis	0.97	20	454-633	550	7
Allocyttus folletti	0.96	1	506-506	506	1
Cribrinopsis fernaldi	0.94	24	203-374	272	8
Japatella diaphana	0.89	6	549-1,169	854	5
Icelus euryops	0.89	68	225-728	429	21
Aurelia aurita	0.87	2	321-1,106	714	2
Aurelia species	0.85	3	795-1,070	901	3
Molpadia intermedia	0.85	27	419-1,104	609	7
Bathyraja trachura egg case	0.82	58	797-1,014	909	5
Gonatus species	0.81	27	292-1,106	632	10
Bothrocara species	0.79	66	719-1,169	965	11
Tritonia species	0.78	9	402-957	565	6
Careproctus species	0.77	20	700-1,104	902	6
Aequorea species	0.75	26	445-1,036	813	16
Antipathes species	0.72		897-897	897	1
Periphylla periphylla	0.69	40	445-1,124	785	26
Crossaster papposus	0.68	75	328-1,169	615	8
Poromitra crassiceps	0.67	26	454-1,106	854	12
Halichondria cf. *sitiens*	0.64	17	200-710	344	4
Volutopsius species eggs	0.60	7	203-643	420	13
Stomphia species	0.59	38	203-585	303	14
Hydrozoa	0.55		406-1,009	589	8
Lebbeus groenlandicus	0.51	47	478-1,169	794	5
Ctenodiscus crispatus	0.50	42	215-1,104	409	9
Bathylagus milleri	0.47	11	511-1,014	837	7
Neptunea insularis	0.47	2	206-206	206	1
Coryphaenoides species	0.46	1	909-909	909	1
Halipteris willemoesi	0.46	23	206-489	394	5
Lycodapus species	0.46	123	215-1,106	610	44
Nannobrachium regale	0.42	8	917-1,014	987	4
Amphilaphis species	0.40		328-549	406	3
Diaphus theta	0.37	29	203-805	425	14
Serripes groenlandicus	0.37	4	207-215	211	2
Gonatus onyx	0.37	3	447-820	580	3
Octopus species	0.36	7	1,124-1,124	1,124	1
Bathyraja minispinosa egg case	0.36	37	217-957	537	9
Paraliparis pectoralis	0.35	22	917-1,124	1,007	8
Caristius macropus	0.35	1	511-511	511	1

Table 6. Continued.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Benthalbella dentata	0.33	10	532-1,124	861	8
Bivalvia species	0.32	21	624-631	628	2
Percis japonicus	0.32	2	228-228	228	1
Hippasteria species	0.30	3	847-955	901	2
Bothrocara pusillum	0.29	36	228-1,014	866	6
Laqueus californianus	0.28	26	215-837	382	6
Teuthoidea	0.27	4	479-1,124	801	3
Urticina lofotensis	0.27	19	202-308	239	6
Plicifusus kroyeri	0.26	5	205-215	211	4
Oneirodes species	0.25	2	660-909	785	2
Galiteuthis phyllura	0.25	2	721-1,169	945	2
Modiolus modiolus	0.23	6	207-613	425	3
Puzanovia rubra	0.23	9	897-897	897	1
Sipuncula	0.23	111	454-606	514	7
Solaster species A	0.23	4	215-375	271	4
Paraliparis dactylosus	0.22	18	505-1,010	712	13
Ascidian species	0.21	104	333-797	561	5
Gastropoda eggs	0.21		506-506	506	1
Crangon communis	0.20	51	206-457	348	18
Holothuroidea species	0.19	5	321-621	434	3
Melamphaes lugubris	0.19	8	406-495	458	5
Macropinna microstoma	0.19	4	933-1,011	985	3
Careproctus simis	0.18	8	700-799	737	4
Terebratalia transversa	0.18	20	322-478	376	3
Eualus species	0.17	86	549-1,118	819	10
Henricia asthenactis	0.16	1	478-478	478	1
Alepocephalidae	0.14	2	917-1,014	966	2
Malacocottus kincaidi	0.14	1	1,010-1,010	1,010	1
Cranchiidae	0.14	1	1,106-1,106	1,106	1
Swiftia species	0.14		512-532	522	2
Argis lar	0.13	35	215-472	356	17
Pasiphaea tarda	0.13	13	633-1,084	872	8
Sebastes babcocki	0.13	1	259-259	259	1
Buccinum species	0.13	3	512-1,010	761	2
Pycnogonida	0.12	59	323-1,011	577	9
Pyrulofusus species eggs	0.12		259-545	353	4
Platyhelminthes	0.12	3	203-410	283	3
Careproctus gilberti	0.12	15	361-512	451	8
Rhinoliparis barbulifer	0.12	9	445-1,014	763	4
Chiroteuthis calyx	0.11	2	452-1,106	779	2
Rhinoliparis attenuatus	0.11	17	361-1,011	663	8
Lycodapus fierasfer	0.11	22	649-1,124	895	4
Rhinoliparis species	0.11	13	933-1,106	1,021	5
Diplopteraster species	0.11	1	837-837	837	1
Beringius species eggs	0.11		202-797	345	9
Ascidacea	0.11		260-323	292	2
Sigmops gracilis	0.10	13	415-1,011	707	10
Bathylagus ochotensis	0.10	6	631-1,124	791	6

Table 6. Continued.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Notostomus japonicus	0.09	4	506-1,138	854	4
Thaliacea species	0.09	7	592-1,124	819	5
Tactostoma macropus	0.09	1	797-797	797	1
Eualus macilentus	0.09	36	820-820	820	1
Polychaeta	0.08	12	240-897	583	3
Allocareproctus jordani	0.08	3	478-625	552	2
Paraliparis ulochir	0.08	10	592-1,011	844	4
Chorilia longipes	0.08	9	264-1,014	480	8
Ancistrolepis eucosmius	0.08	14	215-613	480	7
Myctophidae	0.08	17	478-820	612	3
Paraliparis species	0.08	12	505-1,011	819	8
Pandalopsis ampla	0.08	7	414-414	414	1
Colus herendeenii	0.08	4	215-443	302	3
Psolus fabricii	0.08	5	847-847	847	1
Alcyonacea	0.07		549-549	549	1
Gonatus pyros	0.07	1	736-736	736	1
Polychaete tubes	0.07	1	528-649	589	2
Stenobrachius nannochir	0.07	6	512-917	701	4
Stegophiura ponderosa	0.07	4	478-728	566	4
Lycenchelys species	0.06	7	813-1,106	1,027	6
Elassodiscus species	0.06	16	505-867	724	3
Lampanyctus species	0.06	3	621-1,009	815	2
Vampyroteuthis infernalis	0.06	1	1,106-1,106	1,106	1
Rastrinus scutiger	0.06	8	206-347	292	3
Zesticelus profundorum	0.05	17	897-1,070	991	7
Rossia pacifica eggs	0.05		215-259	237	2
Neptunea species	0.04	1	1,011-1,011	1,011	1
Sagamichthys abei	0.04	2	308-820	564	2
Rouleina attrita	0.04	1	1,014-1,014	1,014	1
Florometra species	0.04	5	410-457	440	3
Aurelia labiata	0.04	1	226-226	226	1
Mytilus edulis	0.04	3	414-414	414	1
Isopoda	0.03	7	203-1,169	431	6
Erimacrus isenbeckii	0.03	1	323-323	323	1
Gnathophausia ingens	0.03	16	670-1,106	932	10
Pagurus ochotensis	0.03	2	298-311	305	2
Careproctus species cf. *gilberti*	0.03	5	405-478	430	3
Avocettina infans	0.03	3	457-761	629	3
Natica clausa	0.03	4	208-457	280	4
Lithodidae species	0.03	6	333-375	354	2
Buccinum scalariforme	0.03	1	215-215	215	1
Tarsaster alaskanus	0.03	3	203-515	359	2
Pagurus species	0.02	2	203-203	203	1
Fusitriton oregonensis eggs	0.02		215-361	271	3
Pagurus brandti	0.02	3	200-239	220	2
Aforia circinata	0.02	3	203-511	313	3
Pododesmus cepio	0.02	6	457-457	457	1
Teuthida species egg	0.02		511-511	511	1

Table 6. Continued.

Species Name	Total weight (kg)	Total numbers	Min-Max depth caught (m)	Mean bottom depth (m)	Frequency of ocurrence (hauls)
Bathyagonus alascanus	0.02	3	200-728	405	3
Yoldia species	0.02	8	511-512	512	2
Gonatus madokai	0.02	1	452-452	452	1
Careproctus bowersianus	0.02	1	539-539	539	1
Liparis cus nanus	0.02	7	401-549	451	3
Caridea species	0.02	3	761-1,014	928	3
Colus aphelus	0.02	2	415-415	415	1
Boreotrophon alaskanus	0.02	2	279-279	279	1
Psolus species	0.02	1	1,169-1,169	1,169	1
Nemichthyidae	0.01	1	615-615	615	1
Scalpellum cornutum	0.01	4	215-347	265	3
Crangon dalli	0.01	5	202-323	263	2
Labidochirus splendescens	0.01	1	298-298	298	1
Careproctus species H	0.01	1	304-304	304	1
Protomyctophum species	0.01	3	405-797	601	2
Osteichthys eggs	0.01		515-515	515	1
Paraliparis cephalus	0.01	2	749-1,124	937	2
Eualus barbatus	0.01	3	206-341	274	2
Naticidae	0.01	1	236-236	236	1
Gorgonacea	0.01		897-897	897	1
Careproctus ectenes	0.01	1	478-478	478	1
Lycenchelys camchatica	0.01	1	1,009-1,009	1,009	1
Colus spitzbergensis	0.01	1	457-457	457	1
Cyclocardia species	0.01	3	321-321	321	1
Bathyraja taranetzi egg case	0.01	1	323-323	323	1
Mysidacea	0.01	5	549-1,009	856	3
Panaeidea	0.01	2	897-897	897	1
Brachyura species	0.01	1	955-955	955	1
Cyclothone species	0.01	4	898-898	898	1
Anthomastus species A	0.01		847-847	847	1
Hymenodora frontalis	0.01	5	805-805	805	1
Oregonia gracilis	0.01	1	249-249	249	1
Placiphorella atlantica	0.01	1	719-719	719	1
Sulcosinus taphrius	0.01	1	478-478	478	1
Thrissacanthias penicillatus	0.01	1	1,010-1,010	1,010	1
Eunoe depressa	>.01	1	528-528	528	1
Lithodes species	>.01	1	299-299	299	1
Cryptonatica (=Natica) aleutica	>.01	1	215-215	215	1
Stephanasterias albula	>.01	1	277-277	277	1
Echinarachnius parma	>.01	1	349-349	349	1
Polyplacophora species	>.01	1	847-847	847	1
Nectoliparis pelagicus	>.01	1	1,009-1,009	1,009	1
Sergestes species	>.01	1	401-401	401	1
Crangon species	>.01	2	328-328	328	1
Argis species	>.01	1	259-259	259	1
Boreoscala greenlandica	>.01	1	279-279	279	1
Cardita species	>.01	1	1,009-1,009	1,009	1
Cephalopoda egg	>.01		454-454	454	1

Table 7. Summary of biological data collected during the 2004 BSS survey.

Scientific Name	Individuals Measured	Otoliths Collected	Individual Weights	Stomachs Scanned
Albatrossia pectoralis	12,284			528
Coryphaenoides cinereus	11,018	257	257	
Hippoglossoides elassodon	8,350			
Atheresthes stomias	7,433			
Sebastolobus alascanus	6,681	826	824	
Glyptocephalus zachirus	5,084			
Theragra chalcogramma	4,775			562
Bothrocara cf. *brunneum* group	4,501		461	
Sebastes alutus	4,084	426	426	324
Atheresthes evermanni	2,774			
Coryphaenoides acrolepis	2,641	437	437	130
Malacocottus zonurus	2,624		70	
Dasycottus setiger	1,930	269	280	
Reinhardtius hippoglossoides	1,792	490	490	
Lycodes diapterus	1,710	224	254	
Bathyraja aleutica	1,492		26	
Anoplopoma fimbria	1,260		9	344
Bathyraja lindbergi	606		102	
Lycodes concolor	597			
Bathyraja interrupta	532		75	
Gadus macrocephalus	531			
Bathyraja minispinosa	307		50	
Sebastes borealis	265	262	262	
Lepidopsetta polyxystra	253			
Bathyraja maculata	226		32	
Sebastes aleutianus	225	217	217	
Bathyraja taranetzi	221		49	
Sebastes variabilis	212			
Careproctus melanurus	203			
Bathyraja trachura	200		28	
Sebastes polyspinis	194			
Bathyraja parmifera	180		1	
Antimora microlepis	149		30	
Berryteuthis magister	148			
Hippoglossus stenolepis	143		63	
Psychrolutes phrictus	133		30	
Hemitripterus bolini	119	118	117	
Zaprora silenus	81			
Embassichthys bathybius	78			
Sebastes variegatus	63			
Microstomus pacificus	60			
Bathymaster signatus	41			
Somniosus pacificus	27		24	1
Hemilepidotus jordani	10			
Aptocyclus ventricosus	7		6	
Pleurogrammus monopterygius	6			
Sebastolobus macrochir	4			
Oncorhynchus keta	3			
Bathyraja abyssicola	2			
Bathyraja violacea	1			
Myoxocephalus polyacanthocephalus	1			
TOTALS	**86,261**	**3,526**	**8,146**	**1,889**

Table 8. Summary of voucher specimens collected during the 2004 BSS survey. Lot indicates individual or group of individuals of a single species.

Species Name	LOTS	Species Name	LOTS	Species Name	LOTS
Octopus species 1	43	*Coryphaenoides cinereus*	2	*Alepisaurus ferox*	1
Liparidinae	30	*Coryphaenoides longifilis*	2	*Macropinna microstoma*	1
Bathyraja species egg case	25	*Hemitripterus bolini* eggs	2	*Bothrocara* cf. brunneum group	1
Careproctus furcellus	25	*Icelus spiniger*	2	*Lycenchelys camchatica*	1
Pagurus cornutus	24	*Icelus euryops*	2	*Lycodapus fierasfer*	1
Pagurus aleuticus	18	*Rastrinus scutiger*	2	*Puzanovia rubra*	1
Benthoctopus leioderma	18	*Halargyreus johnsonii*	2	*Sebastolobus alascanus*	1
Bathyraja interrupta egg case	16	*Allocareproctus jordani*	2	*Sebastes aleutianus*	1
Elassodiscus caudatus	16	*Paraliparis cephalus*	2	*Sebastes alutus*	1
Paraliparis dactylosus	13	*Avocettina infans*	2	*Sebastes variabilis*	1
Gonatopsis borealis	13	*Sagamichthys abei*	2	*Sebastes babcocki*	1
Bothrocara species	11	*Lycodes diapterus*	2	*Sebastes variegatus*	1
Careproctus rastrinus	10	*Lycodapus* species	2	*Sebastes borealis*	1
Bothrocara brunneum	10	*Sebastes* species	2	*Antipathes* species	1
Bothrocara species cf. *brunneum*	10	*Swiftia* species	2	*Actinauge verrillii*	1
Benthoctopus species	9	*Pagurus ochotensis*	2	Polychaeta	1
Bathyraja aleutica egg case	8	Lithodidae species	2	*Sergestes* species	1
Bathyraja parmifera egg case	8	*Tritonia* species	2	*Pandalus tridens*	1
Bathyraja minispinosa egg case	8	*Opisthoteuthis californiana*	2	*Eualus* species	1
Careproctus gilberti	8	*Octopus dofleini*	2	*Eualus barbatus*	1
Paraliparis sp.	8	Gonatidae species	2	*Pasiphaea pacifica*	1
Elassodiscus tremebundus	7	*Galiteuthis phyllura*	2	*Hymenodora frontalis*	1
Careproctus cypselurus	7	*Hippasteria* species	2	*Chionoecetes angulatus*	1
Careproctus colletti	7	*Crossaster* species	2	*Pagurus* species	1
Paraliparis pectoralis	7	*Pteraster* species	2	*Labidochirus splendescens*	1
Rhinoliparis attenuatus	7	*Zoraster evermanni*	2	*Lithodes* species	1
Rossia pacifica	7	Osteichthyes eggs	1	*Neomenia* species	1
Berryteuthis magister	7	*Bathyraja abyssicola*	1	*Colus jordani*	1
Bathyraja species	6	*Bathyraja taranetzi* egg case	1	*Colus herendeenii*	1
Careproctus species	6	*Bathyraja aleutica*	1	*Colus spitzbergensis*	1
Lycenchelys species	6	*Bathyraja maculata*	1	*Volutopsius middendorffii*	1
Pagurus confragosus	6	*Bathyraja violacea*	1	*Plicifusus kroyeri*	1
Bathyraja trachura egg case	5	Alcyonacea	1	*Sulcosinus taphrius*	1
Albatrossia pectoralis	5	Gorgonacea	1	*Aforia circinata*	1
Careproctus simis	5	Actinostolidae	1	*Boreotrophon pacificus*	1
Rhinoliparis species	5	Mysidacea	1	*Buccinum* species	1
Bathyraja interrupta	4	Penaeidea	1	*Ancistrolepis eucosmius*	1
Pycnogonida	4	Brachyura	1	*Cardita* species	1
Gonatus species	4	Polyplacophora species	1	Cephalopoda species eggs	1
Zesticelus profundorum	4	*Neptunea* species	1	*Octopus* species	1
Paraliparis ulochir	4	Bivalvia species	1	*Japatella diaphana*	1
Bothrocara pusillum	4	*Heterozonias alternatus*	1	*Rossia pacifica* eggs	1
Nudibranchia species	4	Holothuroidea species	1	*Gonatus pyros*	1
Taonius pavo	4	Porifera	1	*Gonatus madokai*	1
Bathyraja trachura	3	*Microstomus pacificus*	1	*Moroteuthis robusta*	1
Bathyraja minispinosa	3	*Embassichthys bathybius*	1	*Chiroteuthis calyx*	1
Bathylagus ochotensis	3	*Rouleina attrita*	1	*Stephanasterias albula*	1
Malacocottus zonurus	3	*Chauliodus macouni*	1	*Pseudarchaster alascensis*	1
Triglops scepticus	3	*Coryphaenoides* species	1	*Mediaster* species	1
Psychrolutes phrictus	3	*Coryphaenoides acrolepis*	1	*Ceramaster japonicus*	1
Elassodiscus species	3	*Crystallichthys cyclospilus*	1	*Solaster* species B	1
Careproctus species cf. *gilberti*	3	*Careproctus melanurus*	1	*Crossaster borealis*	1
Lipariscus nanus	3	*Careproctus bowersianus*	1	*Diplopteraster* sp.	1
Rhinoliparis barbulifer	3	*Careproctus ectenes*	1	*Thrissacanthias penicillatus*	1
Sebastolobus macrochir	3	*Careproctus* species *H*	1	*Dipsacaster borealis*	1
Pagurus trigonocheirus	3	*Nectoliparis pelagicus*	1	*Myxoderma sacculatum*	1
Graneledone boreopacifica	3	*Poromitra crassiceps*	1	Crinoidea	1
Bathyraja taranetzi	2	*Melamphaes lugubris*	1	*Parastichopus* species	1
Bathyraja parmifera	2	*Allocyttus folletti*	1	*Bathyplotes* species	1
Alepocephalidae	2	*Caristius macropus*	1	*Pannychia moseleyi*	1
Actiniaria	2	*Nannobrachium regale*	1	*Aphrocallistes vastus*	1
Teuthoidea	2	Nemichthyidae	1	*Rhabdocalyptus* species	1
Ophiuroid species	2	*Oneirodes bulbosus*	1	Polychaete tubes	1
Bathyagonus alascanus	2	*Oneirodes thompsoni*	1		

Table 9. Abundance and density estimates of all fish and invertebrates encountered during the 2004 BSS survey. Species presentation is by taxonomic convention. See text for details.

SPECIES	STRATUM	BIOMASS		POPULATION		CPUE			
	(Depth in meters)	(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Somniosus pacificus	200-600	6.77E+02	6.61E+04	4.64E+04	2.30E+08	3.44E-01	2.52E+00	2.23E-02	7.69E-03
	600-1200	1.60E+03	5.35E+05	6.59E+04	4.91E+08	1.11E+00	1.93E+01	4.71E-02	1.76E-02
	All Depths	2.28E+03	6.01E+05	1.12E+05	7.21E+08	6.34E-01	9.00E+00	3.18E-02	1.15E-02
Bathyraja abyssicola	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.64E+02	1.41E+04	1.29E+04	8.77E+07	7.30E-02	2.33E-01	5.70E-03	1.42E-03
	All Depths	1.64E+02	1.41E+04	1.29E+04	8.77E+07	2.78E-02	8.96E-02	2.17E-03	5.44E-04
Bathyraja aleutica	200-600	1.26E+04	4.58E+06	2.80E+06	1.06E+11	6.81E+00	1.98E+02	1.47E+00	4.42E+00
	600-1200	2.42E+03	1.15E+05	3.14E+06	3.27E+11	1.83E+00	7.17E+00	2.37E+00	2.44E+01
	All Depths	1.50E+04	4.69E+06	5.94E+06	4.33E+11	4.91E+00	1.31E+02	1.82E+00	1.21E+01
Bathyraja interrupta	200-600	1.90E+03	4.91E+04	1.68E+06	3.68E+10	1.07E+00	2.68E+00	9.06E-01	1.69E+00
	600-1200	5.25E+01	9.51E+02	1.32E+05	3.71E+09	4.53E-02	7.15E-02	9.70E-02	1.88E-01
	All Depths	1.95E+03	5.01E+04	1.81E+06	4.06E+10	6.81E-01	1.93E+00	5.98E-01	1.27E+00
Bathyraja lindbergi	200-600	1.19E+03	5.04E+04	3.46E+05	4.23E+09	5.95E-01	2.68E+00	1.69E-01	2.22E-01
	600-1200	3.00E+03	3.41E+05	2.53E+06	3.23E+11	2.10E+00	1.86E+01	1.77E+00	1.42E+01
	All Depths	4.19E+03	3.91E+05	2.88E+06	3.27E+11	1.17E+00	9.22E+00	7.79E-01	6.11E+00
Bathyraja maculata	200-600	3.26E+03	2.99E+05	7.49E+05	1.85E+10	1.63E+00	1.27E+01	3.57E-01	6.97E-01
	600-1200	1.90E+02	7.28E+03	1.54E+05	5.18E+09	1.48E-01	3.67E-01	1.27E-01	3.38E-01
	All Depths	3.45E+03	3.06E+05	9.03E+05	2.37E+10	1.07E+00	8.49E+00	2.69E-01	5.70E-01
Bathyraja minispinosa	200-600	1.41E+03	1.20E+05	6.62E+05	2.06E+10	7.41E-01	6.27E+00	3.38E-01	1.06E+00
	600-1200	3.47E+02	4.28E+03	5.85E+05	1.12E+10	2.49E-01	1.99E-01	4.34E-01	6.82E-01
	All Depths	1.76E+03	1.24E+05	1.25E+06	3.19E+10	5.54E-01	4.00E+00	3.75E-01	9.12E-01
Bathyraja parmifera	200-600	4.25E+03	1.93E+06	6.99E+05	4.37E+10	2.04E+00	5.99E+01	3.47E-01	1.41E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.25E+03	1.93E+06	6.99E+05	4.37E+10	1.26E+00	3.80E+01	2.15E-01	8.98E-01
Bathyraja taranetzi	200-600	6.76E+02	1.94E+04	7.19E+05	2.48E+10	3.54E-01	8.96E-01	3.71E-01	1.09E+00
	600-1200	2.61E+01	1.42E+02	1.10E+05	1.78E+09	2.17E-02	1.01E-02	8.82E-02	1.30E-01
	All Depths	7.02E+02	1.96E+04	8.29E+05	2.65E+10	2.27E-01	5.83E-01	2.63E-01	7.42E-01
Bathyraja trachura	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.68E+03	4.23E+04	8.96E+05	1.11E+10	1.20E+00	2.60E+00	6.08E-01	7.99E-01
	All Depths	1.68E+03	4.23E+04	8.96E+05	1.11E+10	4.57E-01	1.32E+00	2.32E-01	3.90E-01
Bathyraja violacea	200-600	7.92E+00	6.27E+01	2.54E+03	6.44E+06	4.78E-03	3.27E-03	1.53E-03	3.36E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	7.92E+00	6.27E+01	2.54E+03	6.44E+06	2.96E-03	2.03E-03	9.49E-04	2.08E-04
Bathyraja sp.	200-600	8.18E+00	6.69E+01	1.35E+04	1.81E+08	4.71E-03	3.17E-03	7.75E-03	8.58E-03
	600-1200	1.08E+01	3.97E+01	3.60E+04	5.49E+08	8.56E-03	2.13E-03	3.16E-02	4.02E-02
	All Depths	1.90E+01	1.07E+02	4.95E+04	7.31E+08	6.17E-03	2.76E-03	1.68E-02	2.06E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (t)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no./ha	CPUE variance
Sebastes aleutianus	200-600	6.46E+02	1.11E+04	7.26E+05	2.13E+10	3.61E-01	5.67E-01	4.13E-01	1.17E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.46E+02	1.11E+04	7.26E+05	2.13E+10	2.24E-01	3.81E-01	2.56E-01	7.66E-01
Sebastes alutus	200-600	1.12E+05	1.82E+09	1.29E+08	2.38E+15	5.97E+01	8.15E+04	6.84E+01	1.07E+05
	600-1200	3.50E+00	1.22E+01	3.83E+03	1.47E+07	2.62E-03	6.05E-04	2.87E-03	7.24E-04
	All Depths	1.12E+05	1.82E+09	1.29E+08	2.38E+15	3.69E+01	5.11E+04	4.23E+01	6.74E+04
Sebastes babcocki	200-600	6.87E-01	4.72E-01	5.28E+03	2.79E+07	3.72E-04	1.98E-05	2.86E-03	1.17E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.87E-01	4.72E-01	5.28E+03	2.79E+07	2.30E-04	1.22E-05	1.77E-03	7.25E-04
Sebastes borealis	200-600	2.50E+03	3.11E+05	1.05E+06	1.06E+11	1.26E+00	1.41E+01	5.26E-01	4.31E+00
	600-1200	6.72E+01	2.45E+03	2.23E+04	1.44E+08	6.11E-02	1.94E-01	1.83E-02	9.05E-03
	All Depths	2.57E+03	3.14E+05	1.07E+06	1.06E+11	8.01E-01	9.09E+00	3.32E-01	2.73E+00
Sebastolobus macrochir	200-600	4.74E+00	1.03E+01	8.72E+03	3.38E+07	1.94E-03	2.76E-04	3.58E-03	9.08E-04
	600-1200	7.52E+00	2.66E+01	1.45E+04	1.04E+08	5.68E-03	1.09E-03	1.08E-02	4.11E-03
	All Depths	1.23E+01	3.70E+01	2.33E+04	1.38E+08	3.37E-03	5.86E-04	6.34E-03	2.13E-03
Sebastes polyspinis	200-600	1.59E+01	4.39E+01	2.38E+04	9.69E+07	9.24E-03	2.27E-03	1.38E-02	5.02E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.59E+01	4.39E+01	2.38E+04	9.69E+07	5.72E-03	1.42E-03	8.56E-03	3.14E-03
Sebastes variabilis	200-600	1.32E+01	5.58E+01	9.43E+03	2.79E+07	7.60E-03	2.77E-03	5.43E-03	1.39E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.32E+01	5.58E+01	9.43E+03	2.79E+07	4.70E-03	1.72E-03	3.36E-03	8.64E-04
Sebastes sp.	200-600	5.15E+00	2.62E+01	8.32E+03	3.49E+07	2.62E-03	9.71E-04	3.76E-03	1.00E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.15E+00	2.62E+01	8.32E+03	3.49E+07	1.62E-03	6.01E-04	2.33E-03	6.23E-04
Sebastolobus alascanus	200-600	1.41E+04	2.55E+06	2.87E+07	1.22E+13	8.16E+00	1.75E+02	1.68E+01	7.53E+02
	600-1200	4.71E+03	2.82E+05	3.80E+06	3.41E+11	3.79E+00	3.03E+01	3.18E+00	3.63E+01
	All Depths	1.88E+04	2.83E+06	3.25E+07	1.26E+13	6.49E+00	1.24E+02	1.16E+01	5.22E+02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Atheresthes evermanni	200-600	1.20E+04	1.96E+06	9.01E+06	1.26E+12	6.74E+00	1.18E+02	4.96E+00	6.55E+01
	600-1200	2.77E+03	1.42E+05	1.21E+06	2.67E+10	2.16E+00	9.92E+00	9.39E-01	1.75E+00
	All Depths	1.47E+04	2.10E+06	1.02E+07	1.29E+12	4.99E+00	8.16E+01	3.43E+00	4.49E+01
Atheresthes stomias	200-600	5.37E+04	3.31E+07	5.31E+07	3.20E+13	2.82E+01	1.84E+03	2.81E+01	1.94E+03
	600-1200	9.14E+01	1.33E+03	5.51E+04	4.53E+08	7.86E-02	9.38E-02	4.27E-02	2.31E-02
	All Depths	5.37E+04	3.31E+07	5.32E+07	3.20E+13	1.75E+01	1.32E+03	1.74E+01	1.38E+03
Embassichthys bathybius	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	4.06E+02	1.17E+04	3.26E+05	6.36E+09	2.85E-01	5.02E-01	2.32E-01	2.80E-01
	All Depths	4.06E+02	1.17E+04	3.26E+05	6.36E+09	1.08E-01	2.09E-01	8.82E-02	1.19E-01
Glyptocephalus zachirus	200-600	1.24E+04	1.80E+06	2.19E+07	5.37E+12	6.88E+00	9.89E+01	1.20E+01	2.79E+02
	600-1200	4.98E-01	1.87E-01	6.29E+03	1.83E+07	4.55E-04	1.40E-05	5.74E-03	1.44E-03
	All Depths	1.24E+04	1.80E+06	2.19E+07	5.37E+12	4.26E+00	7.23E+01	7.45E+00	2.07E+02
Hippoglossus stenolepis	200-600	4.36E+03	5.77E+05	4.18E+05	3.82E+09	2.38E+00	2.55E+01	2.23E-01	1.62E-01
	600-1200	1.69E+02	1.82E+04	9.55E+03	5.02E+07	1.54E-01	1.38E+00	8.72E-03	3.87E-03
	All Depths	4.53E+03	5.95E+05	4.28E+05	3.87E+09	1.53E+00	1.74E+01	1.41E-01	1.12E-01
Hippoglossoides elassodon	200-600	2.25E+04	5.12E+06	5.26E+07	3.12E+13	1.22E+01	2.25E+02	2.80E+01	1.34E+03
	600-1200	1.26E+01	1.00E+02	1.21E+04	8.84E+07	9.07E-03	4.09E-03	8.79E-03	3.69E-03
	All Depths	2.25E+04	5.12E+06	5.26E+07	3.12E+13	7.55E+00	1.74E+02	1.73E+01	1.01E+03
Lepidopsetta polyxystra	200-600	5.84E+02	1.37E+05	1.05E+06	4.78E+11	3.30E-01	6.60E+00	5.95E-01	2.30E+01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.84E+02	1.37E+05	1.05E+06	4.78E+11	2.04E-01	4.10E+00	3.68E-01	1.43E+01
Microstomus pacificus	200-600	1.41E+02	5.55E+02	1.73E+05	6.59E+08	8.52E-02	3.56E-02	1.03E-01	4.10E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.41E+02	5.55E+02	1.73E+05	6.59E+08	5.27E-02	2.37E-02	6.40E-02	2.78E-02
Reinhardtius hippoglossoides	200-600	2.82E+04	1.25E+08	5.63E+06	3.16E+12	1.61E+01	7.23E+03	3.18E+00	1.84E+02
	600-1200	8.31E+03	1.73E+06	1.58E+06	4.78E+10	6.94E+00	1.62E+02	1.32E+00	4.38E+00
	All Depths	3.66E+04	1.27E+08	7.21E+06	3.21E+12	1.26E+01	4.56E+03	2.47E+00	1.17E+02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Gadus macrocephalus	200-600	5.76E+03	9.37E+05	2.03E+06	1.19E+11	3.07E+00	5.06E+01	1.10E+00	6.50E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.76E+03	9.37E+05	2.03E+06	1.19E+11	1.90E+00	3.34E+01	6.82E-01	4.30E+00
Theragra chalcogramma	200-600	6.24E+04	4.21E+08	6.12E+07	6.13E+14	3.23E+01	1.58E+04	3.14E+01	2.26E+04
	600-1200	4.85E+01	5.82E+02	5.12E+04	8.39E+08	3.14E-02	2.37E-02	3.32E-02	3.39E-02
	All Depths	6.25E+04	4.21E+08	6.12E+07	6.13E+14	2.00E+01	1.00E+04	1.95E+01	1.42E+04
Albatrossia pectoralis	200-600	2.15E+05	2.90E+09	5.31E+07	1.91E+14	9.69E+01	1.07E+05	2.36E+01	6.12E+03
	600-1200	4.51E+05	1.93E+09	1.31E+08	1.63E+14	3.15E+02	1.16E+05	9.19E+01	9.28E+03
	All Depths	6.67E+05	4.83E+09	1.84E+08	3.54E+14	1.80E+02	1.21E+05	4.96E+01	8.39E+03
Coryphaenoides acrolepis	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	4.04E+03	6.32E+05	1.76E+07	8.57E+12	2.65E+00	6.43E+01	9.62E+00	4.77E+02
	All Depths	4.04E+03	6.32E+05	1.76E+07	8.57E+12	1.01E+00	2.60E+01	3.67E+00	2.02E+02
Coryphaenoides cinereus	200-600	3.25E+03	2.02E+06	1.96E+07	7.44E+13	1.52E+00	6.79E+01	9.04E+00	2.43E+03
	600-1200	4.11E+04	1.01E+07	2.59E+08	5.45E+14	3.02E+01	7.84E+02	1.88E+02	3.80E+04
	All Depths	4.44E+04	1.22E+07	2.79E+08	6.19E+14	1.24E+01	5.31E+02	7.66E+01	2.33E+04
Coryphaenoides longifilis	200-600	1.03E+01	7.22E+01	6.77E+03	2.41E+07	5.27E-03	2.46E-03	3.66E-03	9.56E-04
	600-1200	1.67E+00	2.79E+00	5.42E+03	2.94E+07	8.59E-04	6.50E-05	2.79E-03	6.85E-04
	All Depths	1.20E+01	7.50E+01	1.22E+04	5.35E+07	3.59E-03	1.55E-03	3.33E-03	8.49E-04
Coryphaenoides sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.06E+00	4.26E+00	4.45E+03	1.98E+07	1.27E-03	1.43E-04	2.75E-03	6.64E-04
	All Depths	2.06E+00	4.26E+00	4.45E+03	1.98E+07	4.86E-04	5.45E-05	1.05E-03	2.53E-04
Halargyreus johnsonii	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	7.06E+00	1.57E+01	3.17E+04	2.91E+08	4.87E-03	5.76E-04	2.20E-02	1.01E-02
	All Depths	7.06E+00	1.57E+01	3.17E+04	2.91E+08	1.86E-03	2.24E-04	8.40E-03	3.93E-03
Antimora microlepis	200-600	4.90E-01	2.40E-01	2.20E+04	4.83E+08	2.32E-04	7.69E-06	1.04E-02	1.55E-02
	600-1200	1.45E+02	7.54E+02	7.55E+05	1.84E+10	8.85E-02	4.16E-02	4.52E-01	8.29E-01
	All Depths	1.46E+02	7.54E+02	7.77E+05	1.89E+10	3.39E-02	1.76E-02	1.79E-01	3.69E-01
Anoplopoma fimbria	200-600	5.52E+03	6.13E+05	2.30E+06	1.03E+11	3.29E+00	4.20E+01	1.38E+00	7.30E+00
	600-1200	5.18E+03	6.38E+05	1.56E+06	6.26E+10	4.23E+00	4.99E+01	1.28E+00	5.08E+00
	All Depths	1.07E+04	1.25E+06	3.86E+06	1.65E+11	3.65E+00	4.50E+01	1.34E+00	6.43E+00
Pleurogrammus monopterygius	200-600	1.68E+01	8.07E+01	1.80E+04	7.96E+07	9.65E-03	4.04E-03	1.04E-02	4.04E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.68E+01	8.07E+01	1.80E+04	7.96E+07	5.98E-03	2.52E-03	6.42E-03	2.52E-03
Zaprora silenus	200-600	1.87E+03	1.82E+06	3.11E+05	4.40E+10	9.89E-01	6.90E+01	1.65E-01	1.68E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.87E+03	1.82E+06	3.11E+05	4.40E+10	6.12E-01	4.28E+01	1.02E-01	1.04E+00

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Dasycottus setiger	200-600	6.89E+02	8.91E+03	6.27E+06	7.01E+11	3.88E-01	5.88E-01	3.54E+00	3.94E+01
	600-1200	9.63E+00	2.57E+01	2.91E+05	2.44E+10	8.80E-03	2.16E-03	2.66E-01	2.04E+00
	All Depths	6.98E+02	8.93E+03	6.56E+06	7.25E+11	2.43E-01	3.98E-01	2.29E+00	2.76E+01
Hemilepidotus jordani	200-600	1.13E+02	7.79E+03	1.17E+05	7.25E+09	6.54E-02	3.73E-01	6.74E-02	3.48E-01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.13E+02	7.79E+03	1.17E+05	7.25E+09	4.05E-02	2.31E-01	4.17E-02	2.16E-01
Hemitripterus bolini	200-600	1.27E+03	5.10E+04	4.31E+05	2.86E+09	6.79E-01	2.17E+00	2.25E-01	1.19E-01
	600-1200	1.45E+01	2.09E+02	6.63E+03	4.40E+07	1.32E-02	1.54E-02	6.06E-03	3.23E-03
	All Depths	1.29E+03	5.12E+04	4.38E+05	2.90E+09	4.25E-01	1.45E+00	1.42E-01	8.62E-02
Icelus canaliculatus	200-600	1.54E+01	4.22E+01	8.03E+05	1.14E+11	7.40E-03	1.88E-03	3.83E-01	4.93E+00
	600-1200	3.42E+01	1.40E+02	1.88E+06	4.82E+11	2.62E-02	7.72E-03	1.41E+00	2.33E+01
	All Depths	4.96E+01	1.82E+02	2.68E+06	5.96E+11	1.46E-02	4.16E-03	7.74E-01	1.21E+01
Icelus euryops	200-600	3.88E+00	2.10E+00	2.79E+05	1.13E+10	1.91E-03	6.96E-05	1.39E-01	3.80E-01
	600-1200	1.07E-01	5.86E-03	1.16E+04	8.18E+07	1.01E-04	4.55E-07	1.07E-02	6.03E-03
	All Depths	3.99E+00	2.10E+00	2.91E+05	1.14E+10	1.22E-03	4.39E-05	9.02E-02	2.41E-01
Icelus spiniger	200-600	3.93E+01	5.14E+01	1.07E+06	3.16E+10	1.83E-02	2.20E-03	4.99E-01	1.40E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.93E+01	5.14E+01	1.07E+06	3.16E+10	1.13E-02	1.44E-03	3.09E-01	9.21E-01
Malacocottus zonurus	200-600	1.52E+04	1.32E+06	1.22E+08	8.08E+13	7.57E-01	6.60E+00	6.30E+00	4.11E+02
	600-1200	1.20E+02	1.55E+03	1.22E+06	1.57E+11	1.80E-02	2.15E-02	1.81E-01	2.22E+00
	All Depths	1.53E+04	1.32E+06	1.23E+08	8.10E+13	7.75E-01	2.24E+00	6.48E+00	1.41E+02
Myoxocephalus polyacanthocephalus	200-600	4.65E+00	2.16E+01	2.94E+03	8.67E+06	2.68E-03	1.02E-03	1.69E-03	4.10E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.65E+00	2.16E+01	2.94E+03	8.67E+06	1.66E-03	6.34E-04	1.05E-03	2.54E-04
Psychrolutes phrictus	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.43E+03	1.04E+05	6.02E+05	1.61E+10	9.76E-01	5.95E+00	3.83E-01	6.96E-01
	All Depths	1.43E+03	1.04E+05	6.02E+05	1.61E+10	3.72E-01	2.48E+00	1.46E-01	2.98E-01
Rastrinus scutiger	200-600	1.76E-01	1.84E-02	2.39E+04	2.81E+08	9.68E-05	7.74E-07	1.32E-02	1.19E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.76E-01	1.84E-02	2.39E+04	2.81E+08	5.99E-05	4.80E-07	8.17E-03	7.40E-03
Triglops scepticus	200-600	5.70E+01	1.45E+03	1.06E+06	4.98E+11	2.74E-02	5.17E-02	5.11E-01	1.78E+01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.70E+01	1.45E+03	1.06E+06	4.98E+11	1.70E-02	3.21E-02	3.16E-01	1.11E+01
Zesticelus profundorum	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.47E-01	3.02E-03	5.47E+04	4.81E+08	1.28E-04	2.44E-07	4.58E-02	3.32E-02
	All Depths	1.47E-01	3.02E-03	5.47E+04	4.81E+08	4.87E-05	9.63E-08	1.74E-02	1.31E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Oncorhynchus keta	200-600	1.10E+01	6.90E+01	7.03E+03	2.48E+07	5.66E-03	2.46E-03	3.78E-03	1.02E-03
	600-1200	7.27E+00	2.93E+01	7.61E+03	3.19E+07	5.57E-03	1.36E-03	5.85E-03	1.49E-03
	All Depths	1.82E+01	9.84E+01	1.46E+04	5.66E+07	5.63E-03	2.03E-03	4.57E-03	1.20E-03
Thaleichthys pacificus	200-600	2.14E+01	1.02E+02	4.71E+05	4.12E+10	1.24E-02	5.13E-03	2.73E-01	2.10E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.14E+01	1.02E+02	4.71E+05	4.12E+10	7.70E-03	3.20E-03	1.69E-01	1.31E+00
Clupea pallasi	200-600	3.79E+00	7.36E+00	8.27E+03	3.63E+07	2.32E-03	3.97E-04	5.07E-03	1.99E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.79E+00	7.36E+00	8.27E+03	3.63E+07	1.43E-03	2.46E-04	3.14E-03	1.24E-03
Bathyagonus alascanus	200-600	6.42E-02	2.10E-03	9.18E+03	4.22E+07	3.15E-05	7.08E-08	4.64E-03	1.60E-03
	600-1200	1.23E-02	1.52E-04	3.09E+03	9.52E+06	1.19E-05	1.24E-08	2.96E-03	7.74E-04
	All Depths	7.65E-02	2.25E-03	1.23E+04	5.17E+07	2.40E-05	4.85E-08	4.00E-03	1.28E-03
Bathyagonus nigripinnis	200-600	4.70E+01	1.66E+02	3.07E+06	5.11E+11	2.76E-02	9.94E-03	1.78E+00	3.05E+01
	600-1200	4.25E+01	5.67E+01	4.03E+06	5.61E+11	3.40E-02	4.66E-03	3.13E+00	3.58E+01
	All Depths	8.95E+01	2.23E+02	7.10E+06	1.07E+12	3.00E-02	7.91E-03	2.30E+00	3.28E+01
Leptagonus frenatus	200-600	4.06E+02	1.17E+04	7.72E+06	3.97E+12	2.22E-01	5.84E-01	4.19E+00	1.99E+02
	600-1200	4.49E+00	9.00E+00	7.89E+04	2.84E+09	3.46E-03	4.10E-04	5.97E-02	1.23E-01
	All Depths	4.11E+02	1.17E+04	7.80E+06	3.98E+12	1.38E-01	3.72E-01	2.62E+00	1.27E+02
Percis japonicus	200-600	1.48E+00	2.18E+00	9.17E+03	8.40E+07	5.96E-04	5.08E-05	3.70E-03	1.96E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.48E+00	2.18E+00	9.17E+03	8.40E+07	3.69E-04	3.15E-05	2.29E-03	1.21E-03
Lampetra tridentata	200-600	7.37E+01	2.16E+02	2.19E+05	2.00E+09	4.13E-02	9.78E-03	1.20E-01	8.06E-02
	600-1200	2.93E+01	5.80E+01	7.33E+04	3.19E+08	1.82E-02	1.92E-03	4.52E-02	1.03E-02
	All Depths	1.03E+02	2.74E+02	2.92E+05	2.32E+09	3.25E-02	6.89E-03	9.12E-02	5.50E-02
Bathymaster signatus	200-600	8.31E+01	1.19E+03	4.76E+05	4.39E+10	4.50E-02	5.20E-02	2.60E-01	1.92E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	8.31E+01	1.19E+03	4.76E+05	4.39E+10	2.79E-02	3.26E-02	1.61E-01	1.20E+00
Alepocephalidae	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	5.30E-01	2.75E-01	6.59E+03	2.21E+07	3.57E-04	1.09E-05	5.14E-03	1.15E-03
	All Depths	5.30E-01	2.75E-01	6.59E+03	2.21E+07	1.36E-04	4.15E-06	1.96E-03	4.41E-04
Alepisaurus ferox	200-600	7.19E+01	1.28E+03	1.04E+04	2.65E+07	4.47E-02	7.27E-02	6.44E-03	1.46E-03
	600-1200	1.19E+01	1.43E+02	2.24E+03	5.01E+06	1.09E-02	1.05E-02	2.04E-03	3.68E-04
	All Depths	8.38E+01	1.42E+03	1.26E+04	3.15E+07	3.18E-02	4.91E-02	4.77E-03	1.05E-03
Lumpenella longirostris	200-600	7.00E+00	8.27E+00	8.74E+04	1.42E+09	3.50E-03	3.21E-04	4.17E-02	4.65E-02
	600-1200	3.21E+00	6.69E+00	5.74E+04	1.75E+09	1.99E-03	2.49E-04	3.56E-02	6.90E-02
	All Depths	1.02E+01	1.50E+01	1.45E+05	3.17E+09	2.92E-03	2.93E-04	3.93E-02	5.48E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Bothrocara cf. *brunneum* group	200-600	1.46E+04	2.57E+06	9.47E+06	3.51E+12	2.44E+00	1.90E+02	2.46E+00	1.89E+02
	600-1200	1.15E+04	1.99E+06	1.15E+07	5.47E+12	1.94E+00	7.45E+01	3.81E+00	2.15E+02
	All Depths	2.61E+04	4.56E+06	2.09E+07	8.99E+12	2.25E+00	1.46E+02	2.97E+00	1.99E+02
Bothrocara pusillum	200-600	6.42E-02	4.12E-03	4.58E+03	2.10E+07	2.59E-05	9.61E-08	1.85E-03	4.90E-04
	600-1200	1.15E+00	4.03E-01	1.29E+05	4.10E+09	7.38E-04	1.31E-05	9.17E-02	2.16E-01
	All Depths	1.22E+00	4.07E-01	1.33E+05	4.12E+09	2.97E-04	5.13E-06	3.61E-02	8.40E-02
Lycenchelys crotalinus	200-600	3.38E+00	2.86E+00	2.84E+04	2.09E+08	1.63E-03	1.01E-04	1.35E-02	6.89E-03
	600-1200	2.65E+01	1.02E+02	2.83E+05	1.18E+10	1.83E-02	4.69E-03	1.96E-01	5.48E-01
	All Depths	2.99E+01	1.05E+02	3.11E+05	1.20E+10	7.99E-03	1.90E-03	8.31E-02	2.20E-01
Lycenchelys sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.16E-01	1.91E-02	3.65E+04	1.38E+08	1.91E-04	6.20E-07	2.28E-02	8.36E-03
	All Depths	3.16E-01	1.91E-02	3.65E+04	1.38E+08	7.28E-05	2.43E-07	8.68E-03	3.28E-03
Lycenchelys camchatica	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.04E-02	4.14E-04	2.54E+03	6.47E+06	1.88E-05	3.11E-08	2.35E-03	4.86E-04
	All Depths	2.04E-02	4.14E-04	2.54E+03	6.47E+06	7.16E-06	1.19E-08	8.96E-04	1.85E-04
Lycodapus fierasfer	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	6.32E-01	2.21E-01	1.25E+05	8.86E+09	6.03E-04	2.06E-05	1.19E-01	8.25E-01
	All Depths	6.32E-01	2.21E-01	1.25E+05	8.86E+09	2.30E-04	7.89E-06	4.55E-02	3.15E-01
Lycodes concolor	200-600	1.33E+03	9.25E+04	1.24E+06	8.29E+10	6.12E-01	2.89E+00	6.23E-01	3.05E+00
	600-1200	8.60E+02	1.94E+05	1.26E+06	2.48E+11	6.36E-01	8.16E+00	9.67E-01	1.16E+01
	All Depths	2.19E+03	2.86E+05	2.50E+06	3.31E+11	6.21E-01	4.88E+00	7.55E-01	6.33E+00
Lycodes diapterus	200-600	2.43E+02	9.92E+02	3.95E+06	2.10E+11	1.32E-01	5.28E-02	2.17E+00	1.27E+01
	600-1200	9.19E+01	2.98E+02	2.18E+06	1.86E+11	6.71E-02	1.66E-02	1.61E+00	1.03E+01
	All Depths	3.35E+02	1.29E+03	6.13E+06	3.96E+11	1.07E-01	3.98E-02	1.96E+00	1.18E+01
Lycodes brevipes	200-600	1.32E+01	3.50E+01	1.69E+05	5.36E+09	5.32E-03	1.00E-03	6.84E-02	1.56E-01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.32E+01	3.50E+01	1.69E+05	5.36E+09	3.30E-03	6.24E-04	4.23E-02	9.73E-02
Bothrocara sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.85E+00	2.50E+00	2.53E+05	1.15E+10	2.76E-03	2.56E-04	2.43E-01	1.32E+00
	All Depths	2.85E+00	2.50E+00	2.53E+05	1.15E+10	1.05E-03	9.85E-05	9.27E-02	5.15E-01
Lycodapus sp.	200-600	9.16E-01	3.94E-02	2.64E+05	4.95E+09	5.32E-04	2.21E-06	1.59E-01	3.15E-01
	600-1200	6.49E-01	3.94E-02	1.36E+05	1.27E+09	4.67E-04	2.05E-06	1.02E-01	7.22E-02
	All Depths	1.56E+00	7.88E-02	4.00E+05	6.22E+09	5.07E-04	2.14E-06	1.37E-01	2.22E-01
Puzanovia rubra	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.13E+00	1.27E+00	4.44E+04	1.97E+09	7.23E-04	4.60E-05	2.85E-02	7.17E-02
	All Depths	1.13E+00	1.27E+00	4.44E+04	1.97E+09	2.75E-04	1.75E-05	1.09E-02	2.73E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Aptocyclus ventricosus	200-600	1.40E+02	1.56E+03	7.72E+04	4.96E+08	6.97E-02	5.33E-02	3.72E-02	1.47E-02
	600-1200	8.47E+01	5.37E+02	1.04E+05	4.66E+08	5.87E-02	2.49E-02	6.68E-02	1.61E-02
	All Depths	2.25E+02	2.10E+03	1.81E+05	9.61E+08	6.55E-02	4.24E-02	4.85E-02	1.54E-02
Liparidinae	200-600	1.59E-01	7.34E-03	3.24E+04	2.31E+08	8.18E-05	2.69E-07	1.68E-02	8.75E-03
	600-1200	4.12E+00	1.36E+00	3.35E+05	5.56E+09	3.08E-03	9.08E-05	2.48E-01	3.60E-01
	All Depths	4.28E+00	1.37E+00	3.68E+05	5.79E+09	1.22E-03	3.67E-05	1.05E-01	1.54E-01
Crystallichthys cyclospilus	200-600	3.72E+01	9.23E+02	6.53E+04	2.56E+09	2.14E-02	4.42E-02	3.76E-02	1.23E-01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.72E+01	9.23E+02	6.53E+04	2.56E+09	1.32E-02	2.74E-02	2.33E-02	7.62E-02
Elassodiscus sp.	200-600	1.25E-01	1.55E-02	4.28E+04	1.83E+09	5.90E-05	4.97E-07	2.03E-02	5.88E-02
	600-1200	1.44E-01	1.19E-02	2.56E+04	3.83E+08	8.92E-05	3.96E-07	1.58E-02	1.27E-02
	All Depths	2.69E-01	2.74E-02	6.84E+04	2.22E+09	7.05E-05	4.57E-07	1.86E-02	4.11E-02
Elassodiscus caudatus	200-600	4.68E+00	3.61E+00	1.17E+05	2.17E+09	2.51E-03	1.67E-04	6.50E-02	8.93E-02
	600-1200	1.14E+02	4.36E+02	1.65E+06	4.60E+10	9.01E-02	3.20E-02	1.30E+00	3.53E+00
	All Depths	1.19E+02	4.40E+02	1.76E+06	4.82E+10	3.59E-02	1.40E-02	5.37E-01	1.75E+00
Elassodiscus tremebundus	200-600	9.36E-01	8.76E-01	8.67E+03	7.51E+07	3.84E-04	2.11E-05	3.55E-03	1.80E-03
	600-1200	1.85E+02	6.19E+03	2.10E+06	1.40E+12	1.05E-01	1.44E-01	1.04E+00	2.91E+01
	All Depths	1.86E+02	6.19E+03	2.11E+06	1.40E+12	4.02E-02	5.71E-02	3.98E-01	1.13E+01
Allocareproctus jordani	200-600	9.07E-02	8.23E-03	3.49E+03	1.22E+07	4.50E-05	2.89E-07	1.73E-03	4.28E-04
	600-1200	2.71E-01	7.37E-02	9.69E+03	9.39E+07	2.61E-04	5.99E-06	9.31E-03	7.63E-03
	All Depths	3.62E-01	8.19E-02	1.32E+04	1.06E+08	1.27E-04	2.45E-06	4.62E-03	3.17E-03
Careproctus sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	4.14E+00	1.50E+01	9.17E+04	4.72E+09	2.00E-03	2.78E-04	5.20E-02	9.27E-02
	All Depths	4.14E+00	1.50E+01	9.17E+04	4.72E+09	7.62E-04	1.06E-04	1.98E-02	3.57E-02
Careproctus melanurus	200-600	1.40E+02	1.93E+03	1.31E+05	2.00E+09	7.43E-02	7.54E-02	6.94E-02	7.39E-02
	600-1200	3.19E+02	5.03E+03	6.58E+05	1.44E+10	2.47E-01	2.69E-01	4.90E-01	6.87E-01
	All Depths	4.59E+02	6.96E+03	7.88E+05	1.64E+10	1.40E-01	1.55E-01	2.29E-01	3.47E-01
Careproctus bowersianus	200-600	6.24E-02	3.90E-03	3.90E+03	1.52E+07	3.10E-05	1.37E-07	1.93E-03	5.35E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.24E-02	3.90E-03	3.90E+03	1.52E+07	1.92E-05	8.48E-08	1.20E-03	3.31E-04
Careproctus simis	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	7.97E-01	1.91E-01	3.73E+04	3.97E+08	6.14E-04	1.02E-05	2.80E-02	1.90E-02
	All Depths	7.97E-01	1.91E-01	3.73E+04	3.97E+08	2.34E-04	3.95E-06	1.07E-02	7.37E-03
Careproctus ectenes	200-600	2.79E-02	7.79E-04	3.49E+03	1.22E+07	1.38E-05	2.74E-08	1.73E-03	4.28E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.79E-02	7.79E-04	3.49E+03	1.22E+07	8.57E-06	1.70E-08	1.07E-03	2.65E-04

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Careproctus cypselurus	200-600	2.54E+01	8.22E+01	1.54E+05	3.07E+09	1.17E-02	2.81E-03	7.17E-02	1.02E-01
	600-1200	5.38E+01	1.35E+02	5.36E+05	7.82E+09	3.69E-02	5.28E-03	3.77E-01	5.18E-01
	All Depths	7.92E+01	2.17E+02	6.90E+05	1.09E+10	2.13E-02	3.88E-03	1.88E-01	2.81E-01
Careproctus furcellus	200-600	4.02E+02	5.63E+03	5.23E+05	9.32E+09	1.99E-01	2.12E-01	2.69E-01	3.41E-01
	600-1200	4.69E+01	1.05E+02	3.04E+05	5.37E+09	3.72E-02	6.56E-03	2.36E-01	2.84E-01
	All Depths	4.48E+02	5.74E+03	8.27E+05	1.47E+10	1.37E-01	1.40E-01	2.57E-01	3.18E-01
Paraliparis ulochir	200-600	1.26E-02	1.58E-04	3.14E+03	9.86E+06	5.95E-06	5.06E-09	1.49E-03	3.16E-04
	600-1200	2.20E-01	2.36E-02	2.47E+04	2.70E+08	2.03E-04	1.72E-06	2.30E-02	2.00E-02
	All Depths	2.33E-01	2.37E-02	2.78E+04	2.80E+08	8.12E-05	6.64E-07	9.70E-03	7.87E-03
Careproctus gilberti	200-600	3.89E-01	2.35E-02	4.99E+04	3.78E+08	2.46E-04	1.46E-06	3.14E-02	2.31E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.89E-01	2.35E-02	4.99E+04	3.78E+08	1.52E-04	9.15E-07	1.94E-02	1.45E-02
Careproctus sp. cf. *gilberti*	200-600	8.58E-02	2.64E-03	1.55E+04	8.81E+07	4.97E-05	1.25E-07	8.86E-03	4.00E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	8.58E-02	2.64E-03	1.55E+04	8.81E+07	3.08E-05	7.80E-08	5.49E-03	2.49E-03
Careproctus colletti	200-600	7.76E+01	3.48E+02	2.29E+05	3.12E+09	3.35E-02	1.53E-02	1.00E-01	1.40E-01
	600-1200	3.45E+01	7.75E+01	2.66E+05	6.53E+09	2.30E-02	3.45E-03	1.72E-01	2.91E-01
	All Depths	1.12E+02	4.25E+02	4.95E+05	9.65E+09	2.95E-02	1.08E-02	1.27E-01	1.98E-01
Careproctus rastrinus	200-600	4.80E+02	1.16E+04	1.65E+06	6.87E+10	2.73E-01	6.91E-01	8.96E-01	4.06E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.80E+02	1.16E+04	1.65E+06	6.87E+10	1.69E-01	4.44E-01	5.55E-01	2.70E+00
Paraliparis dactylosus	200-600	2.19E-01	1.88E-02	1.54E+04	9.08E+07	1.21E-04	7.38E-07	8.54E-03	3.69E-03
	600-1200	6.34E-01	4.90E-02	5.36E+04	3.04E+08	4.91E-04	2.38E-06	4.18E-02	1.58E-02
	All Depths	8.54E-01	6.78E-02	6.90E+04	3.94E+08	2.62E-04	1.39E-06	2.12E-02	8.52E-03
Paraliparis cephalus	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	4.60E-02	1.06E-03	9.54E+03	4.70E+07	4.15E-05	7.65E-08	8.90E-03	3.85E-03
	All Depths	4.60E-02	1.06E-03	9.54E+03	4.70E+07	1.58E-05	2.93E-08	3.39E-03	1.47E-03
Careproctus sp. H (Orr)	200-600	3.86E-02	1.49E-03	3.22E+03	1.04E+07	2.22E-05	7.06E-08	1.85E-03	4.90E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.86E-02	1.49E-03	3.22E+03	1.04E+07	1.38E-05	4.37E-08	1.15E-03	3.03E-04
Paraliparis pectoralis	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.56E+00	5.87E-01	8.34E+04	1.26E+09	9.68E-04	1.58E-05	6.38E-02	6.16E-02
	All Depths	1.56E+00	5.87E-01	8.34E+04	1.26E+09	3.69E-04	6.20E-06	2.43E-02	2.43E-02
Paraliparis sp.	200-600	7.78E-03	6.06E-05	3.89E+03	1.51E+07	3.69E-06	1.94E-09	1.84E-03	4.86E-04
	600-1200	2.81E-01	1.60E-02	3.75E+04	2.38E+08	2.26E-04	8.27E-07	3.15E-02	1.48E-02
	All Depths	2.88E-01	1.60E-02	4.13E+04	2.53E+08	8.85E-05	3.26E-07	1.32E-02	6.11E-03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (t)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no./ha	CPUE variance
Lipariscus nanus	200-600	4.88E-02	8.50E-04	2.14E+04	2.18E+08	2.97E-05	4.78E-08	1.30E-02	1.21E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.88E-02	8.50E-04	2.14E+04	2.18E+08	1.84E-05	2.97E-08	8.03E-03	7.54E-03
Nectoliparis pelagicus	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	5.70E-03	3.24E-05	2.85E+03	8.11E+06	5.26E-06	2.44E-09	2.63E-03	6.09E-04
	All Depths	5.70E-03	3.24E-05	2.85E+03	8.11E+06	2.01E-06	9.29E-10	1.00E-03	2.32E-04
Rhinoliparis sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.83E-01	3.46E-02	4.55E+04	5.12E+08	2.98E-04	1.77E-06	3.53E-02	2.65E-02
	All Depths	3.83E-01	3.46E-02	4.55E+04	5.12E+08	1.14E-04	6.91E-07	1.35E-02	1.03E-02
Rhinoliparis barbulifer	200-600	1.66E-01	1.95E-02	7.56E+03	2.99E+07	1.06E-04	1.14E-06	4.81E-03	1.77E-03
	600-1200	1.56E-01	1.50E-02	1.81E+04	2.30E+08	1.44E-04	1.20E-06	1.67E-02	1.80E-02
	All Depths	3.23E-01	3.46E-02	2.57E+04	2.60E+08	1.21E-04	1.16E-06	9.35E-03	7.95E-03
Rhinoliparis attenuatus	200-600	7.75E-02	1.29E-03	2.07E+04	9.29E+07	4.78E-05	6.94E-08	1.28E-02	5.08E-03
	600-1200	2.48E-01	2.43E-02	3.01E+04	3.47E+08	2.31E-04	2.06E-06	2.81E-02	2.94E-02
	All Depths	3.25E-01	2.56E-02	5.09E+04	4.40E+08	1.18E-04	8.29E-07	1.87E-02	1.43E-02
Rouleina attrita	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.08E-01	1.17E-02	2.84E+03	8.09E+06	9.99E-05	8.77E-07	2.63E-03	6.08E-04
	All Depths	1.08E-01	1.17E-02	2.84E+03	8.09E+06	3.80E-05	3.34E-07	1.00E-03	2.31E-04
Bathylagus pacificus	200-600	1.77E-01	3.12E-02	2.94E+03	8.66E+06	1.12E-04	1.81E-06	1.87E-03	5.03E-04
	600-1200	2.76E+01	8.60E+01	1.01E+06	8.02E+10	2.34E-02	7.12E-03	8.42E-01	6.55E+00
	All Depths	2.78E+01	8.60E+01	1.01E+06	8.02E+10	9.00E-03	2.82E-03	3.22E-01	2.64E+00
Bathylagus sp.	200-600	7.35E-02	5.40E-03	2.45E+03	6.00E+06	4.68E-05	3.13E-07	1.56E-03	3.48E-04
	600-1200	1.01E+02	4.54E+02	3.52E+06	3.75E+11	7.10E-02	3.01E-02	2.41E+00	2.53E+01
	All Depths	1.01E+02	4.54E+02	3.52E+06	3.75E+11	2.71E-02	1.26E-02	9.19E-01	1.09E+01
Bathylagus milleri	200-600	2.79E-01	7.76E-02	5.16E+03	2.66E+07	1.77E-04	4.50E-06	3.28E-03	1.54E-03
	600-1200	1.72E+00	6.04E-01	4.28E+04	4.04E+08	1.10E-03	1.92E-05	2.63E-02	1.04E-02
	All Depths	1.99E+00	6.82E-01	4.79E+04	4.31E+08	5.29E-04	1.02E-05	1.20E-02	5.00E-03
Leuroglossus schmidti	200-600	1.67E+02	4.92E+03	2.19E+07	6.21E+13	9.36E-02	1.80E-01	1.25E+01	2.51E+03
	600-1200	2.55E+01	1.66E+01	2.82E+06	1.78E+11	2.08E-02	1.41E-03	2.33E+00	1.53E+01
	All Depths	1.92E+02	4.93E+03	2.47E+07	6.23E+13	6.59E-02	1.13E-01	8.61E+00	1.58E+03
Bathylagus ochotensis	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	4.41E-01	4.53E-02	2.73E+04	1.39E+08	4.08E-04	3.75E-06	2.31E-02	8.07E-03
	All Depths	4.41E-01	4.53E-02	2.73E+04	1.39E+08	1.55E-04	1.46E-06	8.79E-03	3.18E-03
Chauliodus macouni	200-600	4.02E-01	1.28E-01	1.10E+04	4.44E+07	2.50E-04	7.40E-06	6.44E-03	2.24E-03
	600-1200	2.32E+01	1.91E+01	8.19E+05	2.16E+10	1.33E-02	7.09E-04	4.73E-01	1.17E+00
	All Depths	2.36E+01	1.92E+01	8.30E+05	2.16E+10	5.24E-03	3.13E-04	1.84E-01	4.96E-01

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Sigmops gracilis	200-600	1.28E-01	6.32E-03	1.35E+04	6.17E+07	8.17E-05	3.78E-07	8.58E-03	3.72E-03
	600-1200	2.02E-01	5.62E-03	2.64E+04	9.70E+07	1.74E-04	4.07E-07	2.23E-02	6.73E-03
	All Depths	3.31E-01	1.19E-02	3.99E+04	1.59E+08	1.17E-04	3.90E-07	1.38E-02	4.89E-03
Cyclothone sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.58E-02	6.66E-04	1.72E+04	2.96E+08	1.66E-05	2.42E-08	1.11E-02	1.07E-02
	All Depths	2.58E-02	6.66E-04	1.72E+04	2.96E+08	6.31E-06	9.21E-09	4.21E-03	4.09E-03
Poromitra crassiceps	200-600	3.11E-01	6.78E-02	1.50E+04	1.54E+08	1.98E-04	3.97E-06	9.53E-03	9.04E-03
	600-1200	1.86E+00	3.99E-01	6.92E+04	4.55E+08	1.56E-03	2.84E-05	5.92E-02	3.99E-02
	All Depths	2.17E+00	4.67E-01	8.42E+04	6.09E+08	7.18E-04	1.36E-05	2.85E-02	2.13E-02
Melamphaes lugubris	200-600	5.19E-01	5.41E-02	2.22E+04	1.11E+08	3.31E-04	3.39E-06	1.41E-02	6.86E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.19E-01	5.41E-02	2.22E+04	1.11E+08	2.05E-04	2.12E-06	8.74E-03	4.29E-03
Allocyttus folletti	200-600	2.85E+00	8.12E+00	2.96E+03	8.78E+06	1.82E-03	4.71E-04	1.89E-03	5.09E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.85E+00	8.12E+00	2.96E+03	8.78E+06	1.12E-03	2.92E-04	1.17E-03	3.15E-04
Tactostoma macropus	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.58E-01	1.28E-01	4.16E+03	1.73E+07	2.40E-04	5.06E-06	2.79E-03	6.85E-04
	All Depths	3.58E-01	1.28E-01	4.16E+03	1.73E+07	9.14E-05	1.93E-06	1.06E-03	2.61E-04
Caristius macropus	200-600	1.79E+00	3.22E+00	5.16E+03	2.66E+07	1.14E-03	1.87E-04	3.28E-03	1.54E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.79E+00	3.22E+00	5.16E+03	2.66E+07	7.08E-04	1.16E-04	2.03E-03	9.55E-04
Myctophidae	200-600	1.04E-01	4.34E-03	3.39E+04	5.35E+08	5.17E-05	1.97E-07	1.68E-02	2.30E-02
	600-1200	3.07E-01	9.42E-02	4.91E+04	2.41E+09	1.89E-04	3.16E-06	3.03E-02	8.08E-02
	All Depths	4.11E-01	9.86E-02	8.30E+04	2.95E+09	1.04E-04	1.32E-06	2.19E-02	4.48E-02
Stenobrachius sp.	200-600	2.15E+01	1.06E+02	2.38E+06	1.13E+12	1.32E-02	6.35E-03	1.44E+00	6.71E+01
	600-1200	3.08E+01	9.24E+00	3.79E+06	1.35E+11	2.25E-02	6.42E-04	2.83E+00	1.05E+01
	All Depths	5.23E+01	1.15E+02	6.17E+06	1.26E+12	1.68E-02	4.18E-03	1.97E+00	4.58E+01
Stenobrachius leucopsarus	200-600	5.33E+00	3.28E+00	7.42E+05	7.25E+10	2.62E-03	1.05E-04	3.52E-01	2.15E+00
	600-1200	7.96E+00	2.02E+00	1.13E+06	4.24E+10	5.75E-03	9.10E-05	8.12E-01	1.81E+00
	All Depths	1.33E+01	5.30E+00	1.87E+06	1.15E+11	3.81E-03	1.01E-04	5.27E-01	2.06E+00
Stenobrachius nannochir	200-600	2.81E-02	7.87E-04	2.81E+03	7.87E+06	1.79E-05	4.57E-08	1.79E-03	4.57E-04
	600-1200	2.31E-01	2.13E-02	1.90E+04	1.58E+08	1.57E-04	8.01E-07	1.32E-02	6.32E-03
	All Depths	2.59E-01	2.21E-02	2.18E+04	1.66E+08	7.09E-05	3.36E-07	6.13E-03	2.70E-03
Diaphus theta	200-600	8.03E-01	7.90E-02	6.39E+04	4.58E+08	4.81E-04	4.44E-06	3.82E-02	2.59E-02
	600-1200	3.07E-01	3.01E-02	2.29E+04	1.37E+08	2.68E-04	2.28E-06	1.99E-02	1.04E-02
	All Depths	1.11E+00	1.09E-01	8.67E+04	5.95E+08	4.00E-04	3.62E-06	3.12E-02	2.00E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Lampanyctus sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.69E-01	1.55E-02	8.51E+03	3.80E+07	1.70E-04	1.43E-06	8.54E-03	3.44E-03
	All Depths	1.69E-01	1.55E-02	8.51E+03	3.80E+07	6.48E-05	5.46E-07	3.25E-03	1.32E-03
Lampanyctus jordani	200-600	1.99E+01	5.88E+01	5.98E+05	5.07E+10	1.25E-02	3.68E-03	3.74E-01	3.18E+00
	600-1200	8.83E+00	4.22E+00	2.79E+05	4.17E+09	7.17E-03	2.86E-04	2.26E-01	2.79E-01
	All Depths	2.87E+01	6.30E+01	8.77E+05	5.49E+10	1.04E-02	2.38E-03	3.18E-01	2.07E+00
Nannobrachium regale	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.18E+00	3.84E-01	2.31E+04	1.51E+08	1.06E-03	3.37E-05	2.04E-02	1.26E-02
	All Depths	1.18E+00	3.84E-01	2.31E+04	1.51E+08	4.03E-04	1.30E-05	7.76E-03	4.85E-03
Protomyctophum sp.	200-600	1.11E-02	1.23E-04	2.77E+03	7.70E+06	7.07E-06	7.14E-09	1.77E-03	4.46E-04
	600-1200	3.33E-02	1.11E-03	8.31E+03	6.91E+07	2.23E-05	4.38E-08	5.58E-03	2.74E-03
	All Depths	4.44E-02	1.23E-03	1.11E+04	7.68E+07	1.29E-05	2.10E-08	3.22E-03	1.32E-03
Nemichthyidae	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.36E-01	1.86E-02	9.74E+03	9.49E+07	8.45E-05	6.28E-07	6.03E-03	3.20E-03
	All Depths	1.36E-01	1.86E-02	9.74E+03	9.49E+07	3.22E-05	2.39E-07	2.30E-03	1.22E-03
Avocettina infans	200-600	1.75E-02	3.05E-04	2.91E+03	8.46E+06	1.11E-05	1.77E-08	1.85E-03	4.91E-04
	600-1200	6.53E-02	2.41E-03	5.99E+03	1.66E+07	5.97E-05	1.86E-07	5.48E-03	1.30E-03
	All Depths	8.28E-02	2.72E-03	8.90E+03	2.50E+07	2.96E-05	8.16E-08	3.23E-03	7.99E-04
Oneirodes sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	9.69E-01	6.08E-01	7.15E+03	2.71E+07	6.95E-04	2.33E-05	5.59E-03	1.36E-03
	All Depths	9.69E-01	6.08E-01	7.15E+03	2.71E+07	2.65E-04	8.93E-06	2.13E-03	5.22E-04
Oneirodes bulbosus	200-600	3.72E-01	1.38E-01	5.81E+03	3.37E+07	2.37E-04	8.02E-06	3.70E-03	1.96E-03
	600-1200	4.27E+00	2.35E+00	4.57E+04	3.44E+08	2.98E-03	1.10E-04	2.90E-02	9.69E-03
	All Depths	4.64E+00	2.49E+00	5.15E+04	3.78E+08	1.28E-03	4.82E-05	1.33E-02	5.02E-03
Oneirodes thompsoni	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.45E+01	6.39E+00	1.18E+05	5.35E+08	7.52E-03	4.42E-04	6.62E-02	2.46E-02
	All Depths	1.45E+01	6.39E+00	1.18E+05	5.35E+08	2.86E-03	1.81E-04	2.52E-02	1.03E-02
Benthalbella dentata	200-600	5.17E-01	1.35E-01	7.71E+03	3.08E+07	3.29E-04	7.98E-06	4.91E-03	1.82E-03
	600-1200	7.74E-01	1.02E-01	2.99E+04	1.34E+08	5.60E-04	5.27E-06	2.42E-02	9.78E-03
	All Depths	1.29E+00	2.36E-01	3.77E+04	1.65E+08	4.17E-04	6.93E-06	1.23E-02	4.91E-03
Sagamichthys abei	200-600	1.00E-01	1.01E-02	3.13E+03	9.83E+06	5.77E-05	4.76E-07	1.80E-03	4.65E-04
	600-1200	3.48E-02	1.21E-03	4.36E+03	1.90E+07	2.15E-05	4.08E-08	2.69E-03	6.37E-04
	All Depths	1.35E-01	1.13E-02	7.49E+03	2.88E+07	4.39E-05	3.10E-07	2.14E-03	5.28E-04
Macropinna microstoma	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	8.81E-01	2.97E-01	1.97E+04	1.40E+08	5.13E-04	8.91E-06	1.15E-02	3.94E-03
	All Depths	8.81E-01	2.97E-01	1.97E+04	1.40E+08	1.96E-04	3.43E-06	4.36E-03	1.52E-03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Bathyraja sp. egg case	200-600	3.45E+05	1.22E+08	2.90E+08	1.25E+14	3.85E+00	1.90E+02	3.01E+00	1.52E+02
	600-1200	1.54E+04	1.59E+06	1.34E+07	1.18E+12	4.45E-01	4.22E+00	4.09E-01	3.24E+00
	All Depths	3.60E+05	1.23E+08	3.04E+08	1.26E+14	4.29E+00	2.00E+02	3.42E+00	2.06E+02
Hemitripterus bolini eggs	200-600	7.60E+00	4.77E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.64E-01	2.70E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	7.76E+00	4.77E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fish Eggs	200-600	2.84E-02	8.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.84E-02	8.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hydrozoa	200-600	1.59E+00	8.63E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	9.51E-02	4.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.69E+00	8.67E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Scyphozoa	200-600	2.03E+01	9.89E+01	4.33E+04	1.52E+08	1.19E-02	5.06E-03	2.50E-02	7.21E-03
	600-1200	3.23E+01	7.39E+01	1.17E+05	4.16E+08	2.46E-02	3.67E-03	8.59E-02	2.46E-02
	All Depths	5.26E+01	1.73E+02	1.60E+05	5.67E+08	1.67E-02	4.55E-03	4.83E-02	1.47E-02
Chrysaora sp.	200-600	1.94E+01	3.76E+02	1.52E+04	2.32E+08	1.17E-02	1.96E-02	9.20E-03	1.21E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.94E+01	3.76E+02	1.52E+04	2.32E+08	7.25E-03	1.21E-02	5.70E-03	7.49E-03
Periphylla periphylla	200-600	1.81E-01	1.15E-02	1.38E+04	5.03E+07	9.49E-05	4.16E-07	7.64E-03	2.09E-03
	600-1200	2.70E+00	4.60E-01	1.42E+05	7.21E+08	1.97E-03	2.27E-05	1.09E-01	5.16E-02
	All Depths	2.88E+00	4.72E-01	1.56E+05	7.71E+08	8.08E-04	9.69E-06	4.63E-02	2.33E-02
Chrysaora melanaster	200-600	4.84E+02	4.34E+03	6.18E+05	7.02E+09	2.26E-01	1.66E-01	2.95E-01	2.66E-01
	600-1200	2.21E+02	9.70E+02	2.94E+05	1.32E+09	1.42E-01	4.50E-02	1.91E-01	5.98E-02
	All Depths	7.05E+02	5.31E+03	9.12E+05	8.33E+09	1.94E-01	1.21E-01	2.55E-01	1.89E-01
Aequorea sp.	200-600	2.99E-01	3.40E-02	1.66E+04	1.25E+08	1.82E-04	1.93E-06	1.01E-02	6.99E-03
	600-1200	2.52E+00	5.71E-01	8.21E+04	5.59E+08	1.83E-03	2.44E-05	5.91E-02	2.33E-02
	All Depths	2.82E+00	6.05E-01	9.86E+04	6.84E+08	8.11E-04	1.11E-05	2.87E-02	1.37E-02
Aurelia sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.91E+00	4.27E+00	1.13E+04	4.49E+07	2.38E-03	2.78E-04	8.75E-03	2.20E-03
	All Depths	2.91E+00	4.27E+00	1.13E+04	4.49E+07	9.08E-04	1.06E-04	3.33E-03	8.51E-04
Aurelia labiata	200-600	1.10E-01	1.21E-02	3.05E+03	9.30E+06	6.32E-05	5.70E-07	1.75E-03	4.40E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.10E-01	1.21E-02	3.05E+03	9.30E+06	3.91E-05	3.53E-07	1.09E-03	2.72E-04
Aurelia aurita	200-600	3.34E-01	1.12E-01	2.61E+03	6.83E+06	1.92E-04	5.29E-06	1.50E-03	3.23E-04
	600-1200	2.30E+00	5.27E+00	3.09E+03	9.58E+06	2.12E-03	3.96E-04	2.86E-03	7.19E-04
	All Depths	2.63E+00	5.38E+00	5.71E+03	1.64E+07	9.27E-04	1.54E-04	2.02E-03	4.72E-04

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Cyanea capillata	200-600	3.12E+01	1.66E+02	5.10E+04	1.99E+08	1.86E-02	9.01E-03	2.94E-02	9.77E-03
	600-1200	2.02E+01	8.41E+01	4.44E+04	2.20E+08	1.72E-02	5.38E-03	3.58E-02	1.45E-02
	All Depths	5.13E+01	2.50E+02	9.54E+04	4.19E+08	1.81E-02	7.60E-03	3.18E-02	1.15E-02
Alcyonacea	200-600	3.58E-01	1.28E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.58E-01	1.28E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Anthomastus sp. A	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.93E-02	8.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.93E-02	8.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gorgonacea	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.95E-02	1.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.95E-02	1.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antipathes sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.57E+00	1.28E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.57E+00	1.28E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Swiftia sp.	200-600	3.92E-01	9.78E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.92E-01	9.78E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paragorgia arborea	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.60E+02	7.01E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.60E+02	7.01E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Virgularidae	200-600	9.70E+01	2.99E+03	1.39E+07	6.80E+13	3.95E-02	7.83E-02	5.66E+00	1.77E+03
	600-1200	1.27E+02	1.59E+04	2.42E+07	5.85E+14	5.06E-02	2.23E-01	9.66E+00	8.19E+03
	All Depths	2.24E+02	1.89E+04	3.81E+07	6.53E+14	4.37E-02	1.33E-01	7.19E+00	4.21E+03
Halipteris willemoesi	200-600	1.40E+00	9.95E-01	6.67E+04	1.11E+09	8.00E-04	4.27E-05	4.19E-02	6.67E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.40E+00	9.95E-01	6.67E+04	1.11E+09	4.95E-04	2.65E-05	2.59E-02	4.16E-02
Actiniaria	200-600	4.07E+01	1.38E+02	1.45E+06	2.53E+11	1.87E-02	4.35E-03	6.38E-01	6.58E+00
	600-1200	4.90E+01	1.35E+03	6.14E+06	2.04E+13	2.30E-02	1.92E-02	2.73E+00	3.02E+02
	All Depths	8.97E+01	1.49E+03	7.59E+06	2.07E+13	2.03E-02	9.96E-03	1.43E+00	1.19E+02
Actinauge verrillii	200-600	5.75E+01	3.52E+02	6.43E+05	5.11E+10	3.29E-02	1.62E-02	3.73E-01	2.49E+00
	600-1200	9.14E+02	6.31E+05	1.13E+08	9.67E+15	4.80E-01	1.47E+01	5.96E+01	2.26E+05
	All Depths	9.71E+02	6.31E+05	1.14E+08	9.67E+15	2.03E-01	5.64E+00	2.29E+01	8.65E+04
Paractinostola faeculenta	200-600	2.03E+03	8.18E+05	8.19E+06	2.17E+13	9.47E-01	2.77E+01	4.12E+00	8.91E+02
	600-1200	3.34E+02	3.97E+04	1.74E+06	9.68E+11	1.84E-01	1.10E+00	9.68E-01	2.80E+01
	All Depths	2.36E+03	8.58E+05	9.93E+06	2.26E+13	6.56E-01	1.76E+01	2.92E+00	5.63E+02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Stomphia sp.	200-600	2.16E+00	8.98E-01	1.62E+05	3.37E+09	1.27E-03	4.68E-05	9.46E-02	1.74E-01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.16E+00	8.98E-01	1.62E+05	3.37E+09	7.88E-04	2.93E-05	5.86E-02	1.09E-01
Stomphia coccinea	200-600	5.01E+00	6.56E+00	1.24E+05	3.57E+09	2.88E-03	3.31E-04	7.10E-02	1.82E-01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.01E+00	6.56E+00	1.24E+05	3.57E+09	1.78E-03	2.06E-04	4.40E-02	1.14E-01
Urticina crassicornis	200-600	5.59E-01	3.12E-01	3.17E+03	1.01E+07	3.21E-04	1.48E-05	1.83E-03	4.77E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.59E-01	3.12E-01	3.17E+03	1.01E+07	1.99E-04	9.14E-06	1.13E-03	2.95E-04
Urticina lofotensis	200-600	8.19E-01	1.61E-01	5.88E+04	9.58E+08	4.71E-04	8.16E-06	3.38E-02	4.81E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	8.19E-01	1.61E-01	5.88E+04	9.58E+08	2.92E-04	5.09E-06	2.09E-02	3.00E-02
Cribrinopsis fernaldi	200-600	3.58E+00	2.73E+00	9.70E+04	1.97E+09	1.95E-03	1.06E-04	5.38E-02	8.41E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.58E+00	2.73E+00	9.70E+04	1.97E+09	1.21E-03	6.65E-05	3.33E-02	5.26E-02
Liponema brevicornis	200-600	2.92E+03	2.09E+05	2.79E+07	1.60E+13	1.57E+00	7.27E+00	1.53E+01	7.94E+02
	600-1200	3.32E+01	8.90E+01	5.05E+05	2.50E+10	2.34E-02	4.68E-03	3.56E-01	1.38E+00
	All Depths	2.95E+03	2.09E+05	2.84E+07	1.60E+13	9.80E-01	5.06E+00	9.63E+00	5.44E+02
Actinostolidae	200-600	3.88E+00	4.72E+00	3.91E+05	4.72E+10	2.31E-03	2.30E-04	2.36E-01	2.46E+00
	600-1200	2.63E-02	6.90E-04	3.28E+03	1.08E+07	2.40E-05	5.06E-08	3.00E-03	7.91E-04
	All Depths	3.91E+00	4.72E+00	3.94E+05	4.72E+10	1.44E-03	1.43E-04	1.48E-01	1.53E+00
Isidella sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	9.80E+00	3.53E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	9.80E+00	3.53E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Keratoisis sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.39E+01	5.71E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.39E+01	5.71E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Amphilaphis sp.	200-600	1.53E+00	1.08E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.53E+00	1.08E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Polychaeta	200-600	1.77E+00	1.41E+00	9.83E+05	7.38E+11	1.13E-03	8.38E-05	6.26E-01	4.31E+01
	600-1200	2.37E+00	5.39E+00	4.80E+05	2.17E+11	2.17E-03	3.97E-04	4.38E-01	1.60E+01
	All Depths	4.14E+00	6.80E+00	1.46E+06	9.54E+11	1.52E-03	2.02E-04	5.55E-01	3.26E+01
Polychaeta	200-600	4.46E-02	1.99E-03	4.46E+03	1.99E+07	1.80E-05	4.64E-08	1.80E-03	4.64E-04
	600-1200	3.18E-01	5.74E-02	3.87E+04	1.16E+09	2.32E-04	2.44E-06	3.40E-02	8.42E-02
	All Depths	3.63E-01	5.94E-02	4.31E+04	1.18E+09	9.95E-05	9.62E-07	1.41E-02	3.24E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Polychaeta tubes	200-600	2.81E-02	7.90E-04	2.81E+03	7.90E+06	1.79E-05	4.58E-08	1.79E-03	4.58E-04
	600-1200	1.78E-01	3.19E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.07E-01	3.26E-02	2.81E+03	7.90E+06	1.11E-05	2.85E-08	1.11E-03	2.85E-04
Aphrodita sp.	200-600	1.27E+02	1.16E+03	8.80E+06	5.37E+12	6.26E-02	3.75E-02	4.71E+00	2.16E+02
	600-1200	3.93E+01	2.98E+02	3.51E+06	3.37E+12	3.52E-02	2.44E-02	3.19E+00	2.76E+02
	All Depths	1.66E+02	1.46E+03	1.23E+07	8.74E+12	5.22E-02	3.25E-02	4.13E+00	2.38E+02
Eunoe depressa	200-600	1.12E-02	1.26E-04	2.81E+03	7.90E+06	7.16E-06	7.33E-09	1.79E-03	4.58E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.12E-02	1.26E-04	2.81E+03	7.90E+06	4.43E-06	4.54E-09	1.11E-03	2.84E-04
Isopoda	200-600	9.18E-02	1.50E-03	2.16E+04	7.99E+07	5.38E-05	7.81E-08	1.26E-02	4.13E-03
	600-1200	1.37E-02	1.89E-04	3.43E+03	1.18E+07	1.46E-05	1.87E-08	3.64E-03	1.17E-03
	All Depths	1.06E-01	1.69E-03	2.50E+04	9.17E+07	3.89E-05	5.57E-08	9.18E-03	3.01E-03
Mysidacea	200-600	9.69E-03	9.38E-05	1.45E+04	2.11E+08	4.80E-06	3.30E-09	7.21E-03	7.42E-03
	600-1200	1.08E-02	5.11E-05	5.39E+03	1.28E+07	9.97E-06	4.33E-09	4.98E-03	1.08E-03
	All Depths	2.05E-02	1.45E-04	1.99E+04	2.24E+08	6.77E-06	3.68E-09	6.36E-03	4.99E-03
Gnathophausia ingens	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.37E-01	3.09E-03	7.27E+04	1.10E+09	8.47E-05	7.64E-08	4.51E-02	2.40E-02
	All Depths	1.37E-01	3.09E-03	7.27E+04	1.10E+09	3.23E-05	3.06E-08	1.72E-02	9.56E-03
Balanus evermanni	200-600	3.22E+01	9.65E+02	1.59E+04	2.53E+08	5.74E-04	4.69E-05	7.92E-03	8.91E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.22E+01	9.65E+02	1.59E+04	2.53E+08	3.55E-04	2.89E-05	4.89E-03	5.50E-03
Scalpellum cornutum	200-600	4.01E-02	6.71E-04	1.12E+04	4.18E+07	2.31E-05	3.28E-08	6.45E-03	2.07E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.01E-02	6.71E-04	1.12E+04	4.18E+07	1.43E-05	2.04E-08	3.99E-03	1.29E-03
Panaeidea	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.96E-02	8.77E-04	9.87E+03	9.75E+07	1.90E-05	3.19E-08	6.34E-03	3.54E-03
	All Depths	2.96E-02	8.77E-04	9.87E+03	9.75E+07	7.25E-06	1.21E-08	2.42E-03	1.35E-03
Sergestes sp.	200-600	5.72E-03	3.27E-05	2.86E+03	8.17E+06	3.64E-06	1.90E-09	1.82E-03	4.74E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.72E-03	3.27E-05	2.86E+03	8.17E+06	2.25E-06	1.17E-09	1.13E-03	2.93E-04
Pandalus borealis	200-600	5.97E+02	5.40E+03	8.89E+07	1.22E+14	3.09E-01	2.90E-01	4.64E+01	6.60E+03
	600-1200	7.22E-01	3.31E-01	2.81E+05	7.76E+10	5.27E-04	1.40E-05	1.90E-01	3.07E+00
	All Depths	5.98E+02	5.40E+03	8.92E+07	1.23E+14	1.91E-01	2.01E-01	2.88E+01	4.58E+03
Pandalus tridens	200-600	1.86E+01	3.17E+02	3.71E+06	1.24E+13	1.01E-02	1.33E-02	2.00E+00	5.18E+02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.86E+01	3.17E+02	3.71E+06	1.24E+13	6.23E-03	8.24E-03	1.24E+00	3.21E+02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Pandalopsis aleutica	200-600	5.44E-01	2.46E-01	3.42E+04	9.94E+08	2.32E-04	5.82E-06	1.45E-02	2.34E-02
	600-1200	6.33E+01	1.27E+02	4.24E+06	4.23E+11	4.68E-02	8.41E-03	3.15E+00	3.50E+01
	All Depths	6.39E+01	1.27E+02	4.27E+06	4.24E+11	1.80E-02	3.70E-03	1.21E+00	1.56E+01
Pandalopsis dispar	200-600	2.16E+02	1.97E+03	1.58E+07	1.31E+13	1.03E-01	7.83E-02	7.54E+00	5.33E+02
	600-1200	4.80E-02	2.31E-03	4.80E+03	2.31E+07	2.97E-05	7.79E-08	2.97E-03	7.79E-04
	All Depths	2.16E+02	1.97E+03	1.58E+07	1.31E+13	6.40E-02	5.09E-02	4.67E+00	3.42E+02
Pandalopsis ampla	200-600	1.41E-01	1.98E-02	1.30E+04	1.68E+08	8.96E-05	1.15E-06	8.25E-03	9.73E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.41E-01	1.98E-02	1.30E+04	1.68E+08	5.54E-05	7.10E-07	5.11E-03	6.03E-03
Caridea unident.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	4.57E-02	1.18E-03	8.63E+03	2.28E+07	4.22E-05	9.17E-08	7.94E-03	1.81E-03
	All Depths	4.57E-02	1.18E-03	8.63E+03	2.28E+07	1.61E-05	3.51E-08	3.03E-03	6.99E-04
Eualus sp.	200-600	7.34E-02	2.81E-03	3.30E+04	5.53E+08	3.57E-05	9.36E-08	1.61E-02	1.85E-02
	600-1200	8.49E-01	1.31E-01	4.33E+05	3.12E+10	4.43E-04	2.86E-06	2.27E-01	7.03E-01
	All Depths	9.23E-01	1.33E-01	4.66E+05	3.18E+10	1.91E-04	1.18E-06	9.65E-02	2.88E-01
Eualus barbatus	200-600	2.98E-02	4.76E-04	8.62E+03	3.98E+07	1.65E-05	2.05E-08	4.85E-03	1.82E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.98E-02	4.76E-04	8.62E+03	3.98E+07	1.02E-05	1.27E-08	3.00E-03	1.13E-03
Eualus macilentus	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	5.28E-01	2.79E-01	2.21E+05	4.89E+10	3.26E-04	9.33E-06	1.36E-01	1.64E+00
	All Depths	5.28E-01	2.79E-01	2.21E+05	4.89E+10	1.24E-04	3.56E-06	5.19E-02	6.23E-01
Eualus suckleyi	200-600	3.86E+00	5.85E+00	6.57E+05	1.37E+11	2.45E-03	3.49E-04	4.16E-01	8.26E+00
	600-1200	1.20E+01	6.96E+00	5.07E+06	1.19E+12	1.03E-02	7.73E-04	4.34E+00	1.31E+02
	All Depths	1.59E+01	1.28E+01	5.73E+06	1.33E+12	5.44E-03	5.23E-04	1.91E+00	5.83E+01
Lebbeus groenlandicus	200-600	3.28E-01	1.08E-01	3.84E+04	1.47E+09	1.63E-04	3.78E-06	1.90E-02	5.18E-02
	600-1200	2.03E+00	3.24E+00	1.76E+05	2.42E+10	1.88E-03	2.62E-04	1.64E-01	1.96E+00
	All Depths	2.36E+00	3.35E+00	2.14E+05	2.57E+10	8.18E-04	1.02E-04	7.41E-02	7.77E-01
Crangon sp.	200-600	5.08E-03	2.58E-05	5.08E+03	2.58E+07	3.07E-06	1.34E-09	3.07E-03	1.34E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.08E-03	2.58E-05	5.08E+03	2.58E+07	1.90E-06	8.32E-10	1.90E-03	8.32E-04
Crangon communis	200-600	6.36E-01	4.13E-02	1.64E+05	2.47E+09	3.80E-04	2.12E-06	9.99E-02	1.37E-01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.36E-01	4.13E-02	1.64E+05	2.47E+09	2.35E-04	1.35E-06	6.19E-02	8.72E-02
Crangon dalli	200-600	4.44E-02	1.14E-03	1.59E+04	1.27E+08	2.55E-05	5.46E-08	9.12E-03	6.14E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.44E-02	1.14E-03	1.59E+04	1.27E+08	1.58E-05	3.39E-08	5.65E-03	3.81E-03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Argis sp.	200-600	1.06E-02	1.12E-04	5.28E+03	2.79E+07	5.72E-06	4.68E-09	2.86E-03	1.17E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.06E-02	1.12E-04	5.28E+03	2.79E+07	3.54E-06	2.90E-09	1.77E-03	7.25E-04
Argis lar	200-600	4.35E-01	1.50E-02	1.19E+05	1.16E+09	2.31E-04	6.10E-07	6.25E-02	4.69E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.35E-01	1.50E-02	1.19E+05	1.16E+09	1.43E-04	3.89E-07	3.87E-02	2.99E-02
Pasiphaea pacifica	200-600	2.06E+01	3.03E+01	7.34E+06	3.95E+12	1.31E-02	2.21E-03	4.67E+00	2.87E+02
	600-1200	1.19E+00	8.19E-01	3.71E+05	6.82E+10	1.07E-03	6.06E-05	3.33E-01	5.04E+00
	All Depths	2.18E+01	3.12E+01	7.72E+06	4.02E+12	8.52E-03	1.42E-03	3.02E+00	1.83E+02
Pasiphaea tarda	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	6.16E-01	6.16E-02	6.20E+04	9.32E+08	3.78E-04	1.89E-06	3.69E-02	2.36E-02
	All Depths	6.16E-01	6.16E-02	6.20E+04	9.32E+08	1.44E-04	7.50E-07	1.40E-02	9.23E-03
Notostomus japonicus	200-600	8.89E-02	7.90E-03	2.96E+03	8.78E+06	5.66E-05	4.58E-07	1.89E-03	5.09E-04
	600-1200	1.72E-01	1.02E-02	1.23E+04	6.53E+07	1.45E-04	7.52E-07	7.87E-03	1.79E-03
	All Depths	2.61E-01	1.81E-02	1.53E+04	7.41E+07	9.03E-05	5.69E-07	4.17E-03	1.00E-03
Hymenodora frontalis	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.53E-02	6.38E-04	2.10E+04	4.43E+08	1.70E-05	2.53E-08	1.41E-02	1.76E-02
	All Depths	2.53E-02	6.38E-04	2.10E+04	4.43E+08	6.46E-06	9.63E-09	5.38E-03	6.69E-03
Brachyura species	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	4.20E-02	1.77E-03	7.01E+03	4.91E+07	3.70E-05	1.21E-07	6.17E-03	3.35E-03
	All Depths	4.20E-02	1.77E-03	7.01E+03	4.91E+07	1.41E-05	4.60E-08	2.35E-03	1.28E-03
Oregonia gracilis	200-600	2.54E-02	6.43E-04	4.23E+03	1.79E+07	1.02E-05	1.50E-08	1.71E-03	4.17E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.54E-02	6.43E-04	4.23E+03	1.79E+07	6.34E-06	9.29E-09	1.06E-03	2.58E-04
Chorilia longipes	200-600	1.50E-01	3.34E-03	1.91E+04	5.12E+07	8.47E-05	1.75E-07	1.05E-02	2.60E-03
	600-1200	1.64E-01	1.38E-02	1.48E+04	1.10E+08	7.77E-05	2.70E-07	7.24E-03	2.43E-03
	All Depths	3.14E-01	1.72E-02	3.39E+04	1.61E+08	8.21E-05	2.10E-07	9.28E-03	2.53E-03
Chionoecetes tanneri	200-600	7.91E+02	2.95E+04	1.91E+06	2.03E+11	4.12E-01	1.44E+00	1.01E+00	1.06E+01
	600-1200	2.29E+03	2.40E+05	6.29E+06	2.26E+12	1.75E+00	1.50E+01	4.86E+00	1.59E+02
	All Depths	3.08E+03	2.69E+05	8.21E+06	2.46E+12	9.23E-01	7.00E+00	2.47E+00	7.00E+01
Chionoecetes bairdi	200-600	7.87E+02	1.42E+05	9.11E+06	1.32E+13	4.38E-01	6.92E+00	5.08E+00	6.66E+02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	7.87E+02	1.42E+05	9.11E+06	1.32E+13	2.71E-01	4.32E+00	3.15E+00	4.17E+02
Chionoecetes angulatus	200-600	6.39E+02	8.75E+04	3.47E+06	2.38E+12	3.96E-01	5.35E+00	2.15E+00	1.46E+02
	600-1200	4.53E+03	2.92E+05	6.10E+07	8.38E+13	3.61E+00	2.76E+01	4.80E+01	6.63E+03
	All Depths	5.17E+03	3.80E+05	6.44E+07	8.62E+13	1.62E+00	1.62E+01	1.96E+01	3.10E+03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Hyas lyratus	200-600	1.19E+01	1.43E+01	6.83E+05	4.63E+10	6.84E-03	7.69E-04	3.92E-01	2.51E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.19E+01	1.43E+01	6.83E+05	4.63E+10	4.24E-03	4.86E-04	2.43E-01	1.59E+00
Chionoecetes opilio	200-600	4.38E+02	1.57E+05	1.10E+06	5.42E+11	2.22E-01	5.84E+00	5.38E-01	2.02E+01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.38E+02	1.57E+05	1.10E+06	5.42E+11	1.38E-01	3.62E+00	3.33E-01	1.25E+01
Pagurus sp.	200-600	1.07E-01	1.14E-02	9.71E+03	9.42E+07	4.31E-05	2.66E-07	3.92E-03	2.20E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.07E-01	1.14E-02	9.71E+03	9.42E+07	2.67E-05	1.65E-07	2.43E-03	1.36E-03
Pagurus brandti	200-600	1.14E-01	4.28E-03	2.06E+04	1.48E+08	6.69E-05	2.11E-07	1.20E-02	7.21E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.14E-01	4.28E-03	2.06E+04	1.48E+08	4.14E-05	1.31E-07	7.42E-03	4.49E-03
Pagurus aleuticus	200-600	2.05E+01	4.43E+01	6.94E+05	4.16E+10	1.22E-02	2.42E-03	4.19E-01	2.44E+00
	600-1200	4.30E+01	6.79E+01	1.52E+06	6.32E+10	3.47E-02	4.01E-03	1.25E+00	4.67E+00
	All Depths	6.35E+01	1.12E+02	2.21E+06	1.05E+11	2.08E-02	3.13E-03	7.37E-01	3.44E+00
Labidochirus splendescens	200-600	8.94E-02	4.14E-03	7.02E+03	2.64E+07	4.23E-05	1.27E-07	3.28E-03	7.69E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	8.94E-02	4.14E-03	7.02E+03	2.64E+07	2.62E-05	7.88E-08	2.03E-03	4.78E-04
Pagurus confragosus	200-600	4.70E+00	3.02E+00	1.40E+05	1.14E+09	2.58E-03	1.49E-04	7.66E-02	6.05E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.70E+00	3.02E+00	1.40E+05	1.14E+09	1.59E-03	9.34E-05	4.74E-02	3.87E-02
Pagurus cornutus	200-600	1.24E+02	5.68E+02	3.25E+06	4.26E+11	7.12E-02	2.98E-02	1.80E+00	1.71E+01
	600-1200	2.10E-01	1.78E-02	1.60E+04	7.61E+07	1.71E-04	9.21E-07	1.32E-02	3.92E-03
	All Depths	1.24E+02	5.68E+02	3.26E+06	4.26E+11	4.42E-02	1.96E-02	1.12E+00	1.13E+01
Pagurus trigonocheirus	200-600	3.63E+01	2.35E+02	1.92E+06	6.66E+11	1.47E-02	7.00E-03	7.77E-01	1.98E+01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.63E+01	2.35E+02	1.92E+06	6.66E+11	9.07E-03	4.37E-03	4.81E-01	1.24E+01
Pagurus ochotensis	200-600	6.20E-01	2.93E-01	1.08E+04	4.21E+07	3.57E-04	1.40E-05	6.21E-03	2.08E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.20E-01	2.93E-01	1.08E+04	4.21E+07	2.21E-04	8.65E-06	3.84E-03	1.29E-03
Elassochirus cavimanus	200-600	6.76E+00	6.72E+00	1.42E+05	2.34E+09	3.46E-03	2.36E-04	7.51E-02	9.74E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.76E+00	6.72E+00	1.42E+05	2.34E+09	2.14E-03	1.48E-04	4.65E-02	6.15E-02
Lithodidae unident.	200-600	1.05E-01	5.67E-03	2.48E+04	3.10E+08	4.89E-05	1.82E-07	1.12E-02	8.93E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.05E-01	5.67E-03	2.48E+04	3.10E+08	3.03E-05	1.13E-07	6.94E-03	5.55E-03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Lithodes sp.	200-600	1.17E-02	1.38E-04	2.93E+03	8.61E+06	7.09E-06	7.19E-09	1.77E-03	4.49E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.17E-02	1.38E-04	2.93E+03	8.61E+06	4.39E-06	4.45E-09	1.10E-03	2.78E-04
Lithodes couesi	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	5.36E+02	2.04E+04	7.84E+05	4.19E+10	3.62E-01	9.24E-01	5.38E-01	1.78E+00
	All Depths	5.36E+02	2.04E+04	7.84E+05	4.19E+10	1.38E-01	3.81E-01	2.05E-01	7.43E-01
Lithodes aequispina	200-600	9.99E+02	9.94E+04	1.10E+06	8.00E+10	5.59E-01	6.02E+00	6.07E-01	4.91E+00
	600-1200	9.92E+01	1.69E+03	1.38E+05	2.67E+09	8.99E-02	1.76E-01	1.16E-01	2.10E-01
	All Depths	1.10E+03	1.01E+05	1.24E+06	8.26E+10	3.81E-01	3.83E+00	4.20E-01	3.17E+00
Paralomis verrilli	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.06E+02	4.30E+03	3.51E+05	4.83E+10	1.13E-01	5.58E-01	3.72E-01	6.19E+00
	All Depths	1.06E+02	4.30E+03	3.51E+05	4.83E+10	4.30E-02	2.14E-01	1.42E-01	2.37E+00
Paralomis multispina	200-600	4.51E+00	2.04E+01	6.62E+03	4.38E+07	2.14E-03	6.53E-04	3.13E-03	1.40E-03
	600-1200	5.18E+02	8.46E+03	8.98E+05	1.76E+10	2.27E-01	7.41E-01	4.00E-01	2.14E+00
	All Depths	5.23E+02	8.48E+03	9.05E+05	1.76E+10	8.77E-02	2.93E-01	1.54E-01	8.46E-01
Erimacrus isenbeckii	200-600	9.48E-02	8.98E-03	3.16E+03	9.98E+06	5.45E-05	4.25E-07	1.82E-03	4.72E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	9.48E-02	8.98E-03	3.16E+03	9.98E+06	3.37E-05	2.63E-07	1.12E-03	2.92E-04
Pycnogonida	200-600	6.55E-02	1.71E-03	2.21E+04	9.67E+07	3.58E-05	6.36E-08	1.33E-02	5.26E-03
	600-1200	3.33E-01	9.45E-02	1.67E+05	2.36E+10	3.05E-04	7.00E-06	1.52E-01	1.75E+00
	All Depths	3.99E-01	9.62E-02	1.89E+05	2.37E+10	1.38E-04	2.70E-06	6.63E-02	6.69E-01
Neomenia sp.	200-600	1.81E-01	1.84E-02	7.17E+03	2.15E+07	9.80E-05	8.54E-07	3.88E-03	1.07E-03
	600-1200	2.56E+01	5.36E+02	6.86E+05	3.87E+11	1.35E-02	1.25E-02	3.61E-01	9.04E+00
	All Depths	2.58E+01	5.36E+02	6.93E+05	3.87E+11	5.20E-03	4.78E-03	1.40E-01	3.45E+00
Polyplacophora unident.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	9.77E-03	9.55E-05	4.89E+03	2.39E+07	6.03E-06	3.20E-09	3.01E-03	7.99E-04
	All Depths	9.77E-03	9.55E-05	4.89E+03	2.39E+07	2.30E-06	1.22E-09	1.15E-03	3.04E-04
Placiphorella atlantica	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.81E-02	7.87E-04	4.68E+03	2.19E+07	2.10E-05	3.89E-08	3.50E-03	1.08E-03
	All Depths	2.81E-02	7.87E-04	4.68E+03	2.19E+07	8.01E-06	1.48E-08	1.33E-03	4.11E-04
gastropod eggs	200-600	6.16E-01	3.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.16E-01	3.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Buccinum sp. eggs	200-600	1.73E+01	2.78E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.64E+00	1.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.09E+01	2.89E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (t)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no./ha	CPUE variance
Fusitriton oregonensis eggs	200-600	1.02E-01	4.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.02E-01	4.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Neptunea sp. eggs	200-600	6.72E+00	7.08E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.76E+01	3.46E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.44E+01	3.54E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nudibranchia unident.	200-600	2.01E+01	1.15E+02	6.73E+05	7.14E+10	1.06E-02	4.20E-03	3.97E-01	3.99E+00
	600-1200	7.02E+00	2.45E+01	3.88E+05	9.01E+10	3.54E-03	4.98E-04	2.43E-01	3.48E+00
	All Depths	2.71E+01	1.39E+02	1.06E+06	1.62E+11	7.92E-03	2.79E-03	3.38E-01	3.78E+00
Tritonia sp.	200-600	1.92E+00	1.57E+00	1.91E+04	9.84E+07	1.19E-03	9.04E-05	1.11E-02	4.65E-03
	600-1200	4.31E-01	1.41E-01	1.05E+04	5.69E+07	3.93E-04	1.12E-05	8.62E-03	3.70E-03
	All Depths	2.35E+00	1.71E+00	2.96E+04	1.55E+08	8.84E-04	6.02E-05	1.02E-02	4.27E-03
Naticidae	200-600	3.16E-02	9.99E-04	3.16E+03	9.99E+06	1.82E-05	4.73E-08	1.82E-03	4.73E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.16E-02	9.99E-04	3.16E+03	9.99E+06	1.13E-05	2.93E-08	1.13E-03	2.93E-04
Natica clausa	200-600	1.17E-01	4.35E-03	1.61E+04	6.41E+07	5.48E-05	1.42E-07	7.89E-03	2.20E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.17E-01	4.35E-03	1.61E+04	6.41E+07	3.39E-05	8.87E-08	4.88E-03	1.37E-03
Cryptonatica (=Natica) aleutica	200-600	1.31E-02	1.73E-04	3.28E+03	1.08E+07	7.56E-06	8.16E-09	1.89E-03	5.10E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.31E-02	1.73E-04	3.28E+03	1.08E+07	4.68E-06	5.05E-09	1.17E-03	3.16E-04
Boreoscala greenlandica	200-600	9.33E-03	8.70E-05	4.66E+03	2.17E+07	3.77E-06	2.03E-09	1.88E-03	5.08E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	9.33E-03	8.70E-05	4.66E+03	2.17E+07	2.33E-06	1.26E-09	1.17E-03	3.14E-04
Colus jordani	200-600	4.44E-02	1.98E-03	3.17E+03	1.01E+07	2.56E-05	9.35E-08	1.83E-03	4.77E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.44E-02	1.98E-03	3.17E+03	1.01E+07	1.58E-05	5.79E-08	1.13E-03	2.95E-04
Colus herendeenii	200-600	4.59E-01	4.94E-02	2.12E+04	1.12E+08	1.86E-04	1.28E-06	8.58E-03	2.89E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.59E-01	4.94E-02	2.12E+04	1.12E+08	1.15E-04	8.01E-07	5.31E-03	1.80E-03
Colus spitzbergensis	200-600	2.33E-02	5.41E-04	2.91E+03	8.46E+06	1.48E-05	3.14E-08	1.85E-03	4.91E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.33E-02	5.41E-04	2.91E+03	8.46E+06	9.17E-06	1.94E-08	1.15E-03	3.04E-04
Colus aphelus	200-600	4.43E-02	1.96E-03	5.54E+03	3.07E+07	2.82E-05	1.14E-07	3.53E-03	1.78E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.43E-02	1.96E-03	5.54E+03	3.07E+07	1.75E-05	7.05E-08	2.18E-03	1.10E-03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (t)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no./ha	CPUE variance
Volutopsius sp. eggs	200-600	1.49E+00	4.21E-01	2.69E+04	1.56E+08	2.45E-04	2.54E-06	1.55E-02	8.04E-03
	600-1200	1.61E-01	2.60E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.65E+00	4.46E-01	2.69E+04	1.56E+08	1.49E-04	1.56E-06	9.43E-03	4.95E-03
Pyrulofusus sp. eggs	200-600	4.96E-01	1.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.96E-01	1.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pyrulofusus deformis	200-600	3.36E+01	1.23E+02	1.50E+05	2.42E+09	1.53E-02	4.24E-03	6.71E-02	8.13E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.36E+01	1.23E+02	1.50E+05	2.42E+09	9.46E-03	2.67E-03	4.15E-02	5.13E-02
Pyrulofusus harpa	200-600	2.28E+01	2.88E+02	1.19E+05	7.78E+09	1.33E-02	1.37E-02	6.97E-02	3.71E-01
	600-1200	1.09E+00	1.18E+00	9.95E+03	9.90E+07	9.94E-04	8.69E-05	9.09E-03	7.27E-03
	All Depths	2.39E+01	2.89E+02	1.29E+05	7.88E+09	8.63E-03	8.54E-03	4.66E-02	2.33E-01
Pyrulofusus melonis	200-600	3.15E+02	7.53E+03	2.67E+06	4.34E+11	1.99E-01	5.25E-01	1.69E+00	3.20E+01
	600-1200	9.02E+00	3.81E+01	7.98E+04	2.78E+09	8.24E-03	2.99E-03	7.29E-02	2.20E-01
	All Depths	3.24E+02	7.57E+03	2.75E+06	4.37E+11	1.26E-01	3.34E-01	1.08E+00	2.05E+01
Volutopsius middendorffii	200-600	2.13E-01	4.55E-02	4.45E+03	1.98E+07	8.62E-05	1.06E-06	1.80E-03	4.62E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.13E-01	4.55E-02	4.45E+03	1.98E+07	5.34E-05	6.58E-07	1.11E-03	2.86E-04
Beringius frielei	200-600	8.49E+01	2.60E+02	8.43E+05	2.89E+10	5.12E-02	1.61E-02	5.03E-01	1.66E+00
	600-1200	2.25E+00	6.59E-01	4.67E+04	2.18E+08	1.89E-03	4.49E-05	3.88E-02	1.40E-02
	All Depths	8.71E+01	2.60E+02	8.90E+05	2.92E+10	3.24E-02	1.05E-02	3.26E-01	1.08E+00
Beringius sp. *eggs*	200-600	4.27E-01	2.91E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.49E-02	6.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.51E-01	2.97E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Neptunea sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.37E-01	1.13E-01	8.42E+03	7.09E+07	1.13E-04	1.13E-06	2.83E-03	7.06E-04
	All Depths	3.37E-01	1.13E-01	8.42E+03	7.09E+07	4.32E-05	4.31E-07	1.08E-03	2.69E-04
Neptunea pribiloffensis	200-600	1.00E+03	3.49E+04	9.25E+06	2.34E+12	6.04E-01	2.41E+00	5.50E+00	1.60E+02
	600-1200	5.78E+02	2.69E+04	1.27E+07	1.57E+13	4.55E-01	1.34E+00	9.80E+00	7.27E+02
	All Depths	1.58E+03	6.18E+04	2.19E+07	1.80E+13	5.47E-01	2.00E+00	7.13E+00	3.78E+02
Neptunea lyrata	200-600	1.32E+00	1.73E+00	3.11E+04	9.69E+08	5.32E-04	4.04E-05	1.26E-02	2.26E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.32E+00	1.73E+00	3.11E+04	9.69E+08	3.29E-04	2.50E-05	7.79E-03	1.40E-02
Neptunea insularis	200-600	1.48E+00	2.20E+00	6.29E+03	3.96E+07	8.04E-04	9.24E-05	3.41E-03	1.66E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.48E+00	2.20E+00	6.29E+03	3.96E+07	4.98E-04	5.72E-05	2.11E-03	1.03E-03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (t)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no./ha	CPUE variance
Plicifusus kroyeri	200-600	2.54E+00	2.20E+00	6.57E+04	1.98E+09	1.03E-03	5.73E-05	2.71E-02	4.91E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.54E+00	2.20E+00	6.57E+04	1.98E+09	6.36E-04	3.56E-05	1.68E-02	3.05E-02
Sulcosinus taphrius	200-600	2.09E-02	4.38E-04	3.49E+03	1.22E+07	1.04E-05	1.54E-08	1.73E-03	4.28E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.09E-02	4.38E-04	3.49E+03	1.22E+07	6.43E-06	9.54E-09	1.07E-03	2.65E-04
Aforia circinata	200-600	1.12E-01	2.53E-03	1.82E+04	6.60E+07	6.58E-05	1.30E-07	1.08E-02	3.50E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.12E-01	2.53E-03	1.82E+04	6.60E+07	4.08E-05	8.11E-08	6.68E-03	2.19E-03
Boreotrophon alaskanus	200-600	7.46E-02	5.57E-03	9.33E+03	8.70E+07	3.02E-05	1.30E-07	3.77E-03	2.03E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	7.46E-02	5.57E-03	9.33E+03	8.70E+07	1.87E-05	8.05E-08	2.33E-03	1.26E-03
Fusitriton oregonensis	200-600	1.87E+02	1.00E+03	2.56E+06	1.71E+11	1.01E-01	4.78E-02	1.38E+00	8.39E+00
	600-1200	1.52E+00	1.62E+00	2.36E+04	4.02E+08	1.12E-03	7.90E-05	1.73E-02	1.96E-02
	All Depths	1.89E+02	1.01E+03	2.59E+06	1.71E+11	6.28E-02	3.19E-02	8.59E-01	5.63E+00
Buccinum sp.	200-600	5.61E-03	3.15E-05	2.81E+03	7.87E+06	3.57E-06	1.83E-09	1.79E-03	4.57E-04
	600-1200	5.05E-01	2.55E-01	8.15E+03	6.64E+07	4.67E-04	1.92E-05	7.53E-03	4.99E-03
	All Depths	5.11E-01	2.55E-01	1.10E+04	7.43E+07	1.80E-04	7.31E-06	3.98E-03	2.18E-03
Buccinum oedematum	200-600	1.03E+02	4.44E+02	3.13E+06	2.79E+11	5.87E-02	2.40E-02	1.87E+00	2.04E+01
	600-1200	1.42E+02	7.30E+02	4.13E+06	4.88E+11	1.02E-01	1.98E-02	3.04E+00	1.49E+01
	All Depths	2.45E+02	1.17E+03	7.26E+06	7.67E+11	7.52E-02	2.27E-02	2.31E+00	1.86E+01
Buccinum scalariforme	200-600	1.81E-01	1.59E-02	6.46E+03	2.02E+07	1.04E-04	7.69E-07	3.71E-03	9.80E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.81E-01	1.59E-02	6.46E+03	2.02E+07	6.43E-05	4.77E-07	2.30E-03	6.08E-04
Buccinum sp. A (Clark)	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.50E+01	3.17E+01	3.22E+05	1.30E+10	1.04E-02	1.01E-03	2.23E-01	4.26E-01
	All Depths	1.50E+01	3.17E+01	3.22E+05	1.30E+10	3.96E-03	4.07E-04	8.51E-02	1.73E-01
Ancistrolepis eucosmius	200-600	1.32E-01	4.05E-03	2.91E+04	2.06E+08	8.39E-05	2.47E-07	1.83E-02	1.23E-02
	600-1200	1.14E-01	1.02E-02	1.34E+04	1.08E+08	1.04E-04	7.62E-07	1.22E-02	8.25E-03
	All Depths	2.47E-01	1.42E-02	4.25E+04	3.14E+08	9.17E-05	4.41E-07	1.60E-02	1.07E-02
Arctomelon stearnsii	200-600	1.40E+01	1.24E+01	2.38E+05	3.48E+09	8.54E-03	7.86E-04	1.47E-01	2.31E-01
	600-1200	8.72E+00	9.07E+00	1.59E+05	3.32E+09	7.82E-03	9.11E-04	1.43E-01	3.27E-01
	All Depths	2.27E+01	2.15E+01	3.97E+05	6.80E+09	8.26E-03	8.30E-04	1.45E-01	2.67E-01
Bivalvia unident.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.55E+00	1.53E+00	1.01E+05	7.06E+09	9.63E-04	5.74E-05	6.24E-02	2.58E-01
	All Depths	1.55E+00	1.53E+00	1.01E+05	7.06E+09	3.67E-04	2.19E-05	2.38E-02	9.86E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Modiolus modiolus	200-600	6.04E-01	2.66E-01	1.58E+04	1.32E+08	3.53E-04	1.26E-05	9.48E-03	6.60E-03
	600-1200	2.02E-01	4.09E-02	6.74E+03	4.55E+07	1.85E-04	3.01E-06	6.16E-03	3.34E-03
	All Depths	8.06E-01	3.07E-01	2.26E+04	1.77E+08	2.89E-04	8.95E-06	8.22E-03	5.34E-03
Mytilus edulis	200-600	6.66E-02	4.44E-03	5.55E+03	3.08E+07	4.24E-05	2.57E-07	3.54E-03	1.79E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.66E-02	4.44E-03	5.55E+03	3.08E+07	2.63E-05	1.59E-07	2.19E-03	1.11E-03
Yoldia sp.	200-600	5.52E-02	2.10E-03	2.48E+04	4.07E+08	3.52E-05	1.23E-07	1.58E-02	2.38E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.52E-02	2.10E-03	2.48E+04	4.07E+08	2.18E-05	7.61E-08	9.78E-03	1.48E-02
Cardita sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	5.09E-03	2.59E-05	2.54E+03	6.47E+06	4.70E-06	1.95E-09	2.35E-03	4.86E-04
	All Depths	5.09E-03	2.59E-05	2.54E+03	6.47E+06	1.79E-06	7.41E-10	8.96E-04	1.85E-04
Cyclocardia sp.	200-600	3.70E-02	1.37E-03	1.39E+04	1.92E+08	1.49E-05	3.19E-08	5.60E-03	4.48E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.70E-02	1.37E-03	1.39E+04	1.92E+08	9.24E-06	1.97E-08	3.47E-03	2.78E-03
Serripes groenlandicus	200-600	1.79E+00	1.30E+00	2.06E+04	1.90E+08	7.94E-04	3.52E-05	8.90E-03	4.83E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.79E+00	1.30E+00	2.06E+04	1.90E+08	4.92E-04	2.19E-05	5.51E-03	3.00E-03
Pododesmus cepio	200-600	5.82E-02	3.38E-03	1.75E+04	3.05E+08	3.70E-05	1.96E-07	1.11E-02	1.77E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.82E-02	3.38E-03	1.75E+04	3.05E+08	2.29E-05	1.22E-07	6.88E-03	1.09E-02
Cephalopoda unident. egg	200-600	1.22E-02	1.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.22E-02	1.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Teuthida unident. egg	200-600	1.03E-01	1.06E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.03E-01	1.06E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benthoctopus leioderma	200-600	1.31E+02	5.80E+02	3.13E+05	2.67E+09	7.91E-02	4.16E-02	1.86E-01	1.81E-01
	600-1200	1.61E+02	1.17E+03	4.29E+05	6.85E+09	1.21E-01	7.20E-02	3.15E-01	3.64E-01
	All Depths	2.91E+02	1.75E+03	7.42E+05	9.52E+09	9.51E-02	5.33E-02	2.35E-01	2.53E-01
Octopus sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.03E+00	4.13E+00	3.93E+04	1.54E+09	2.15E-03	4.09E-04	4.17E-02	1.53E-01
	All Depths	2.03E+00	4.13E+00	3.93E+04	1.54E+09	8.21E-04	1.56E-04	1.59E-02	5.82E-02
Japatella diaphana	200-600	9.01E-01	8.11E-01	4.84E+03	2.35E+07	4.47E-04	2.85E-05	2.40E-03	8.25E-04
	600-1200	2.80E+00	1.81E+00	2.07E+04	9.78E+07	2.22E-03	1.34E-04	1.49E-02	5.11E-03
	All Depths	3.70E+00	2.62E+00	2.55E+04	1.21E+08	1.12E-03	6.92E-05	7.15E-03	2.48E-03

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(t)	variance	number	variance	kg/ha	variance	no./ha	variance
Opisthoteuthis californiana	200-600	2.14E+02	9.01E+03	1.83E+05	5.39E+09	8.79E-02	2.31E-01	7.59E-02	1.41E-01
	600-1200	3.95E+01	2.85E+02	5.83E+04	3.74E+08	2.74E-02	1.68E-02	4.27E-02	2.48E-02
	All Depths	2.54E+02	9.30E+03	2.42E+05	5.77E+09	6.48E-02	1.50E-01	6.33E-02	9.70E-02
Graneledone boreopacifica	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.45E+02	9.05E+03	2.71E+05	8.25E+09	1.16E-01	2.53E-01	1.25E-01	3.03E-01
	All Depths	2.45E+02	9.05E+03	2.71E+05	8.25E+09	4.41E-02	9.89E-02	4.75E-02	1.18E-01
Octopus dofleini	200-600	9.78E+02	5.48E+04	5.19E+05	5.90E+09	5.14E-01	2.43E+00	2.65E-01	2.42E-01
	600-1200	1.43E+01	4.03E+01	2.01E+04	8.03E+07	1.23E-02	2.71E-03	1.84E-02	6.41E-03
	All Depths	9.93E+02	5.49E+04	5.39E+05	5.98E+09	3.23E-01	1.56E+00	1.71E-01	1.66E-01
Octopus sp. 1 (Jorgensen)	200-600	4.90E+01	4.20E+01	5.78E+05	4.43E+09	2.91E-02	3.14E-03	3.34E-01	2.90E-01
	600-1200	2.32E+01	6.14E+01	2.22E+05	1.54E+09	1.47E-02	8.93E-04	1.64E-01	6.36E-02
	All Depths	7.22E+01	1.03E+02	8.00E+05	5.97E+09	2.36E-02	2.33E-03	2.69E-01	2.10E-01
Benthoctopus sp.	200-600	4.06E+00	6.14E+00	3.17E+04	1.62E+08	2.25E-03	2.37E-04	1.87E-02	7.85E-03
	600-1200	1.15E+02	2.04E+03	1.50E+05	3.00E+09	8.17E-02	8.22E-02	1.07E-01	1.21E-01
	All Depths	1.19E+02	2.05E+03	1.82E+05	3.16E+09	3.25E-02	3.27E-02	5.24E-02	5.24E-02
Vampyroteuthis infernalis	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.86E-01	3.45E-02	3.09E+03	9.58E+06	1.72E-04	2.59E-06	2.86E-03	7.19E-04
	All Depths	1.86E-01	3.45E-02	3.09E+03	9.58E+06	6.54E-05	9.87E-07	1.09E-03	2.74E-04
Teuthoidea	200-600	1.22E-02	1.49E-04	2.04E+03	4.15E+06	7.78E-06	8.66E-09	1.30E-03	2.41E-04
	600-1200	1.29E+00	8.86E-01	1.34E+04	9.22E+07	1.18E-03	7.33E-05	1.12E-02	5.46E-03
	All Depths	1.30E+00	8.87E-01	1.54E+04	9.63E+07	4.55E-04	2.81E-05	5.06E-03	2.24E-03
Rossia pacifica	200-600	5.78E+01	1.17E+02	6.33E+05	1.13E+10	2.78E-02	4.74E-03	3.15E-01	5.38E-01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.78E+01	1.17E+02	6.33E+05	1.13E+10	1.72E-02	3.11E-03	1.95E-01	3.56E-01
Rossia pacifica eggs	200-600	2.33E-01	2.80E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.33E-01	2.80E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gonatidae unident.	200-600	1.64E+00	9.88E-01	3.40E+04	5.05E+08	9.94E-04	5.03E-05	2.04E-02	2.46E-02
	600-1200	1.09E+01	1.65E+01	1.12E+05	1.13E+09	8.08E-03	8.17E-04	9.10E-02	7.74E-02
	All Depths	1.25E+01	1.74E+01	1.46E+05	1.63E+09	3.70E-03	3.52E-04	4.73E-02	4.56E-02
Gonatus sp.	200-600	1.01E+00	6.37E-01	6.22E+04	1.98E+09	5.97E-04	3.02E-05	3.69E-02	9.47E-02
	600-1200	1.19E+00	3.58E-01	1.80E+04	5.77E+07	1.09E-03	2.82E-05	1.65E-02	4.75E-03
	All Depths	2.20E+00	9.94E-01	8.02E+04	2.04E+09	7.84E-04	2.94E-05	2.91E-02	6.03E-02
Gonatus onyx	200-600	4.62E-01	1.11E-01	5.58E+03	1.63E+07	2.67E-04	5.60E-06	3.06E-03	6.72E-04
	600-1200	8.01E-01	6.42E-01	4.36E+03	1.90E+07	4.95E-04	2.16E-05	2.69E-03	6.37E-04
	All Depths	1.26E+00	7.53E-01	9.93E+03	3.53E+07	3.54E-04	1.16E-05	2.92E-03	6.56E-04

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (mt)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no/ha	CPUE variance
	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gonatus pyros	600-1200	2.01E-01	4.04E-02	2.79E+03	7.80E+06	1.93E-04	3.28E-06	2.68E-03	6.34E-04
	All Depths	2.01E-01	4.04E-02	2.79E+03	7.80E+06	7.36E-05	1.25E-06	1.02E-03	2.41E-04
	200-600	4.99E-02	2.49E-03	2.77E+03	7.69E+06	3.18E-05	1.45E-07	1.77E-03	4.46E-04
Gonatus madokai	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	4.99E-02	2.49E-03	2.77E+03	7.69E+06	1.97E-05	8.95E-08	1.09E-03	2.76E-04
	200-600	1.26E+03	3.95E+04	3.57E+06	2.76E+11	7.26E-01	2.01E+00	2.06E+00	1.43E+01
Berryteuthis magister	600-1200	1.61E+02	8.02E+02	5.56E+05	9.52E+09	1.33E-01	6.97E-02	4.47E-01	7.26E-01
	All Depths	1.42E+03	4.03E+04	4.13E+06	2.86E+11	5.00E-01	1.35E+00	1.45E+00	9.73E+00
	200-600	3.68E+01	3.15E+02	9.19E+05	4.51E+11	2.21E-02	1.59E-02	5.37E-01	2.14E+01
Gonatopsis borealis	600-1200	1.50E+01	4.69E+01	9.71E+04	6.60E+08	1.11E-02	1.90E-03	7.80E-02	3.69E-02
	All Depths	5.18E+01	3.62E+02	1.02E+06	4.52E+11	1.79E-02	1.05E-02	3.62E-01	1.33E+01
	200-600	8.89E+01	7.90E+03	3.94E+03	1.56E+07	4.38E-02	2.74E-01	1.94E-03	5.40E-04
Moroteuthis robusta	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	8.89E+01	7.90E+03	3.94E+03	1.56E+07	2.71E-02	1.70E-01	1.20E-03	3.34E-04
	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Galiteuthis phyllura	600-1200	9.03E-01	4.08E-01	7.26E+03	2.65E+07	8.24E-04	3.10E-05	6.51E-03	1.87E-03
	All Depths	9.03E-01	4.08E-01	7.26E+03	2.65E+07	3.14E-04	1.19E-05	2.48E-03	7.17E-04
	200-600	2.22E-02	4.92E-04	2.77E+03	7.69E+06	1.41E-05	2.86E-08	1.77E-03	4.46E-04
Chiroteuthis calyx	600-1200	3.28E-01	1.08E-01	3.09E+03	9.58E+06	3.03E-04	8.08E-06	2.86E-03	7.19E-04
	All Depths	3.50E-01	1.08E-01	5.87E+03	1.73E+07	1.24E-04	3.10E-06	2.18E-03	5.48E-04
	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cranchiidae	600-1200	4.33E-01	1.88E-01	3.09E+03	9.58E+06	4.00E-04	1.41E-05	2.86E-03	7.19E-04
	All Depths	4.33E-01	1.88E-01	3.09E+03	9.58E+06	1.52E-04	5.37E-06	1.09E-03	2.74E-04
	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Taonius pavo	600-1200	5.73E+00	1.25E+01	2.22E+04	1.71E+08	3.19E-03	2.73E-04	1.30E-02	4.03E-03
	All Depths	5.73E+00	1.25E+01	2.22E+04	1.71E+08	1.22E-03	1.06E-04	4.94E-03	1.57E-03
	200-600	8.03E-02	4.29E-03	9.16E+03	4.80E+07	4.72E-05	2.05E-07	5.44E-03	2.34E-03
Tarsaster alaskanus	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	8.03E-02	4.29E-03	9.16E+03	4.80E+07	2.92E-05	1.27E-07	3.37E-03	1.45E-03
	200-600	2.77E-02	7.70E-04	6.94E+03	4.81E+07	1.68E-05	4.02E-08	4.19E-03	2.51E-03
Stephanasterias albula	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.77E-02	7.70E-04	6.94E+03	4.81E+07	1.04E-05	2.49E-08	2.59E-03	1.55E-03
	200-600	1.71E+01	2.31E+01	6.74E+05	8.21E+09	9.06E-03	8.10E-04	3.77E-01	4.47E-01
Henricia sp.	600-1200	1.98E+00	4.28E-01	1.25E+05	1.91E+09	1.50E-03	2.01E-05	8.78E-02	6.01E-02
	All Depths	1.91E+01	2.35E+01	7.99E+05	1.01E+10	6.18E-03	5.21E-04	2.67E-01	3.19E-01

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(mt)	variance	number	variance	kg/ha	variance	no/ha	variance
Henricia asthenactis	200-600	5.72E-01	3.27E-01	3.49E+03	1.22E+07	2.84E-04	1.15E-05	1.73E-03	4.28E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.72E-01	3.27E-01	3.49E+03	1.22E+07	1.76E-04	7.13E-06	1.07E-03	2.65E-04
Gephyreaster swifti	200-600	1.12E+01	1.25E+02	7.13E+03	5.08E+07	5.68E-03	4.62E-03	3.63E-03	1.88E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.12E+01	1.25E+02	7.13E+03	5.08E+07	3.52E-03	2.86E-03	2.25E-03	1.16E-03
Pseudarchaster alascensis	200-600	4.59E+00	2.89E+00	9.89E+04	9.63E+08	2.76E-03	1.47E-04	6.12E-02	5.73E-02
	600-1200	5.30E+00	6.37E+00	1.68E+05	4.93E+09	3.80E-03	2.41E-04	1.18E-01	1.84E-01
	All Depths	9.89E+00	9.25E+00	2.66E+05	5.89E+09	3.15E-03	1.82E-04	8.29E-02	1.06E-01
Hippasteria sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.80E+00	1.78E+00	1.68E+04	1.45E+08	1.42E-03	1.07E-04	1.22E-02	6.47E-03
	All Depths	1.80E+00	1.78E+00	1.68E+04	1.45E+08	5.42E-04	4.09E-05	4.65E-03	2.48E-03
Hippasteria spinosa	200-600	1.42E+02	2.56E+03	3.26E+05	2.04E+10	6.63E-02	8.29E-02	1.52E-01	5.44E-01
	600-1200	4.16E+01	3.94E+02	2.01E+05	1.14E+10	2.91E-02	1.80E-02	1.41E-01	4.59E-01
	All Depths	1.84E+02	2.95E+03	5.28E+05	3.18E+10	5.21E-02	5.83E-02	1.48E-01	5.09E-01
Pseudarchaster parelii	200-600	4.69E+00	3.03E+00	7.34E+04	4.07E+08	2.33E-03	9.07E-05	3.83E-02	1.47E-02
	600-1200	3.64E+00	7.27E-01	1.49E+05	1.44E+09	2.90E-03	4.37E-05	1.17E-01	7.42E-02
	All Depths	8.33E+00	3.76E+00	2.23E+05	1.85E+09	2.55E-03	7.26E-05	6.83E-02	3.86E-02
Mediaster sp.	200-600	1.79E+00	1.47E+00	8.45E+04	3.50E+09	1.03E-03	7.78E-05	4.91E-02	1.86E-01
	600-1200	1.17E+01	6.03E+01	5.64E+05	1.29E+11	7.62E-03	2.32E-03	3.66E-01	4.89E+00
	All Depths	1.35E+01	6.17E+01	6.49E+05	1.32E+11	3.54E-03	9.34E-04	1.70E-01	1.99E+00
Ceramaster japonicus	200-600	2.15E+03	4.92E+04	2.21E+07	3.68E+12	1.27E+00	3.76E+00	1.34E+01	4.41E+02
	600-1200	2.38E+02	3.33E+03	3.89E+06	9.72E+11	2.12E-01	3.57E-01	3.47E+00	1.04E+02
	All Depths	2.39E+03	5.26E+04	2.60E+07	4.65E+12	8.64E-01	2.72E+00	9.61E+00	3.35E+02
Solaster endeca	200-600	5.60E+00	3.13E+01	6.29E+03	3.96E+07	3.03E-03	1.31E-03	3.41E-03	1.66E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.60E+00	3.13E+01	6.29E+03	3.96E+07	1.88E-03	8.14E-04	2.11E-03	1.03E-03
Solaster sp. B	200-600	2.25E+01	1.13E+02	8.38E+04	1.57E+09	1.36E-02	6.19E-03	5.10E-02	8.87E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	2.25E+01	1.13E+02	8.38E+04	1.57E+09	8.42E-03	3.87E-03	3.16E-02	5.54E-02
Solaster sp. A (Clark)	200-600	9.76E-01	3.83E-01	1.57E+04	6.08E+07	4.78E-04	1.20E-05	8.25E-03	2.51E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	9.76E-01	3.83E-01	1.57E+04	6.08E+07	2.96E-04	7.46E-06	5.10E-03	1.57E-03
Solaster paxillatus	200-600	7.93E+01	5.12E+02	3.74E+05	7.65E+09	4.69E-02	2.77E-02	2.24E-01	4.38E-01
	600-1200	9.77E+00	2.53E+01	6.26E+04	8.97E+08	9.06E-03	1.98E-03	5.63E-02	7.01E-02
	All Depths	8.91E+01	5.37E+02	4.37E+05	8.54E+09	3.25E-02	1.82E-02	1.60E-01	3.04E-01

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (mt)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no/ha	CPUE variance
Crossaster sp.	200-600	3.17E+01	4.26E+02	6.07E+04	1.40E+09	1.32E-02	1.06E-02	2.54E-02	3.54E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.17E+01	4.26E+02	6.07E+04	1.40E+09	8.15E-03	6.58E-03	1.58E-02	2.20E-02
Crossaster borealis	200-600	6.89E+02	1.81E+04	6.90E+06	9.69E+11	3.62E-01	6.65E-01	3.83E+00	4.55E+01
	600-1200	2.54E+02	1.97E+03	2.60E+06	2.59E+11	1.91E-01	1.26E-01	1.92E+00	1.28E+01
	All Depths	9.43E+02	2.00E+04	9.50E+06	1.23E+12	2.97E-01	4.65E-01	3.11E+00	3.38E+01
Crossaster papposus	200-600	4.88E-01	3.39E-02	4.61E+04	3.54E+08	2.46E-04	2.29E-06	2.36E-02	2.07E-02
	600-1200	1.71E+00	1.86E+00	1.92E+05	2.54E+10	1.66E-03	1.57E-04	1.87E-01	2.13E+00
	All Depths	2.20E+00	1.89E+00	2.38E+05	2.57E+10	7.86E-04	6.14E-05	8.57E-02	8.26E-01
Heterozonias alternatus	200-600	2.77E+00	2.13E+00	2.65E+04	1.82E+08	1.12E-03	5.29E-05	1.07E-02	4.56E-03
	600-1200	5.59E+01	1.48E+03	2.66E+05	3.31E+10	3.51E-02	5.74E-02	1.68E-01	1.27E+00
	All Depths	5.87E+01	1.49E+03	2.93E+05	3.33E+10	1.40E-02	2.20E-02	7.08E-02	4.91E-01
Lophaster furcilliger	200-600	4.68E+01	8.79E+02	1.26E+06	3.83E+11	2.29E-02	2.96E-02	6.42E-01	1.31E+01
	600-1200	2.80E+02	1.39E+04	1.03E+07	2.47E+13	1.86E-01	4.67E-01	6.26E+00	6.44E+02
	All Depths	3.27E+02	1.48E+04	1.15E+07	2.51E+13	8.51E-02	2.01E-01	2.78E+00	2.59E+02
Pteraster sp.	200-600	3.40E+01	2.36E+02	4.06E+05	1.73E+10	1.79E-02	1.00E-02	2.09E-01	7.10E-01
	600-1200	5.02E+01	1.76E+02	1.09E+06	1.78E+11	2.61E-02	7.46E-03	5.60E-01	4.45E+00
	All Depths	8.41E+01	4.11E+02	1.49E+06	1.96E+11	2.10E-02	9.02E-03	3.43E-01	2.15E+00
Pteraster tesselatus	200-600	1.42E+01	1.46E+02	5.70E+04	1.20E+09	6.09E-03	3.46E-03	2.75E-02	3.28E-02
	600-1200	6.15E-02	3.79E-03	2.20E+03	4.83E+06	5.62E-05	2.78E-07	2.01E-03	3.55E-04
	All Depths	1.43E+01	1.46E+02	5.92E+04	1.21E+09	3.79E-03	2.15E-03	1.78E-02	2.06E-02
Pteraster militaris	200-600	9.67E-01	3.11E-01	2.50E+04	2.04E+08	6.16E-04	1.88E-05	1.59E-02	1.23E-02
	600-1200	2.11E+00	3.58E+00	7.47E+04	4.74E+09	1.93E-03	2.67E-04	6.83E-02	3.52E-01
	All Depths	3.08E+00	3.89E+00	9.97E+04	4.95E+09	1.12E-03	1.13E-04	3.59E-02	1.41E-01
Diplopteraster multipes	200-600	1.46E+02	1.31E+03	6.17E+05	2.03E+10	7.78E-02	6.78E-02	3.32E-01	9.91E-01
	600-1200	1.22E+01	4.31E+01	9.43E+04	3.07E+09	8.43E-03	2.04E-03	6.21E-02	1.16E-01
	All Depths	1.59E+02	1.36E+03	7.11E+05	2.34E+10	5.14E-02	4.38E-02	2.29E-01	6.73E-01
Diplopteraster sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.71E-01	1.38E-01	3.37E+03	1.14E+07	3.27E-04	9.38E-06	2.97E-03	7.76E-04
	All Depths	3.71E-01	1.38E-01	3.37E+03	1.14E+07	1.24E-04	3.58E-06	1.13E-03	2.95E-04
Thrissacanthias penicillatus	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.31E-02	1.72E-04	2.19E+03	4.78E+06	1.39E-05	1.70E-08	2.32E-03	4.73E-04
	All Depths	1.31E-02	1.72E-04	2.19E+03	4.78E+06	5.30E-06	6.49E-09	8.83E-04	1.80E-04
Ctenodiscus crispatus	200-600	2.24E+00	2.08E+00	1.82E+05	1.34E+10	9.14E-04	5.21E-05	7.52E-02	3.36E-01
	600-1200	4.53E-02	2.06E-03	1.13E+04	1.28E+08	2.08E-05	3.79E-08	5.19E-03	2.37E-03
	All Depths	2.28E+00	2.08E+00	1.94E+05	1.35E+10	5.74E-04	3.24E-05	4.85E-02	2.09E-01

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (mt)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no/ha	CPUE variance
Dipsacaster borealis	200-600	8.38E+02	4.82E+04	4.06E+06	8.03E+11	5.00E-01	2.64E+00	2.43E+00	4.58E+01
	600-1200	1.64E+01	5.44E+01	4.21E+05	1.11E+11	1.30E-02	3.52E-03	3.74E-01	8.27E+00
	All Depths	8.54E+02	4.83E+04	4.48E+06	9.14E+11	3.15E-01	1.69E+00	1.65E+00	3.24E+01
Nearchaster variabilis	200-600	3.85E+01	3.84E+02	1.09E+06	2.96E+11	2.39E-02	2.29E-02	6.74E-01	1.77E+01
	600-1200	1.89E+02	1.24E+04	4.69E+06	6.95E+12	1.40E-01	5.56E-01	3.53E+00	3.35E+02
	All Depths	2.27E+02	1.28E+04	5.77E+06	7.25E+12	6.80E-02	2.28E-01	1.76E+00	1.39E+02
Nearchaster sp.	200-600	4.12E+01	1.60E+02	1.23E+06	1.33E+11	2.31E-02	8.09E-03	6.73E-01	6.34E+00
	600-1200	3.85E+02	1.53E+04	1.19E+07	1.04E+13	2.60E-01	4.44E-01	8.10E+00	3.91E+02
	All Depths	4.26E+02	1.55E+04	1.31E+07	1.05E+13	1.13E-01	1.86E-01	3.50E+00	1.65E+02
Brisingella exilis	200-600	3.02E+00	2.02E+00	5.53E+04	8.08E+08	1.89E-03	1.22E-04	3.46E-02	4.86E-02
	600-1200	3.79E-01	7.40E-02	1.15E+04	7.97E+07	3.47E-04	5.75E-06	1.05E-02	6.09E-03
	All Depths	3.40E+00	2.10E+00	6.68E+04	8.88E+08	1.30E-03	7.82E-05	2.54E-02	3.24E-02
Zoraster evermanni	200-600	4.58E+00	6.14E+00	7.20E+04	2.14E+09	2.43E-03	2.41E-04	3.73E-02	7.70E-02
	600-1200	8.86E+02	2.07E+05	9.01E+06	1.35E+13	4.29E-01	4.97E+00	4.34E+00	4.31E+02
	All Depths	8.91E+02	2.07E+05	9.08E+06	1.35E+13	1.64E-01	1.91E+00	1.67E+00	1.66E+02
Myxoderma sacculatum	200-600	2.10E+01	6.15E+01	2.94E+05	1.17E+10	1.02E-02	2.42E-03	1.43E-01	4.67E-01
	600-1200	1.92E+02	4.89E+03	1.75E+06	4.62E+11	1.48E-01	3.36E-01	1.24E+00	1.74E+01
	All Depths	2.13E+02	4.95E+03	2.05E+06	4.73E+11	6.26E-02	1.33E-01	5.61E-01	7.14E+00
Strongylocentrotus droebachiensis	200-600	6.60E+01	5.61E+02	1.14E+06	2.86E+11	3.76E-02	2.88E-02	6.46E-01	1.39E+01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.60E+01	5.61E+02	1.14E+06	2.86E+11	2.33E-02	1.81E-02	4.00E-01	8.67E+00
Strongylocentrotus sp.	200-600	3.20E+01	4.00E+02	1.36E+06	7.10E+11	1.84E-02	1.95E-02	7.82E-01	3.46E+01
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.20E+01	4.00E+02	1.36E+06	7.10E+11	1.14E-02	1.21E-02	4.84E-01	2.15E+01
Allocentrotus fragilis	200-600	7.70E+01	1.90E+03	6.03E+05	4.15E+10	4.34E-02	8.12E-02	3.48E-01	1.91E+00
	600-1200	5.35E-02	2.87E-03	8.92E+03	7.96E+07	5.15E-05	2.33E-07	8.58E-03	6.47E-03
	All Depths	7.70E+01	1.90E+03	6.12E+05	4.15E+10	2.69E-02	5.06E-02	2.19E-01	1.21E+00
Brisaster latifrons	200-600	1.23E+03	8.33E+05	2.64E+07	5.40E+14	1.41E-01	2.28E+00	1.02E+01	1.18E+04
	600-1200	4.41E+02	1.05E+05	2.64E+07	3.39E+14	2.73E-01	4.10E+00	1.64E+01	1.37E+04
	All Depths	1.67E+03	9.38E+05	5.28E+07	8.80E+14	1.92E-01	2.97E+00	1.26E+01	1.25E+04
Echinarachnius parma	200-600	1.48E-02	2.20E-04	3.71E+03	1.38E+07	7.55E-06	8.16E-09	1.89E-03	5.10E-04
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.48E-02	2.20E-04	3.71E+03	1.38E+07	4.68E-06	5.05E-09	1.17E-03	3.16E-04
Crinoidea	200-600	6.10E+02	3.71E+05	2.62E+07	6.86E+14	2.94E-01	1.22E+01	1.26E+01	2.26E+04
	600-1200	3.28E+00	2.04E+00	1.96E+06	1.95E+12	1.59E-03	6.25E-05	9.64E-01	4.65E+01
	All Depths	6.13E+02	3.71E+05	2.82E+07	6.88E+14	1.82E-01	7.56E+00	8.17E+00	1.40E+04

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (mt)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no/ha	CPUE variance
Florometra sp.	200-600	1.11E-01	4.07E-03	1.48E+04	9.44E+07	7.10E-05	2.46E-07	9.43E-03	5.62E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.11E-01	4.07E-03	1.48E+04	9.44E+07	4.40E-05	1.53E-07	5.84E-03	3.49E-03
Ophiuroid unident.	200-600	3.75E+02	1.04E+05	5.88E+08	2.65E+17	2.39E-01	6.10E+00	3.74E+02	1.55E+07
	600-1200	2.10E+01	1.82E+02	1.12E+07	5.37E+13	1.91E-02	1.45E-02	1.02E+01	4.24E+03
	All Depths	3.96E+02	1.05E+05	5.99E+08	2.65E+17	1.55E-01	3.78E+00	2.36E+02	9.59E+06
Gorgonocephalus eucnemis	200-600	5.46E+02	7.31E+04	1.08E+07	3.62E+13	2.72E-01	2.59E+00	4.80E+00	9.45E+02
	600-1200	8.46E-01	7.16E-01	6.22E+03	3.87E+07	8.13E-04	5.82E-05	5.98E-03	3.15E-03
	All Depths	5.46E+02	7.31E+04	1.08E+07	3.62E+13	1.69E-01	1.62E+00	2.97E+00	5.89E+02
Asteronyx loveni	200-600	3.17E+02	3.49E+04	1.18E+07	4.89E+13	1.39E-01	9.69E-01	5.02E+00	1.26E+03
	600-1200	1.23E+01	1.17E+02	5.78E+05	2.57E+11	5.18E-03	1.65E-03	2.41E-01	3.61E+00
	All Depths	3.29E+02	3.50E+04	1.23E+07	4.91E+13	8.82E-02	6.03E-01	3.20E+00	7.87E+02
Ophiura sarsi	200-600	1.76E+03	6.31E+05	2.83E+09	1.66E+18	1.12E+00	3.95E+01	1.80E+03	1.04E+08
	600-1200	1.04E+03	2.13E+05	1.31E+09	4.08E+17	8.25E-01	1.39E+01	1.13E+03	3.19E+07
	All Depths	2.79E+03	8.44E+05	4.15E+09	2.07E+18	1.01E+00	2.96E+01	1.55E+03	7.61E+07
Stegophiura ponderosa	200-600	1.80E-01	7.30E-03	1.07E+04	1.94E+07	8.91E-05	4.27E-07	5.33E-03	1.34E-03
	600-1200	4.94E-02	2.44E-03	3.09E+03	9.52E+06	4.74E-05	1.98E-07	2.96E-03	7.74E-04
	All Depths	2.29E-01	9.74E-03	1.38E+04	2.89E+07	7.32E-05	3.39E-07	4.43E-03	1.12E-03
Ophiopholis aculeata	200-600	1.63E+02	6.39E+03	6.63E+07	1.24E+15	1.03E-01	3.94E-01	4.22E+01	7.54E+04
	600-1200	1.55E+02	2.16E+04	1.40E+08	1.89E+16	1.48E-01	1.75E+00	1.34E+02	1.54E+06
	All Depths	3.18E+02	2.79E+04	2.06E+08	2.02E+16	1.21E-01	9.05E-01	7.71E+01	6.30E+05
Holothuroidea unident.	200-600	1.32E-01	1.10E-02	1.41E+04	9.81E+07	7.60E-05	5.26E-07	8.13E-03	4.75E-03
	600-1200	5.15E-01	2.65E-01	3.14E+03	9.86E+06	4.70E-04	1.95E-05	2.87E-03	7.24E-04
	All Depths	6.47E-01	2.76E-01	1.73E+04	1.08E+08	2.26E-04	7.72E-06	6.13E-03	3.22E-03
Parastichopus sp.	200-600	3.43E+00	6.05E+00	4.82E+04	1.19E+09	1.92E-03	2.79E-04	2.61E-02	4.86E-02
	600-1200	1.48E-01	2.19E-02	3.09E+03	9.52E+06	1.42E-04	1.78E-06	2.96E-03	7.74E-04
	All Depths	3.58E+00	6.07E+00	5.13E+04	1.20E+09	1.24E-03	1.74E-04	1.73E-02	3.04E-02
Parastichopus leucothele	200-600	7.32E+03	5.59E+06	5.45E+07	3.82E+14	4.59E+00	3.67E+02	3.44E+01	2.48E+04
	600-1200	2.78E+03	1.54E+06	2.74E+07	1.37E+14	2.53E+00	1.20E+02	2.50E+01	1.11E+04
	All Depths	1.01E+04	7.13E+06	8.19E+07	5.20E+14	3.81E+00	2.73E+02	3.08E+01	1.95E+04
Pseudostichopus sp.	200-600	9.53E+00	6.55E+01	1.75E+05	2.21E+10	6.07E-03	3.83E-03	1.11E-01	1.29E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	9.53E+00	6.55E+01	1.75E+05	2.21E+10	3.76E-03	2.37E-03	6.90E-02	8.02E-01
Molpadia intermedia	200-600	1.49E+00	1.25E+00	5.91E+04	2.01E+09	6.34E-04	3.07E-05	2.50E-02	4.95E-02
	600-1200	2.04E+00	2.06E+00	5.27E+04	1.24E+09	1.45E-03	1.05E-04	3.78E-02	6.29E-02
	All Depths	3.53E+00	3.31E+00	1.12E+05	3.25E+09	9.47E-04	5.89E-05	2.99E-02	5.44E-02

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS		POPULATION		CPUE			
		(mt)	variance	number	variance	kg/ha	variance	no/ha	variance
Bathyplotes sp.	200-600	5.68E+01	7.37E+02	1.07E+06	2.55E+11	2.76E-02	1.99E-02	5.25E-01	6.82E+00
	600-1200	4.52E+02	5.34E+04	4.09E+07	7.67E+14	2.59E-01	1.58E+00	2.26E+01	1.87E+04
	All Depths	5.09E+02	5.42E+04	4.20E+07	7.67E+14	1.16E-01	6.21E-01	8.92E+00	7.19E+03
Psolus sp.	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	5.49E-02	3.02E-03	3.43E+03	1.18E+07	5.83E-05	2.99E-07	3.64E-03	1.17E-03
	All Depths	5.49E-02	3.02E-03	3.43E+03	1.18E+07	2.22E-05	1.14E-07	1.39E-03	4.45E-04
Psolus fabricii	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.71E-01	1.38E-01	2.44E+04	5.97E+08	2.29E-04	4.62E-06	1.51E-02	2.00E-02
	All Depths	3.71E-01	1.38E-01	2.44E+04	5.97E+08	8.73E-05	1.76E-06	5.74E-03	7.61E-03
Psolus squamatus	200-600	1.89E-02	3.56E-04	3.14E+03	9.89E+06	1.02E-05	1.49E-08	1.70E-03	4.15E-04
	600-1200	1.06E+01	6.74E+01	4.35E+05	1.24E+11	5.93E-03	1.50E-03	2.36E-01	2.54E+00
	All Depths	1.06E+01	6.74E+01	4.38E+05	1.24E+11	2.27E-03	5.77E-04	9.09E-02	9.73E-01
Pannychia moseleyi	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	1.48E+03	7.28E+05	4.69E+07	7.95E+14	1.24E+00	4.86E+01	4.05E+01	5.98E+04
	All Depths	1.48E+03	7.28E+05	4.69E+07	7.95E+14	4.73E-01	1.87E+01	1.54E+01	2.30E+04
Scotoplanes theeli	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.40E+02	1.16E+05	5.47E+07	2.99E+15	1.56E-01	2.13E+00	2.50E+01	5.51E+04
	All Depths	3.40E+02	1.16E+05	5.47E+07	2.99E+15	5.93E-02	8.12E-01	9.53E+00	2.10E+04
Porifera	200-600	1.64E+03	2.66E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.87E+02	3.62E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.92E+03	3.03E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Aphrocallistes vastus	200-600	1.62E+03	3.30E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.91E+02	1.27E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.91E+03	3.43E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mycale loveni	200-600	3.83E+01	2.74E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.83E+01	2.74E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Halichondria panicea	200-600	6.44E+00	4.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.44E+00	4.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rhabdocalyptus sp.	200-600	7.53E+02	2.97E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	2.03E+02	1.89E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	9.57E+02	3.16E+05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Porifera (green sponge)	200-600	1.91E+01	2.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.91E+01	2.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 9. Continued.

SPECIES	STRATUM (Depth in meters)	BIOMASS (mt)	BIOMASS variance	POPULATION number	POPULATION variance	CPUE kg/ha	CPUE variance	CPUE no/ha	CPUE variance
Halichondria cf. *sitiens*	200-600	2.73E+00	4.74E+00	7.58E+04	4.89E+09	1.36E-03	2.38E-04	4.53E-02	2.56E-01
	600-1200	3.01E-02	9.04E-04	5.01E+03	2.51E+07	1.86E-05	3.05E-08	3.10E-03	8.48E-04
	All Depths	2.76E+00	4.74E+00	8.08E+04	4.91E+09	8.49E-04	1.47E-04	2.91E-02	1.58E-01
Hexactinellida	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	6.07E+00	3.68E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	6.07E+00	3.68E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Platyhelminthes	200-600	3.58E-01	4.50E-02	9.32E+03	2.84E+07	2.16E-04	2.41E-06	5.55E-03	1.45E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.58E-01	4.50E-02	9.32E+03	2.84E+07	1.34E-04	1.50E-06	3.43E-03	9.00E-04
Sipuncula	200-600	6.83E-01	3.27E-01	3.35E+05	8.26E+10	4.35E-04	1.91E-05	2.13E-01	4.82E+00
	600-1200	6.57E-03	4.31E-05	3.28E+03	1.08E+07	6.00E-06	3.17E-09	3.00E-03	7.91E-04
	All Depths	6.90E-01	3.27E-01	3.38E+05	8.26E+10	2.72E-04	1.18E-05	1.33E-01	2.99E+00
Terebratalia transversa	200-600	5.50E-01	1.45E-01	6.79E+04	2.50E+09	3.03E-04	6.25E-06	3.62E-02	9.68E-02
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	5.50E-01	1.45E-01	6.79E+04	2.50E+09	1.88E-04	3.88E-06	2.24E-02	6.00E-02
Laqueus californianus	200-600	1.04E+00	3.75E-01	9.43E+04	2.84E+09	5.47E-04	1.48E-05	4.96E-02	1.14E-01
	600-1200	5.39E-02	2.91E-03	1.01E+04	1.02E+08	4.75E-05	1.99E-07	8.91E-03	6.98E-03
	All Depths	1.09E+00	3.78E-01	1.04E+05	2.94E+09	3.57E-04	9.30E-06	3.41E-02	7.32E-02
Ascidian unident.	200-600	7.45E-01	2.04E-01	3.00E+05	8.27E+10	4.26E-04	9.31E-06	1.90E-01	4.80E+00
	600-1200	6.60E-02	3.39E-03	8.96E+03	4.04E+07	4.13E-05	1.14E-07	5.76E-03	1.45E-03
	All Depths	8.11E-01	2.07E-01	3.09E+05	8.27E+10	2.79E-04	5.83E-06	1.20E-01	2.97E+00
Thaliacea unident.	200-600	1.26E-02	1.58E-04	3.14E+03	9.86E+06	5.95E-06	5.06E-09	1.49E-03	3.16E-04
	600-1200	3.47E-01	4.94E-02	2.23E+04	1.26E+08	3.41E-04	4.49E-06	2.05E-02	9.29E-03
	All Depths	3.59E-01	4.95E-02	2.55E+04	1.36E+08	1.34E-04	1.73E-06	8.74E-03	3.79E-03
Ascidacea	200-600	3.35E-01	5.80E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.35E-01	5.80E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bivalvia shells	200-600	1.16E+01	9.78E+01	1.77E+04	1.38E+08	3.20E-04	7.42E-06	9.36E-03	6.17E-03
	600-1200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	1.16E+01	9.78E+01	1.77E+04	1.38E+08	1.95E-04	4.53E-06	5.70E-03	3.77E-03
Gastropod shells	200-600	4.86E+01	1.40E+02	7.36E+04	1.28E+09	1.77E-03	1.73E-04	3.11E-02	4.90E-02
	600-1200	1.76E+01	1.12E+02	1.77E+04	1.01E+08	1.55E-04	8.10E-07	1.43E-02	5.61E-03
	All Depths	6.61E+01	2.52E+02	9.13E+04	1.38E+09	1.10E-03	1.01E-04	2.40E-02	3.07E-02
Polychaete tubes	200-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-1200	3.91E+03	4.92E+06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	All Depths	3.91E+03	4.92E+06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 10. Abundance estimates by subarea and depth strata for Pacific Sleeper shark (*Somniosus pacificus*) from the 2004 BSS survey.

Somniosus pacificus **Pacific sleeper shark**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.15E+02	2.84E+03	1.33E+04	8.09E+06	2.87E-01	7.09E-03
	400-600	3.59E+01	4.62E+03	6.48E+02	1.05E+07	8.84E-02	1.14E-02
	600-800	1.40E+02	9.05E+03	6.28E+03	2.32E+07	8.02E-01	5.19E-02
	800-1,000	1.24E+02	8.42E+03	1.12E+04	3.04E+07	9.15E-01	6.21E-02
	1,000-1,200	9.39E+01	5.41E+03	3.99E+03	1.28E+07	8.48E-01	4.88E-02
2	200-400	9.40E+01	5.87E+03	8.84E+03	3.44E+07	8.12E-01	5.07E-02
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	9.97E+01	5.90E+03	3.75E+03	1.31E+07	1.69E+00	9.98E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	7.86E+01	6.62E+03	6.18E+03	4.38E+07	8.87E-01	7.47E-02
	600-800	7.89E+01	3.72E+03	6.23E+03	1.39E+07	8.67E-01	4.09E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	1.56E+02	8.42E+03	2.42E+04	7.09E+07	2.30E+00	1.25E-01
4	200-400	1.68E+02	3.83E+03	2.81E+04	1.46E+07	1.36E+00	3.09E-02
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	6.51E+02	4.40E+03	4.24E+05	1.93E+07	9.38E+00	6.34E-02
	800-1,000	2.34E+02	1.72E+04	5.46E+04	2.96E+08	3.30E+00	2.43E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.86E+02	2.26E+04	9.05E+03	1.19E+08	7.17E-01	8.70E-02
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	2.82E+01	3.37E+03	7.98E+02	1.14E+07	4.38E-01	5.23E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**2.28E+03**	**1.12E+05**	**6.01E+05**	**7.21E+08**	**6.34E-01**	**3.18E-02**

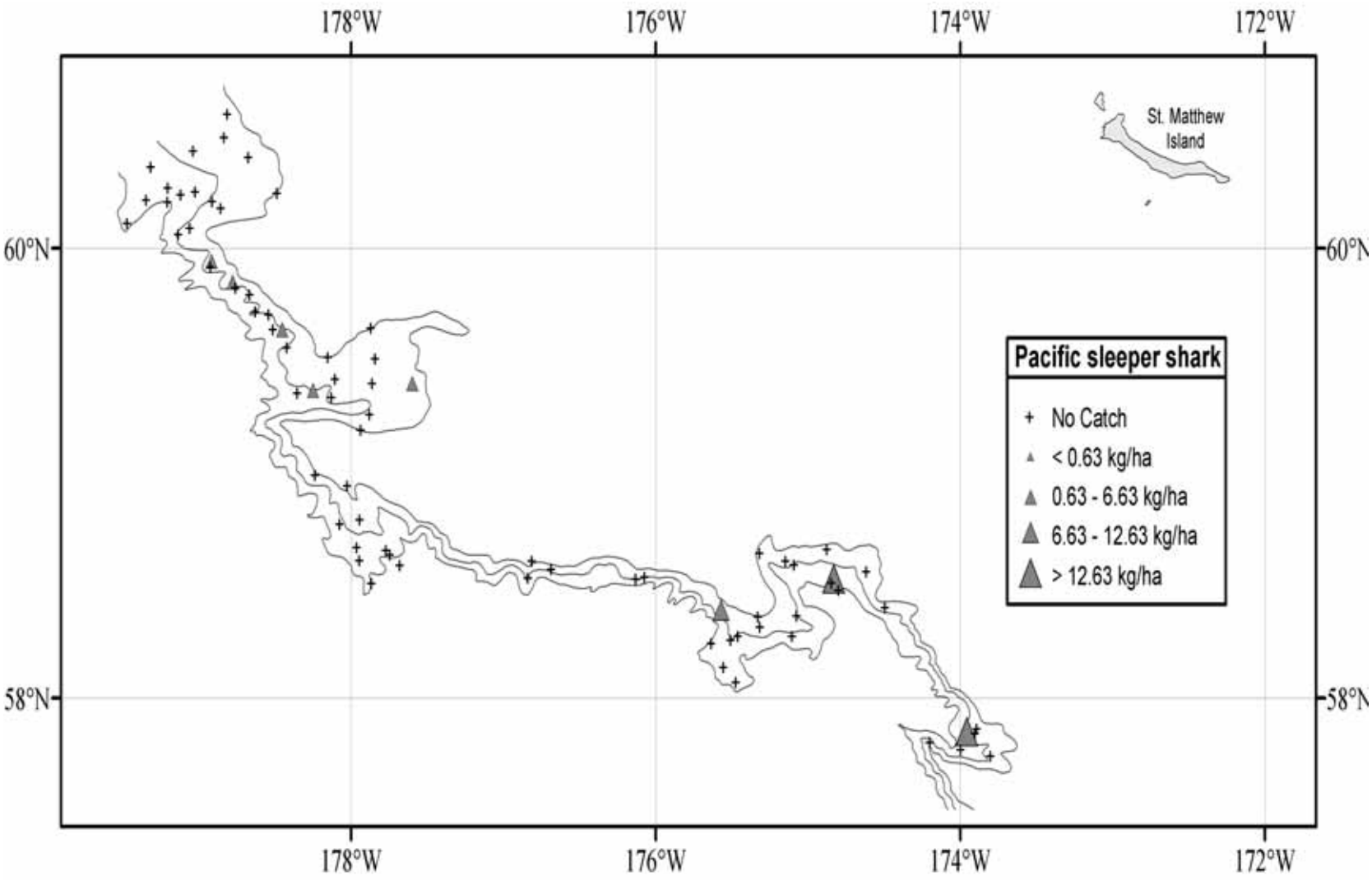

Figure 5. Distribution and relative abundance of Pacific sleeper shark from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

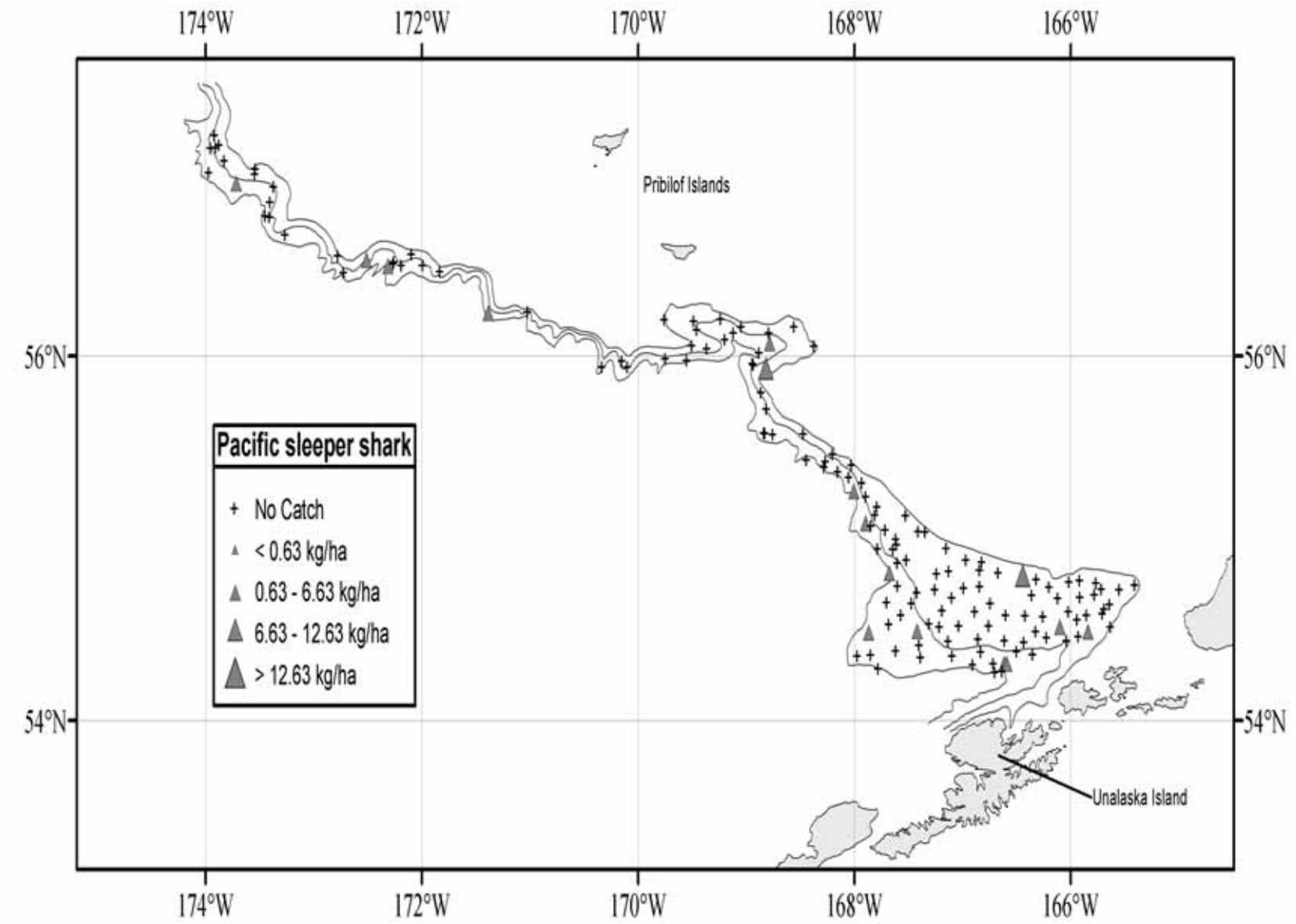

Figure 5. Continued.

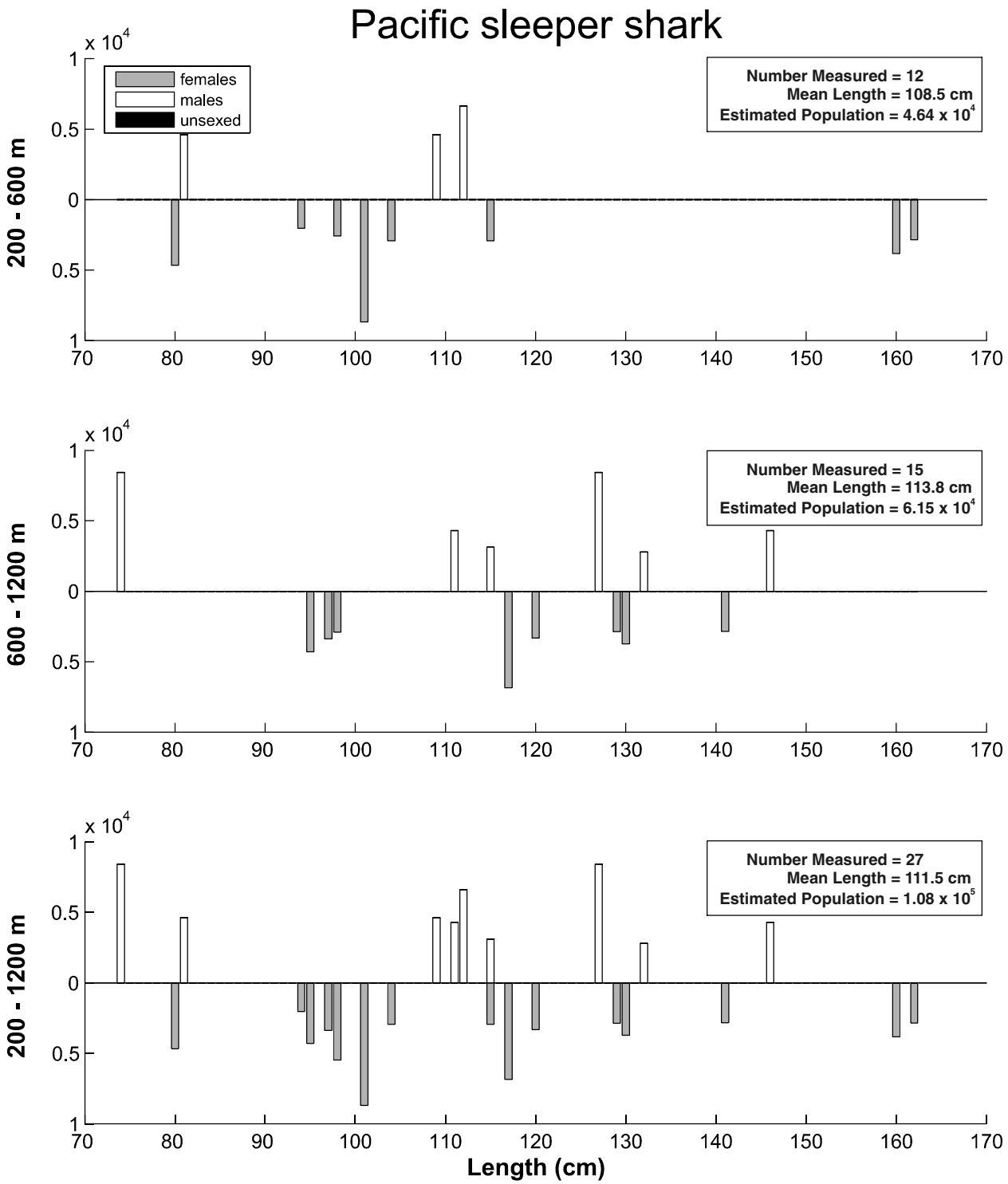

Figure 6. Size composition of the estimated Pacific sleeper shark population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 11. Abundance estimates by subarea and depth strata for Alaska skate (*Bathyraja parmifera*) from the 2004 BSS survey.

Bathyraja parmifera **Alaska skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	9.82E+02	2.30E+05	2.34E+05	9.19E+09	2.45E+00	5.74E-01
	400-600	4.24E+00	2.88E+04	1.80E+01	8.32E+08	1.04E-02	7.10E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	3.57E+01	4.64E+03	1.28E+03	2.16E+07	3.09E-01	4.01E-02
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	6.00E+02	6.84E+04	2.69E+05	3.43E+09	6.64E+00	7.57E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	4.49E+02	5.29E+04	1.11E+05	1.33E+09	3.63E+00	4.28E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	1.97E+02	3.05E+04	2.10E+04	3.29E+08	4.66E+00	7.21E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.98E+03	2.83E+05	1.29E+06	2.86E+10	7.62E+00	1.09E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**4.25E+03**	**6.99E+05**	**1.93E+06**	**4.37E+10**	**1.26E+00**	**2.15E-01**

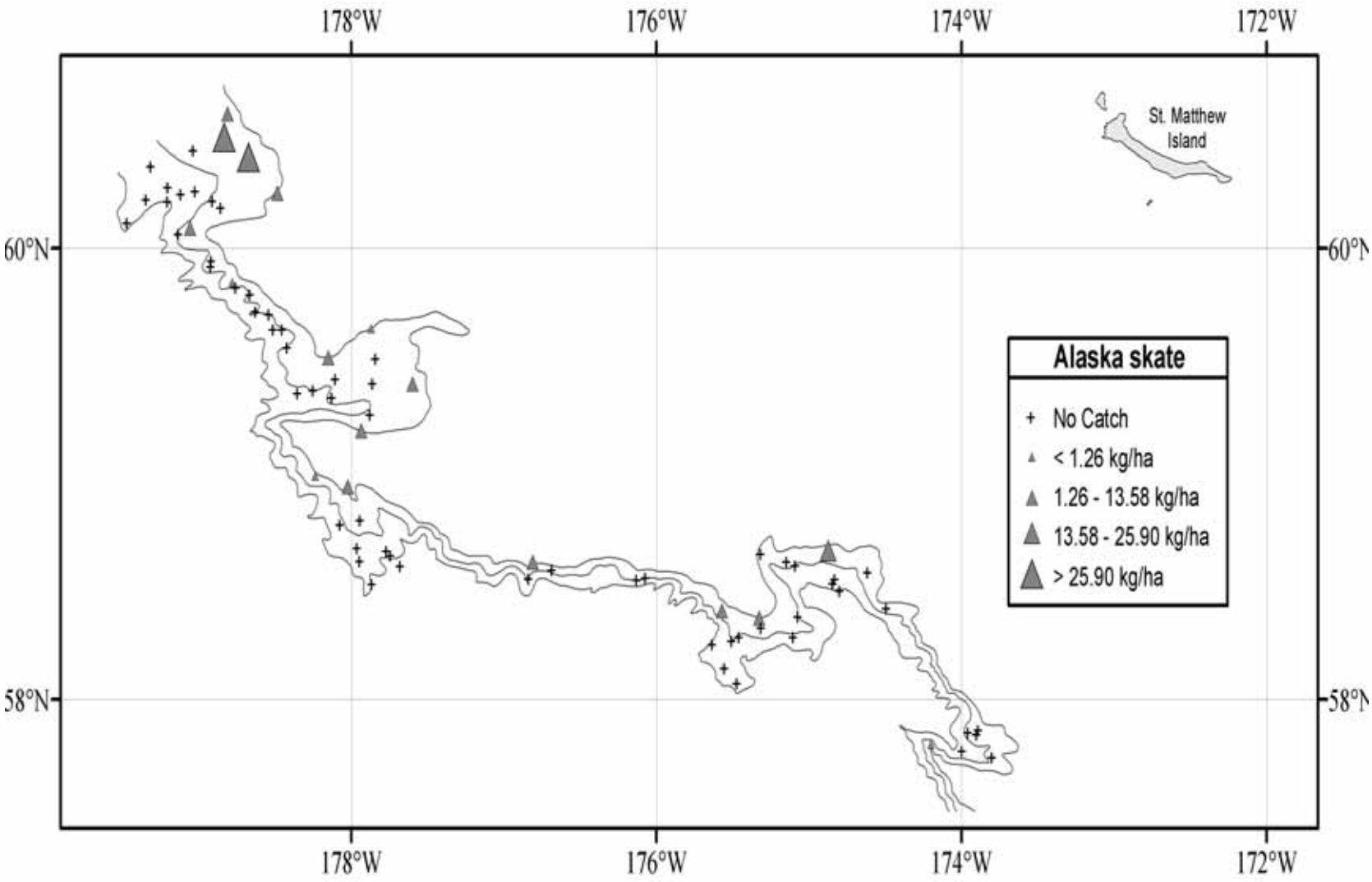

Figure 7. Distribution and relative abundance of Alaska skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

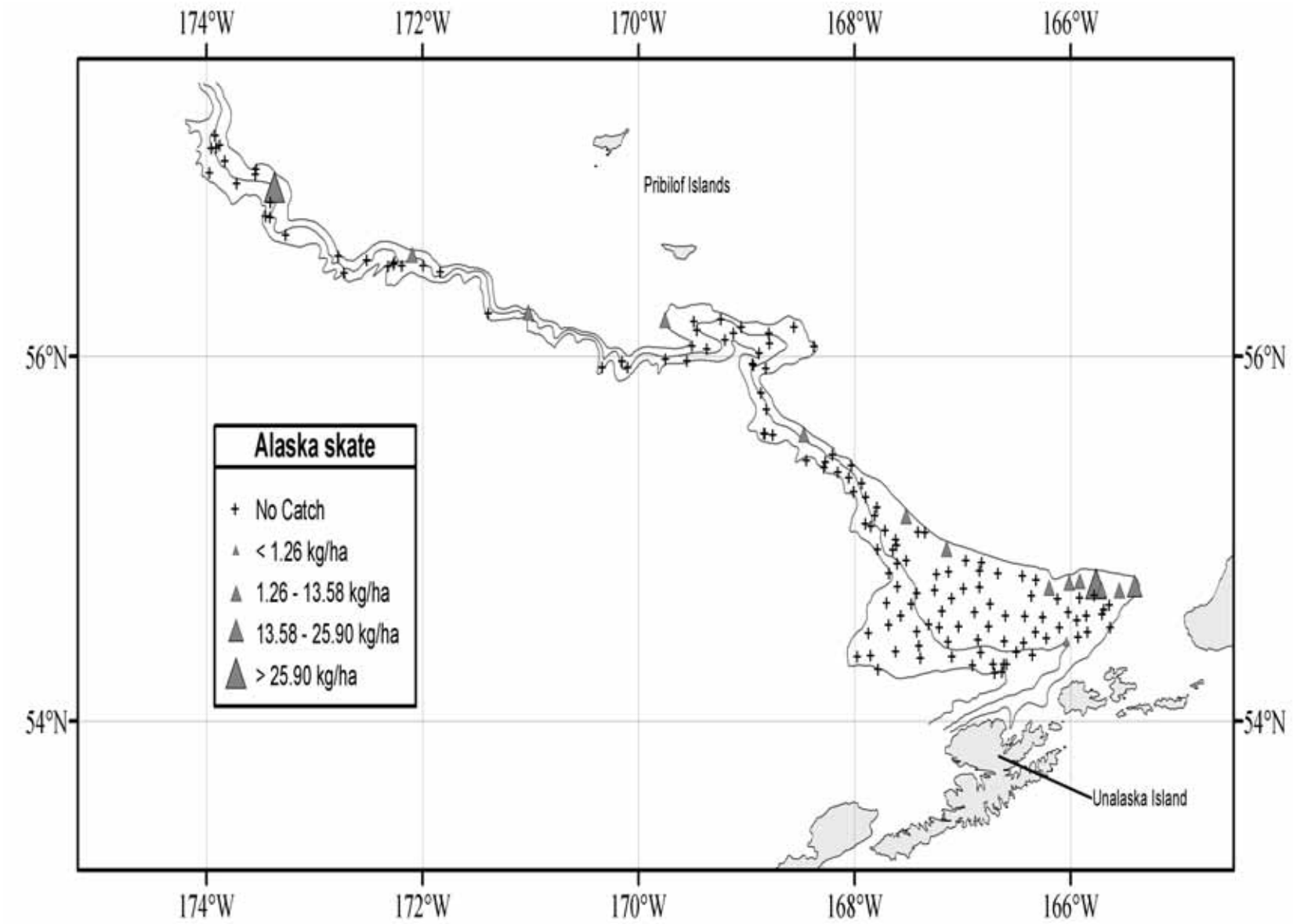

Figure 7. Continued.

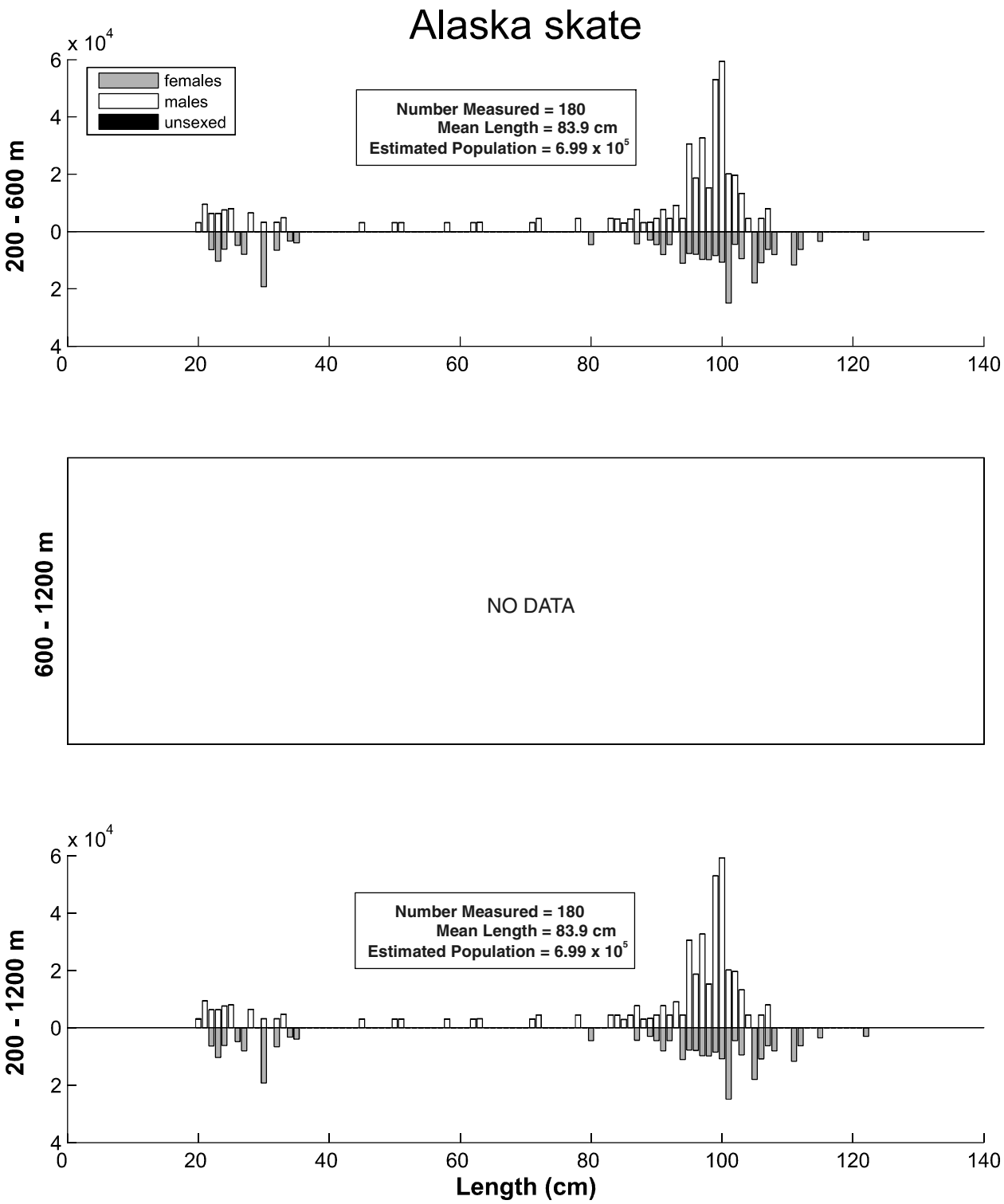

Figure 8. Size composition of the estimated Alaska skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 12. Abundance estimates by subarea and depth strata for Aleutian skate (*Bathyraja aleutica*) from the 2004 BSS survey.

Bathyraja aleutica **Aleutian skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	3.79E+03	4.68E+05	1.01E+06	1.06E+10	9.44E+00	1.17E+00
	400-600	1.50E+03	4.46E+05	1.58E+05	1.40E+10	3.69E+00	1.10E+00
	600-800	3.56E+02	1.91E+05	1.15E+04	3.47E+09	2.04E+00	1.10E+00
	800-1,000	2.18E+02	2.51E+05	3.95E+04	4.04E+10	1.61E+00	1.85E+00
	1,000-1,200	7.42E+00	3.34E+04	1.16E+01	1.67E+08	6.70E-02	3.01E-01
2	200-400	6.40E+02	1.94E+05	1.67E+04	5.15E+09	5.53E+00	1.68E+00
	400-600	4.10E+02	2.84E+05	1.36E+04	2.27E+10	5.82E+00	4.03E+00
	600-800	2.20E+02	1.38E+05	8.13E+03	2.61E+09	3.72E+00	2.33E+00
	800-1,000	3.49E+02	3.61E+05	2.30E+04	2.93E+10	6.32E+00	6.54E+00
	1,000-1,200	1.54E+02	5.43E+05	1.13E+04	1.65E+11	2.87E+00	1.01E+01
3	200-400	2.07E+03	2.41E+05	1.78E+06	1.90E+10	2.29E+01	2.67E+00
	400-600	1.97E+02	5.50E+04	4.22E+03	3.70E+08	2.22E+00	6.20E-01
	600-800	2.70E+02	3.01E+05	6.70E+03	1.26E+10	2.97E+00	3.31E+00
	800-1,000	6.86E+01	1.08E+05	1.21E+03	1.21E+09	9.36E-01	1.48E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	1.87E+03	2.90E+05	1.43E+06	1.47E+10	1.51E+01	2.35E+00
	400-600	3.85E+02	1.66E+05	2.16E+04	2.85E+09	5.28E+00	2.27E+00
	600-800	2.98E+02	3.21E+05	1.68E+03	3.53E+09	4.29E+00	4.62E+00
	800-1,000	1.00E+02	2.28E+05	3.99E+03	3.41E+10	1.42E+00	3.22E+00
	1,000-1,200	4.43E+01	1.50E+05	1.96E+03	2.24E+10	6.69E-01	2.26E+00
5	200-400	2.63E+02	3.43E+04	6.94E+04	1.17E+09	6.22E+00	8.09E-01
	400-600	2.07E+02	8.73E+04	1.91E+03	3.65E+08	4.87E+00	2.05E+00
	600-800	1.57E+01	1.08E+04	2.47E+02	1.17E+08	3.64E-01	2.50E-01
	800-1,000	2.66E+00	1.00E+04	7.06E+00	1.00E+08	4.81E-02	1.82E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	7.61E+02	1.45E+05	6.12E+04	2.80E+09	2.93E+00	5.58E-01
	400-600	4.73E+02	3.93E+05	8.98E+03	1.25E+10	2.77E+00	2.30E+00
	600-800	2.52E+02	4.35E+05	3.67E+03	1.07E+10	2.74E+00	4.74E+00
	800-1,000	6.92E+01	5.82E+04	2.33E+03	1.53E+09	1.07E+00	9.02E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.50E+04**	**5.94E+06**	**4.69E+06**	**4.33E+11**	**4.91E+00**	**1.82E+00**

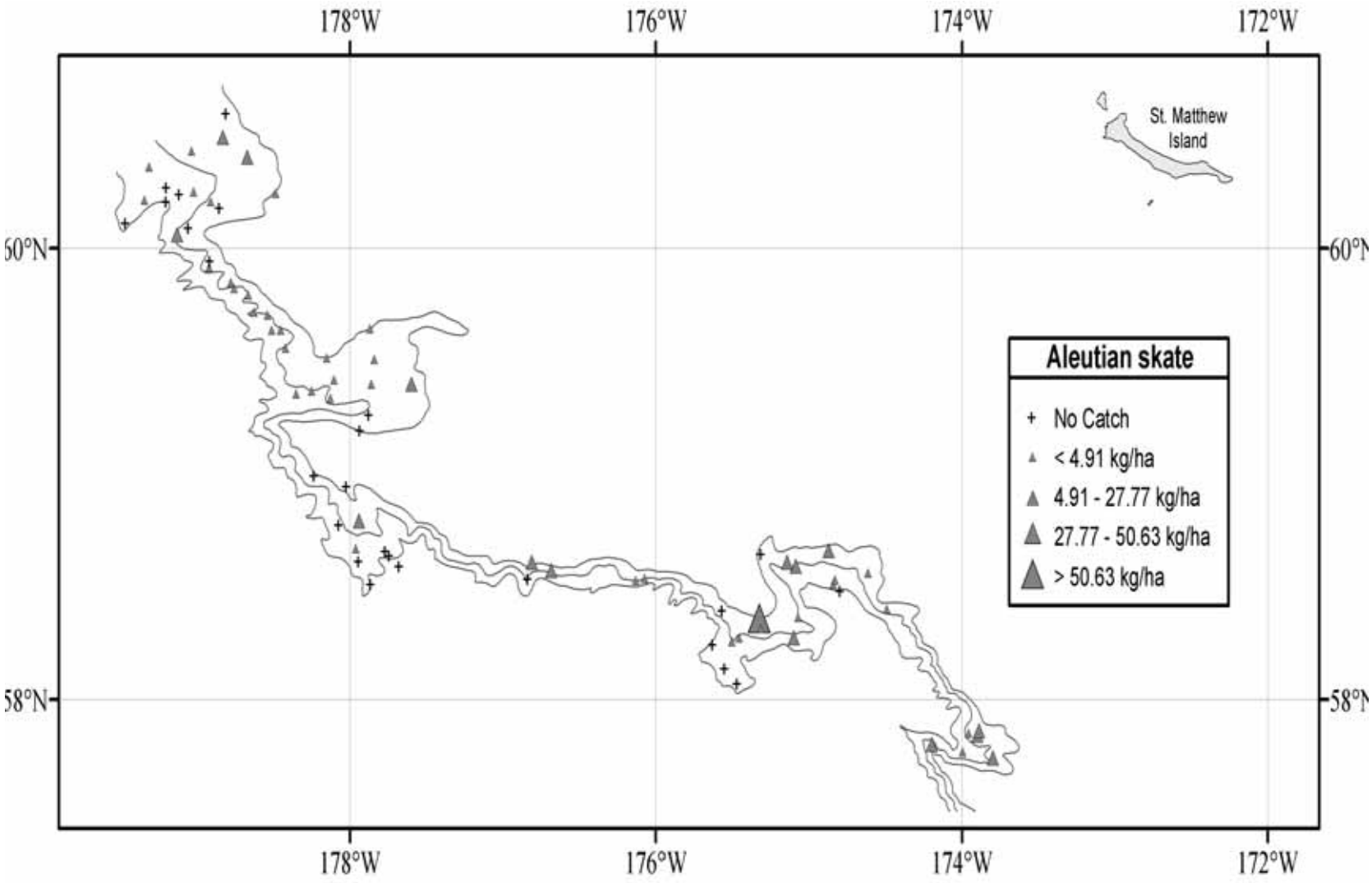

Figure 9. Distribution and relative abundance of Aleutian skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE and greater than four standard deviations above the mean CPUE.

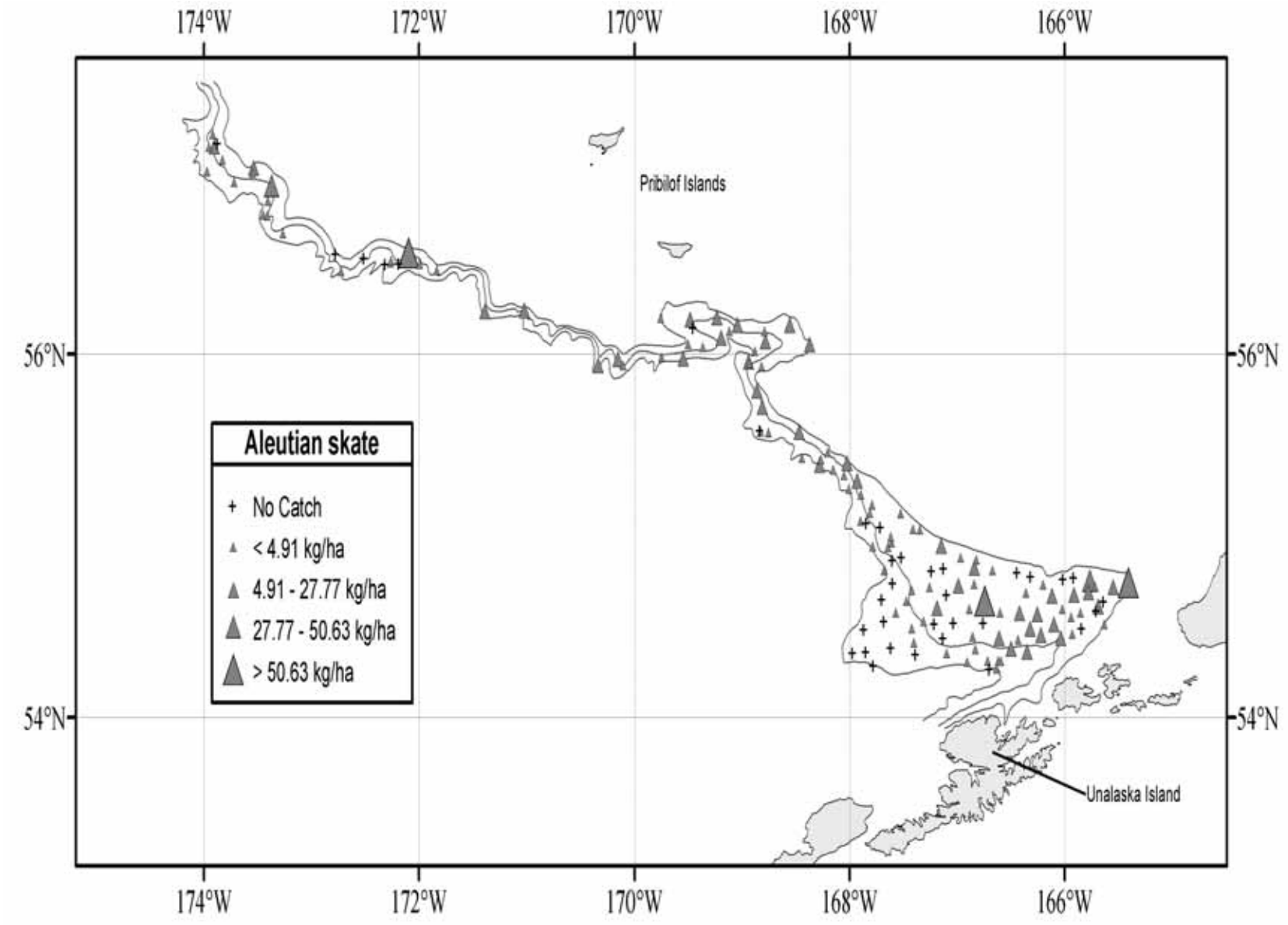

Figure 9. Continued.

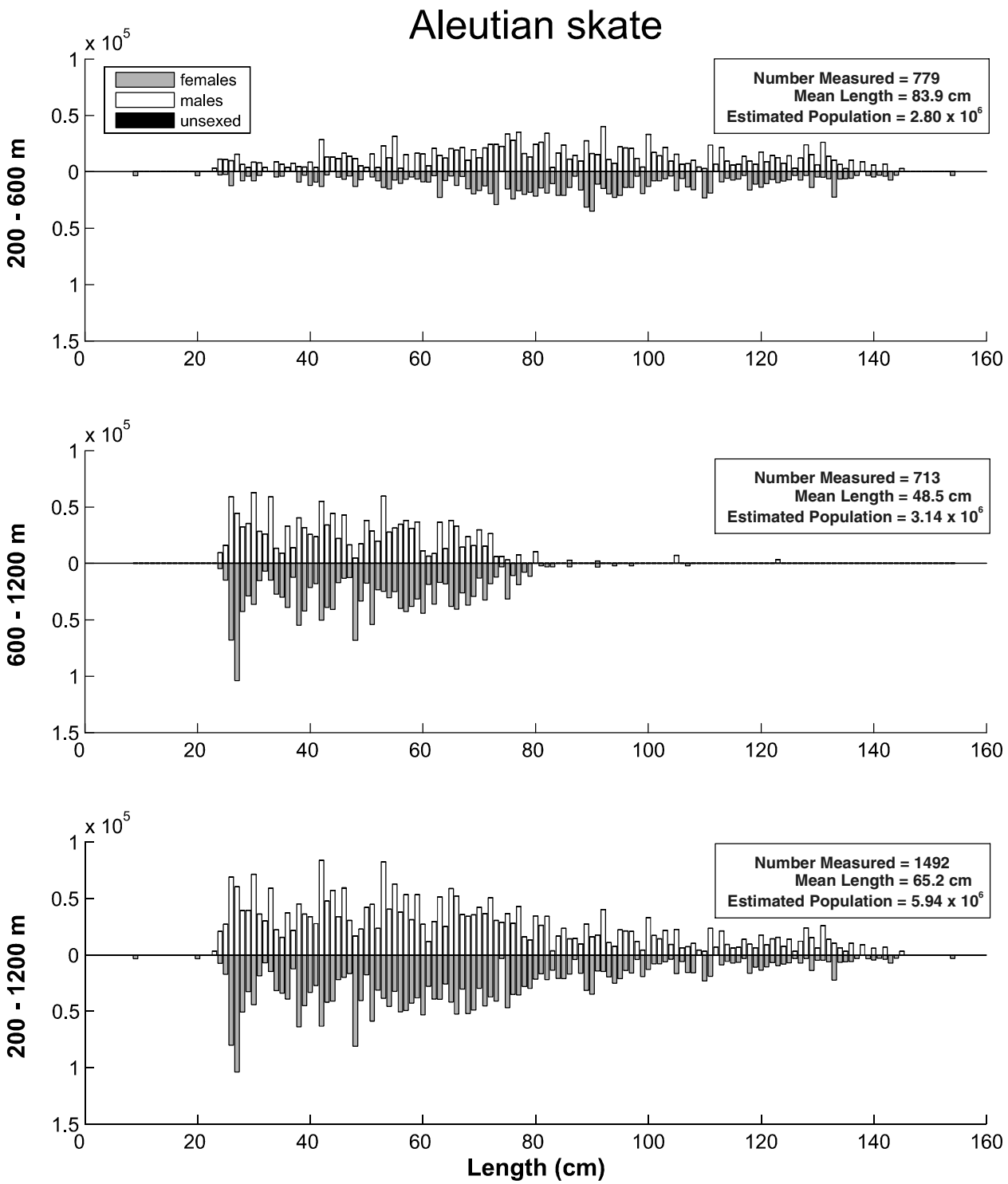

Figure 10. Size composition of the estimated Aleutian skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 13. Abundance estimates by subarea and depth strata for sandpaper skate (*Bathyraja interrupta*) from the 2004 BSS survey.

Bathyraja interrupta **sandpaper skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	8.97E+02	7.10E+05	2.41E+04	1.70E+10	2.23E+00	1.77E+00
	400-600	4.74E+02	2.97E+05	1.13E+04	4.20E+09	1.17E+00	7.30E-01
	600-800	4.11E+01	3.14E+04	9.06E+02	3.93E+08	2.36E-01	1.80E-01
	800-1,000	1.07E+01	9.80E+04	4.51E+01	3.31E+09	7.89E-02	7.23E-01
	1,000-1,200	6.36E-01	2.74E+03	4.05E-01	7.52E+06	5.75E-03	2.48E-02
2	200-400	6.48E+01	6.02E+04	8.61E+02	8.51E+08	5.60E-01	5.20E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	8.29E+01	5.60E+04	2.81E+03	7.03E+08	9.18E-01	6.19E-01
	400-600	2.92E+01	3.54E+04	4.34E+02	3.93E+08	3.30E-01	4.00E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	4.08E+01	7.79E+04	4.19E+02	1.37E+09	3.30E-01	6.30E-01
	400-600	2.52E+00	1.53E+04	2.54E+00	1.47E+07	3.45E-02	2.09E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	5.49E+01	2.48E+04	7.57E+02	1.54E+08	1.30E+00	5.84E-01
	400-600	4.88E+01	4.10E+04	2.38E+03	1.68E+09	1.15E+00	9.62E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.88E+02	2.59E+05	5.98E+03	7.10E+09	7.25E-01	9.97E-01
	400-600	1.78E+01	1.01E+05	9.71E+01	3.39E+09	1.04E-01	5.91E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.95E+03**	**1.81E+06**	**5.01E+04**	**4.06E+10**	**6.81E-01**	**5.98E-01**

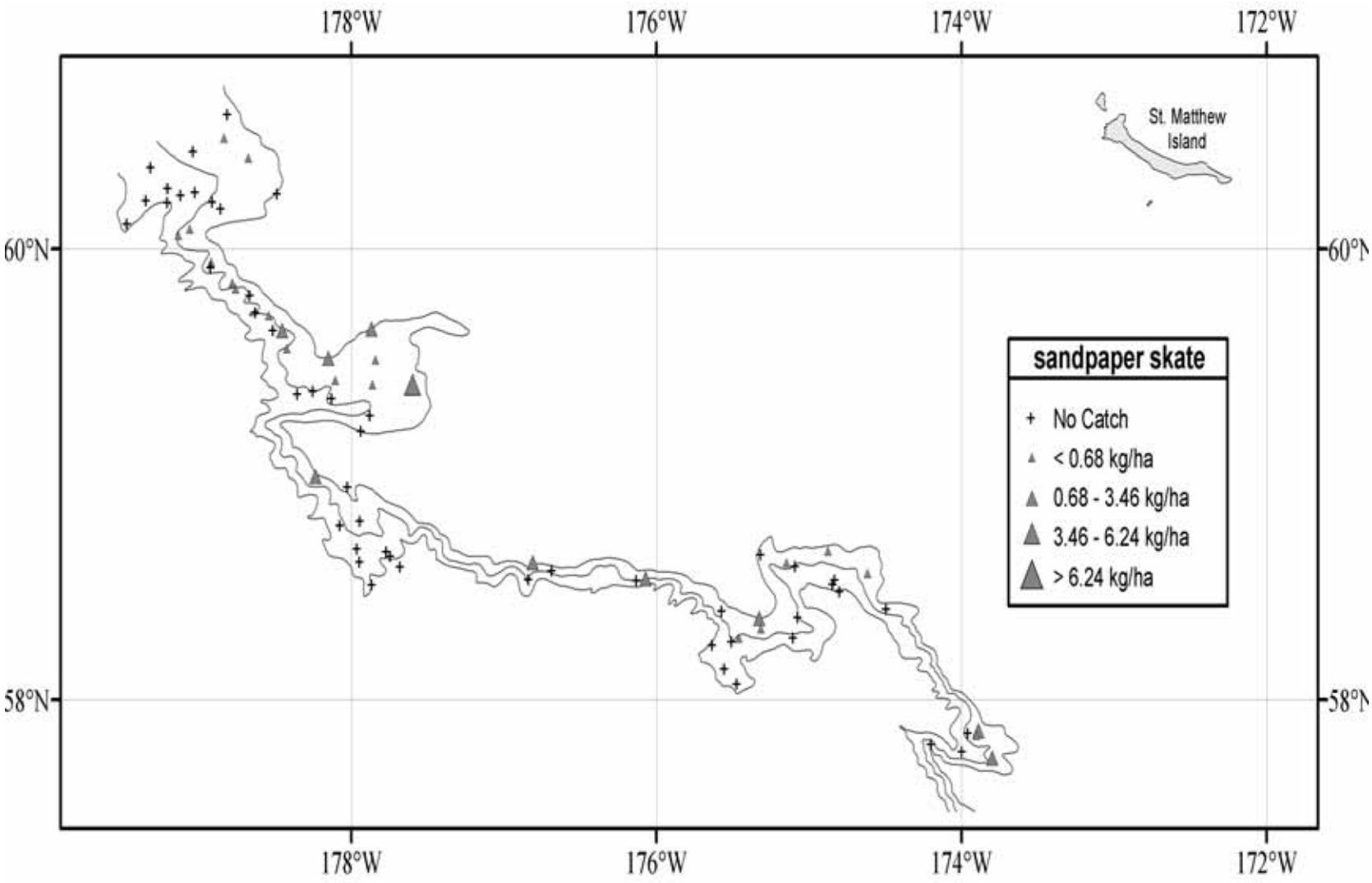

Figure 11. Distribution and relative abundance of sandpaper skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

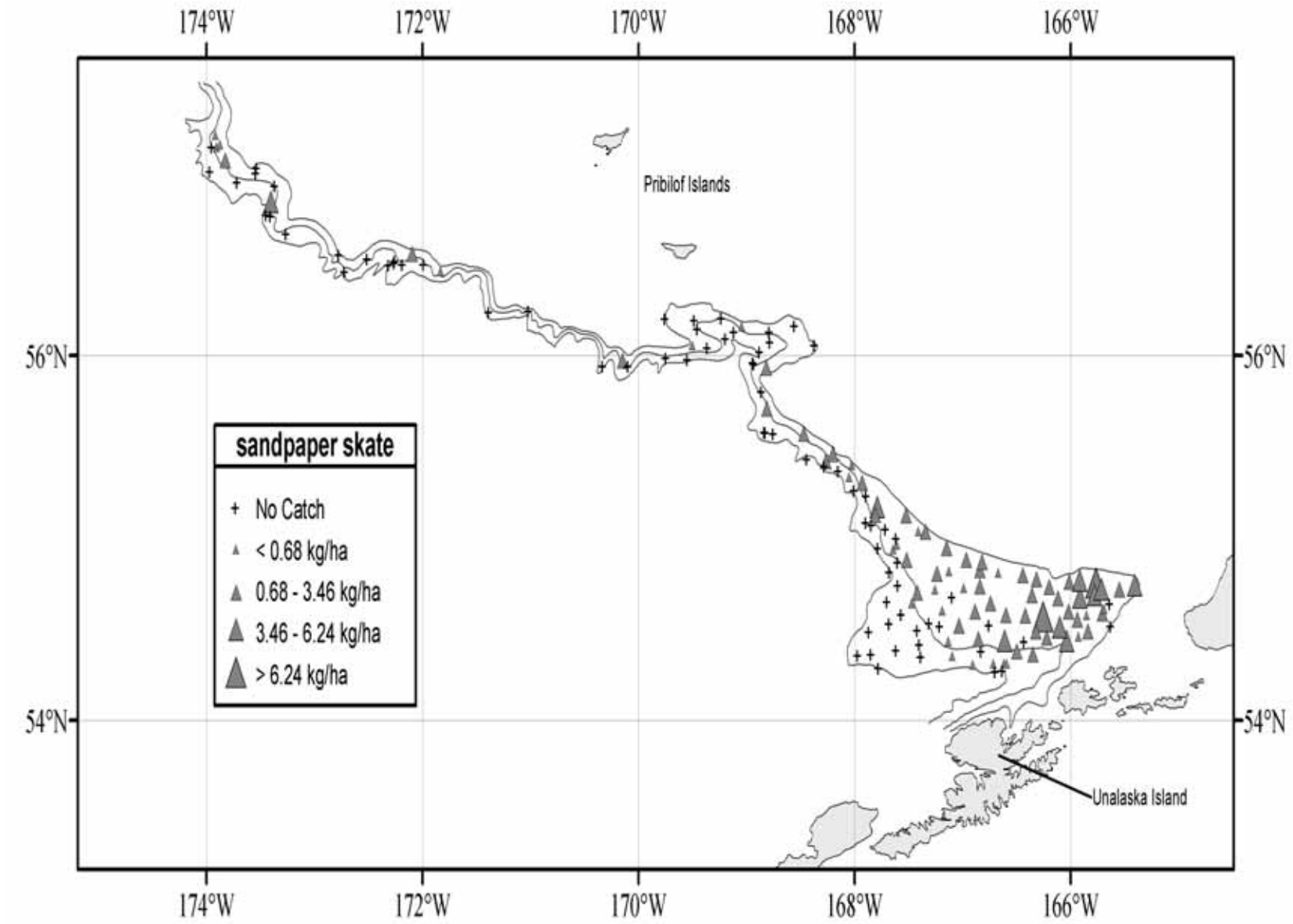

Figure 11. Continued.

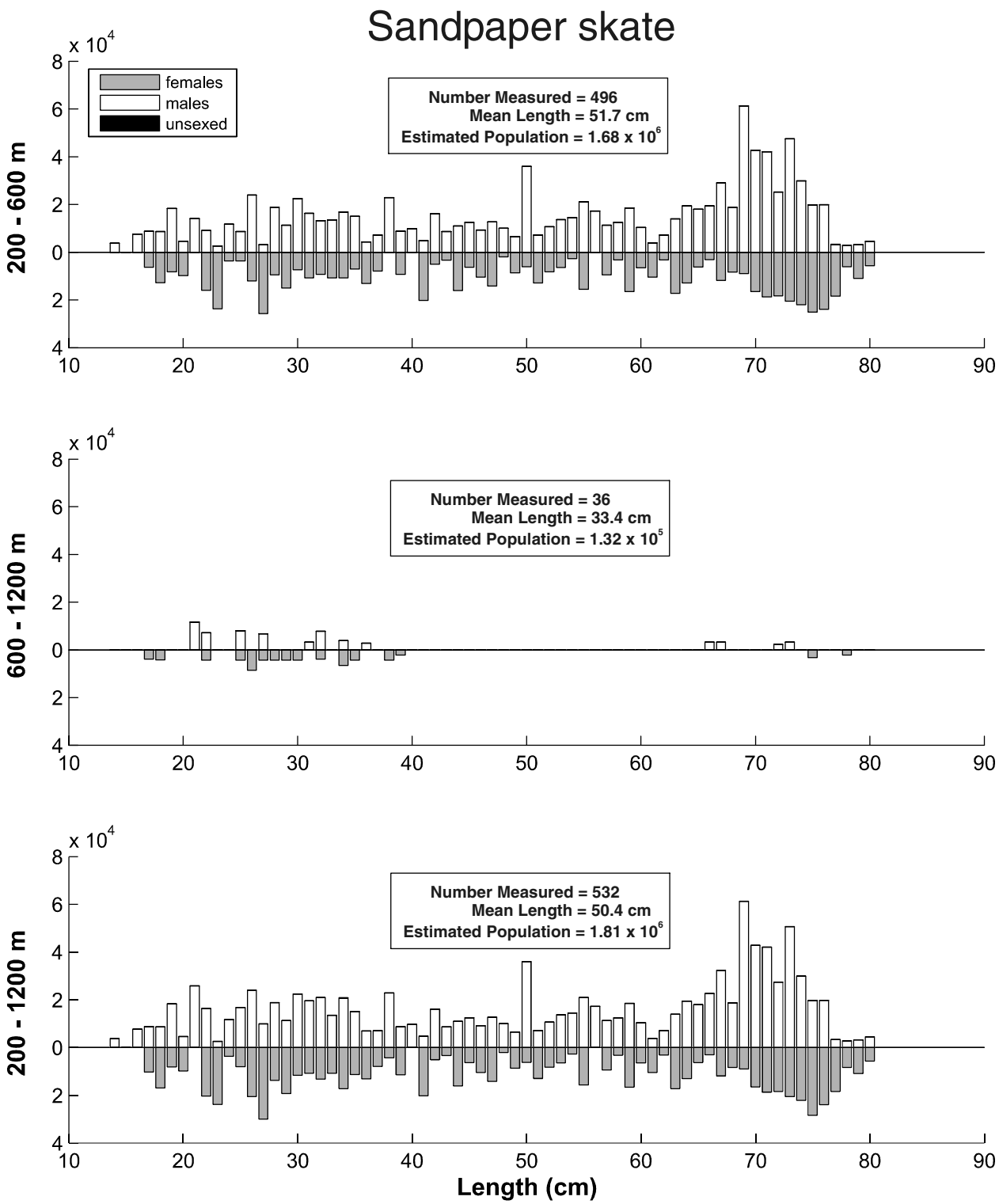

Figure 12. Size composition of the estimated sandpaper skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 14. Abundance estimates by subarea and depth strata for Commander skate (*Bathyraja lindbergi*) from the 2004 BSS survey.

Bathyraja lindbergi **Commander skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.55E+02	5.87E+04	1.49E+04	7.48E+08	6.26E-01	1.45E-01
	600-800	2.83E+01	7.76E+03	3.98E+02	2.85E+07	1.62E-01	4.45E-02
	800-1,000	9.98E+01	7.10E+04	9.96E+03	5.04E+09	7.37E-01	5.24E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.28E+02	6.44E+04	1.07E+04	8.02E+08	3.23E+00	9.13E-01
	600-800	2.95E+02	1.24E+05	2.58E+04	4.01E+09	5.00E+00	2.10E+00
	800-1,000	3.93E+01	6.14E+03	1.54E+03	3.77E+07	7.11E-01	1.11E-01
	1,000-1,200	7.02E-02	2.93E+03	4.93E-03	8.56E+06	1.31E-03	5.46E-02
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	6.43E+01	1.58E+04	2.29E+03	1.38E+08	7.25E-01	1.78E-01
	600-800	4.47E+02	3.11E+05	9.32E+03	2.57E+10	4.91E+00	3.41E+00
	800-1,000	1.55E+02	2.85E+05	9.81E+03	6.48E+10	2.11E+00	3.89E+00
	1,000-1,200	7.95E+00	1.60E+04	6.33E+01	2.57E+08	1.18E-01	2.37E-01
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.72E+02	8.99E+04	1.50E+04	1.93E+09	3.73E+00	1.23E+00
	600-800	4.58E+02	1.77E+05	7.78E+03	1.22E+09	6.61E+00	2.55E+00
	800-1,000	4.40E+01	4.36E+04	1.32E+03	1.39E+09	6.22E-01	6.16E-01
	1,000-1,200	1.70E-01	4.99E+03	2.88E-02	2.49E+07	2.56E-03	7.54E-02
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	5.80E+01	1.51E+04	1.38E+03	7.87E+07	1.36E+00	3.54E-01
	600-800	2.81E+01	1.08E+04	4.14E+02	5.84E+07	6.50E-01	2.51E-01
	800-1,000	4.21E-01	1.00E+04	1.77E-01	1.00E+08	7.63E-03	1.82E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	3.17E+02	1.02E+05	6.12E+03	5.31E+08	1.86E+00	5.99E-01
	600-800	9.59E+02	4.75E+05	2.45E+05	7.37E+10	1.05E+01	5.18E+00
	800-1,000	2.71E+02	6.19E+05	1.70E+03	1.06E+10	4.20E+00	9.60E+00
	1,000-1,200	1.66E+02	3.69E+05	2.75E+04	1.36E+11	3.34E+00	7.44E+00
All Areas and Depths Combined		**4.19E+03**	**2.88E+06**	**3.91E+05**	**3.27E+11**	**1.17E+00**	**7.79E-01**

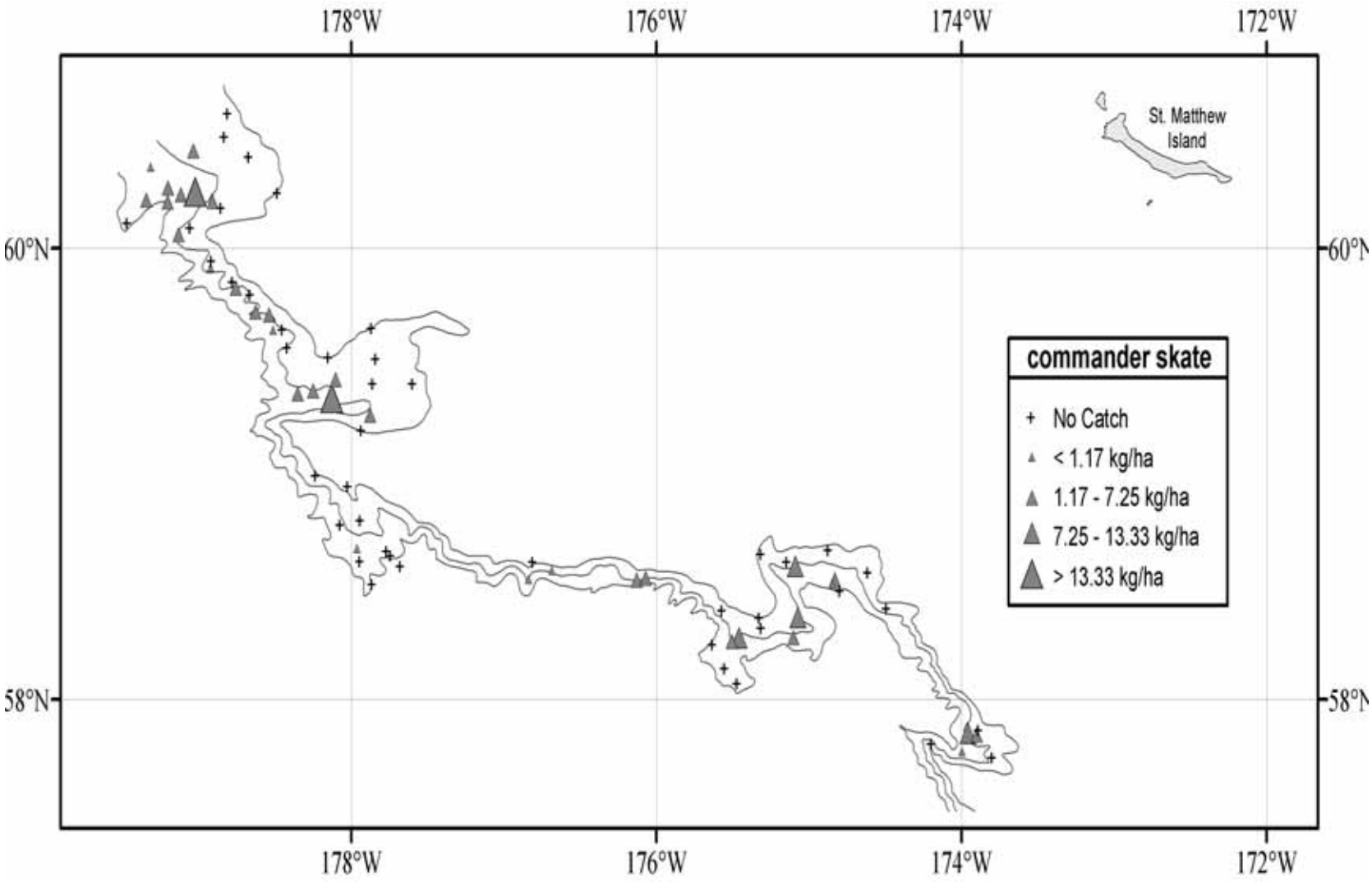

Figure 13. Distribution and relative abundance of Commander skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

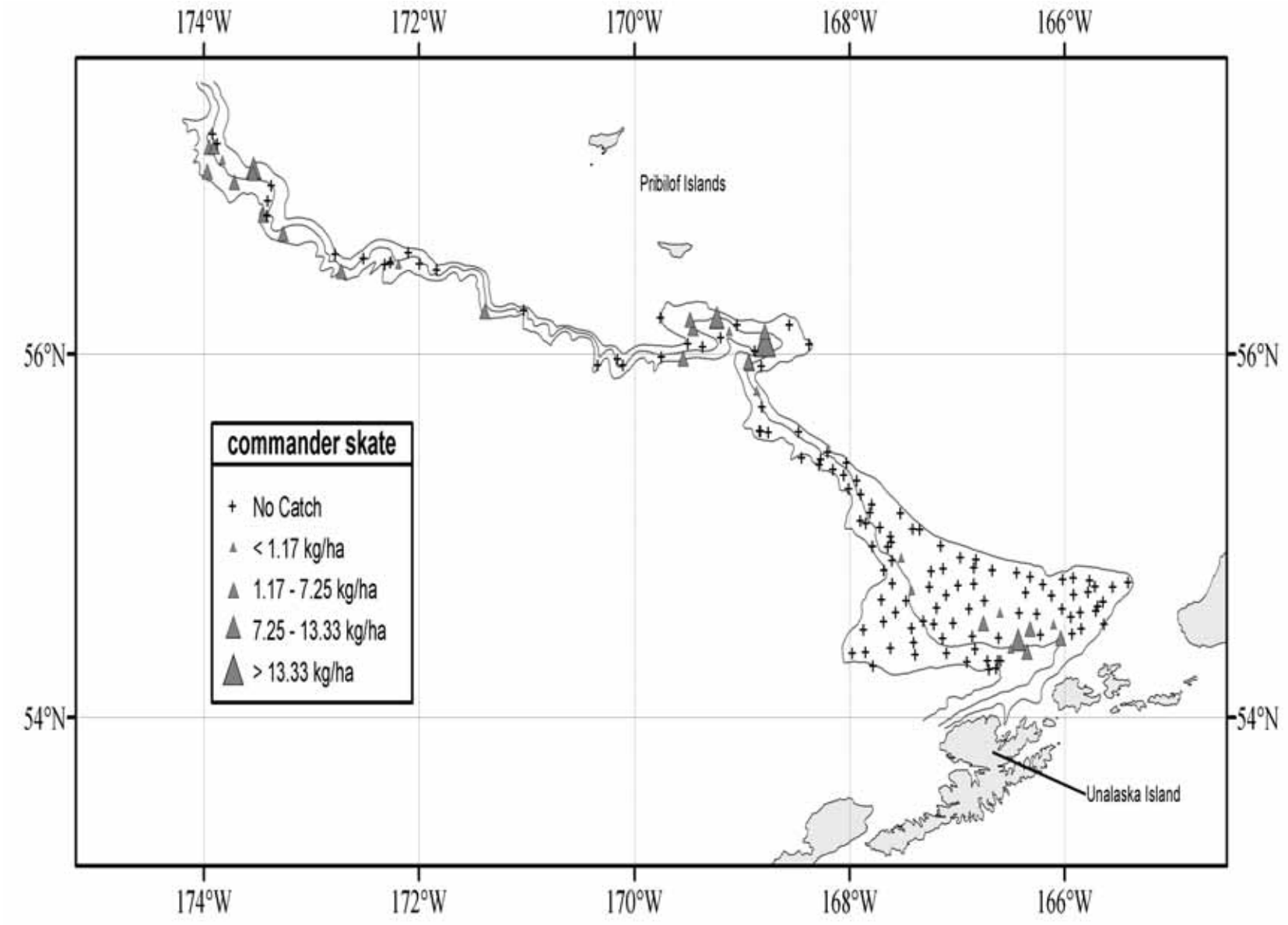

Figure 13. Continued.

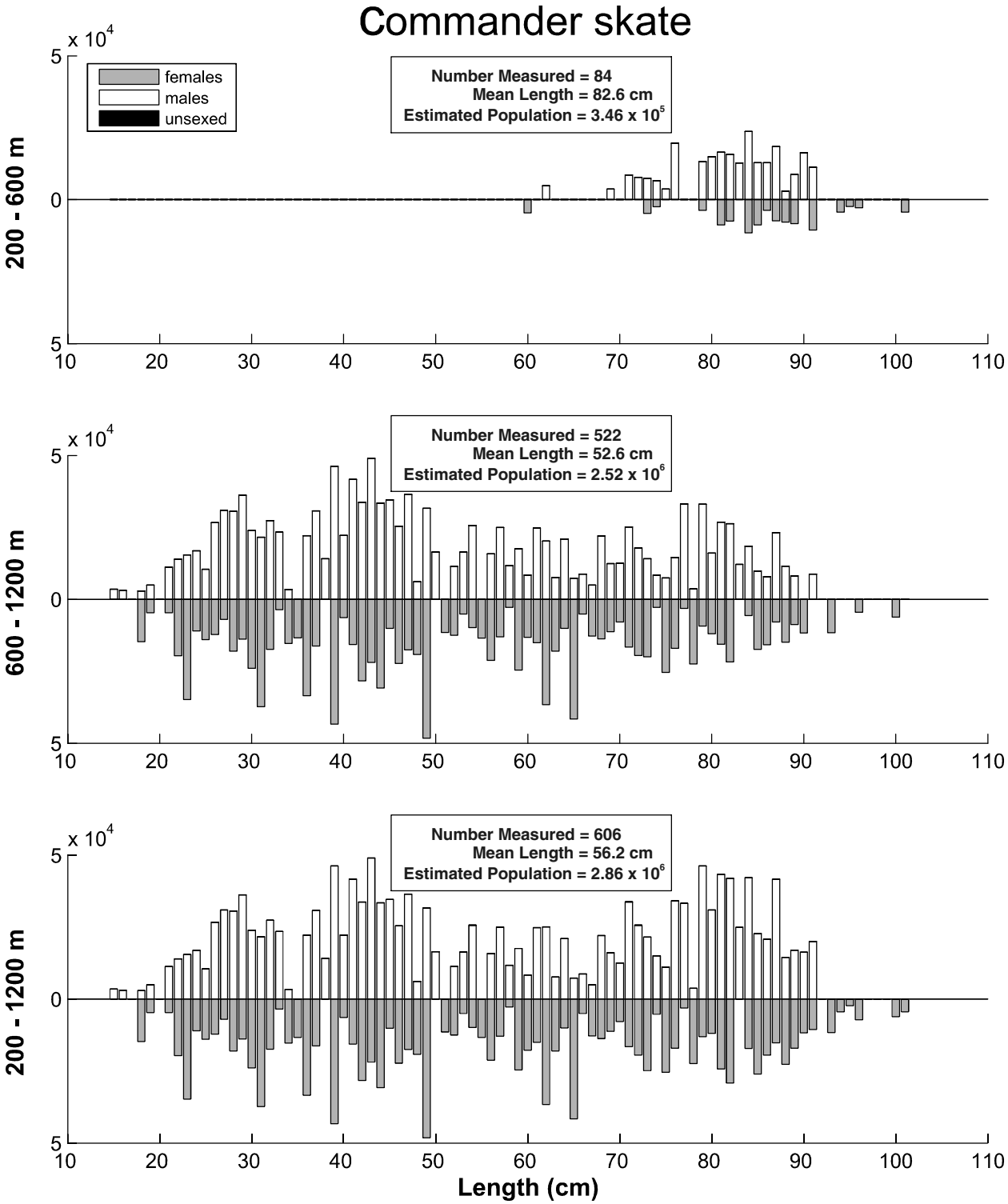

Figure 14. Size composition of the estimated Commander skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 15. Abundance estimates by subarea and depth strata for whiteblotched skate (*Bathyraja maculata*) from the 2004 BSS survey.

Bathyraja maculata **whiteblotched skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	4.09E+02	6.68E+04	2.83E+04	1.08E+09	1.02E+00	1.66E-01
	400-600	2.12E+02	3.19E+04	1.20E+04	1.64E+08	5.23E-01	7.85E-02
	600-800	1.61E+01	6.33E+03	2.60E+02	4.01E+07	9.25E-02	3.64E-02
	800-1,000	5.36E+01	5.07E+04	2.87E+03	2.57E+09	3.96E-01	3.74E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	3.62E+02	5.27E+04	2.88E+04	4.77E+08	3.13E+00	4.55E-01
	400-600	6.95E+02	1.27E+05	1.07E+05	4.08E+09	9.86E+00	1.80E+00
	600-800	6.66E+01	7.43E+04	1.26E+03	2.17E+09	1.13E+00	1.26E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	1.92E-01	3.43E+03	3.70E-02	1.18E+07	3.59E-03	6.41E-02
3	200-400	2.71E+01	3.41E+03	7.34E+02	1.16E+07	3.00E-01	3.77E-02
	400-600	1.70E+01	4.25E+03	2.89E+02	1.81E+07	1.92E-01	4.80E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	2.84E+02	6.08E+04	1.68E+04	5.49E+08	2.30E+00	4.92E-01
	400-600	1.10E+02	2.23E+04	7.23E+03	2.22E+08	1.50E+00	3.05E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	1.57E+02	2.92E+04	1.96E+03	6.35E+07	3.70E+00	6.90E-01
	400-600	1.98E+01	3.41E+03	3.93E+02	1.17E+07	4.66E-01	8.02E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	4.92E+02	8.52E+04	5.76E+04	1.50E+09	1.90E+00	3.28E-01
	400-600	4.74E+02	2.62E+05	3.74E+04	1.03E+10	2.78E+00	1.53E+00
	600-800	5.38E+01	1.95E+04	2.89E+03	3.80E+08	5.86E-01	2.12E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**3.45E+03**	**9.03E+05**	**3.06E+05**	**2.37E+10**	**1.07E+00**	**2.69E-01**

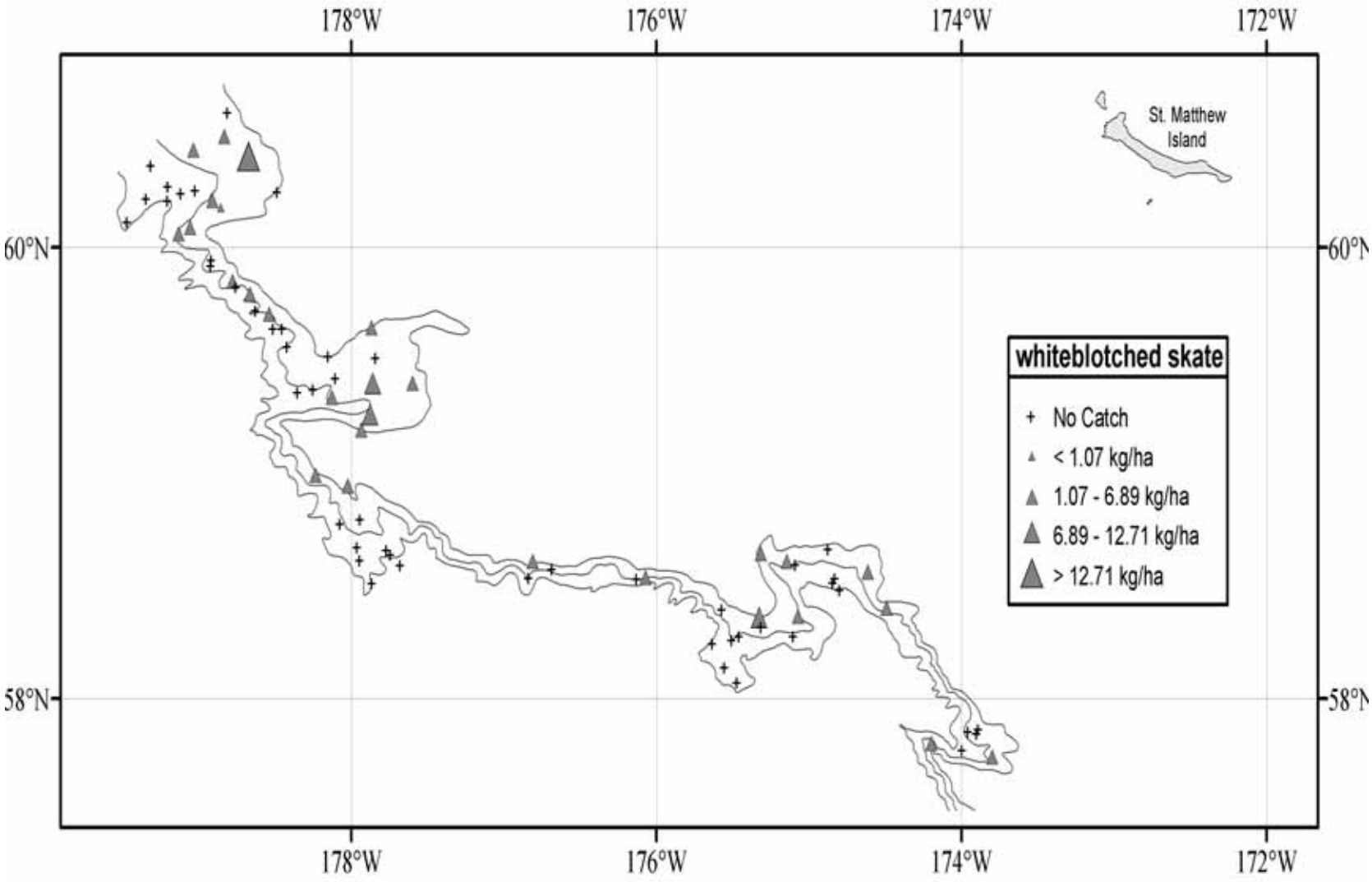

Figure 14. Distribution and relative abundance of whiteblotched skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

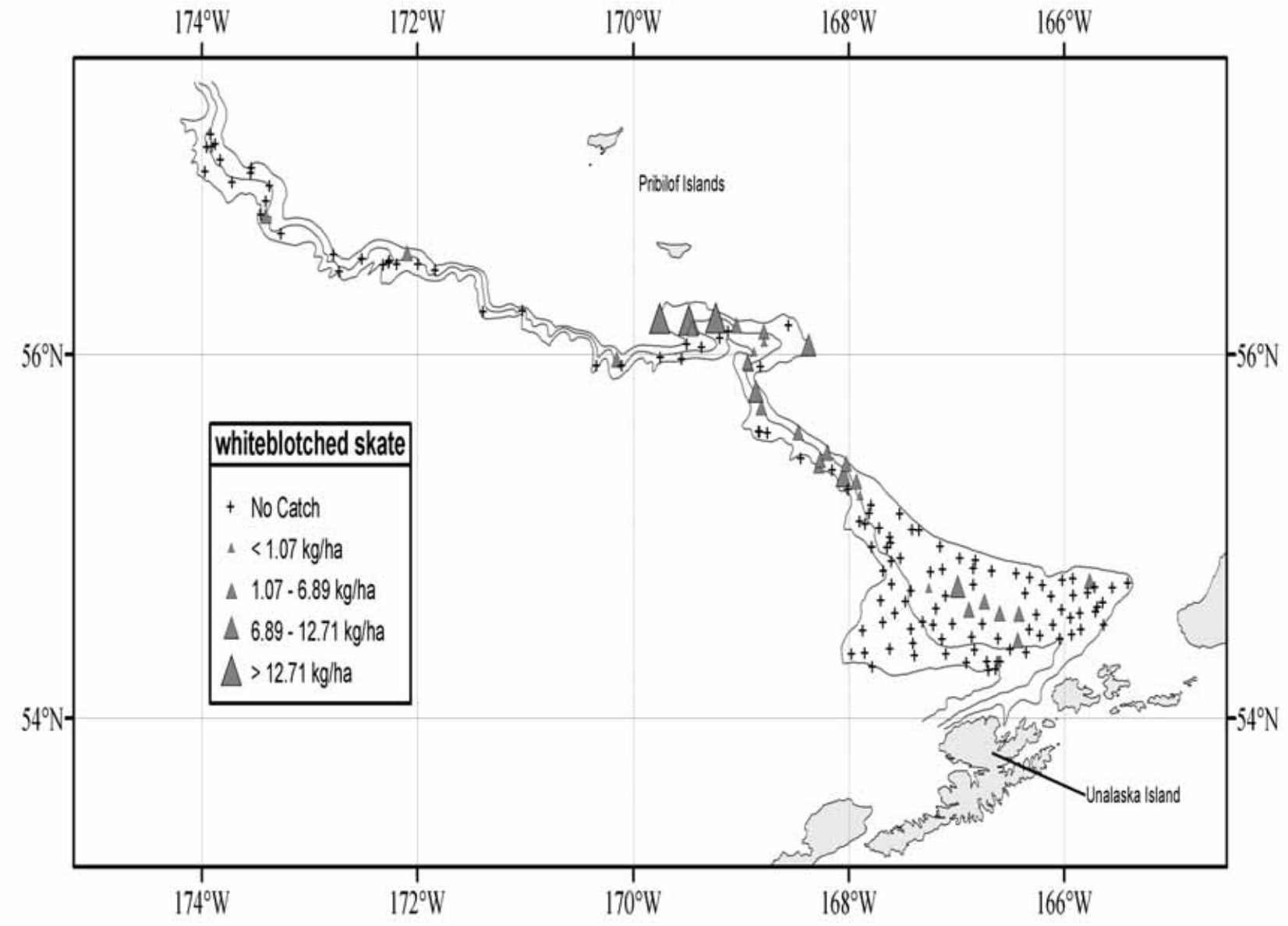

Figure 15. Continued.

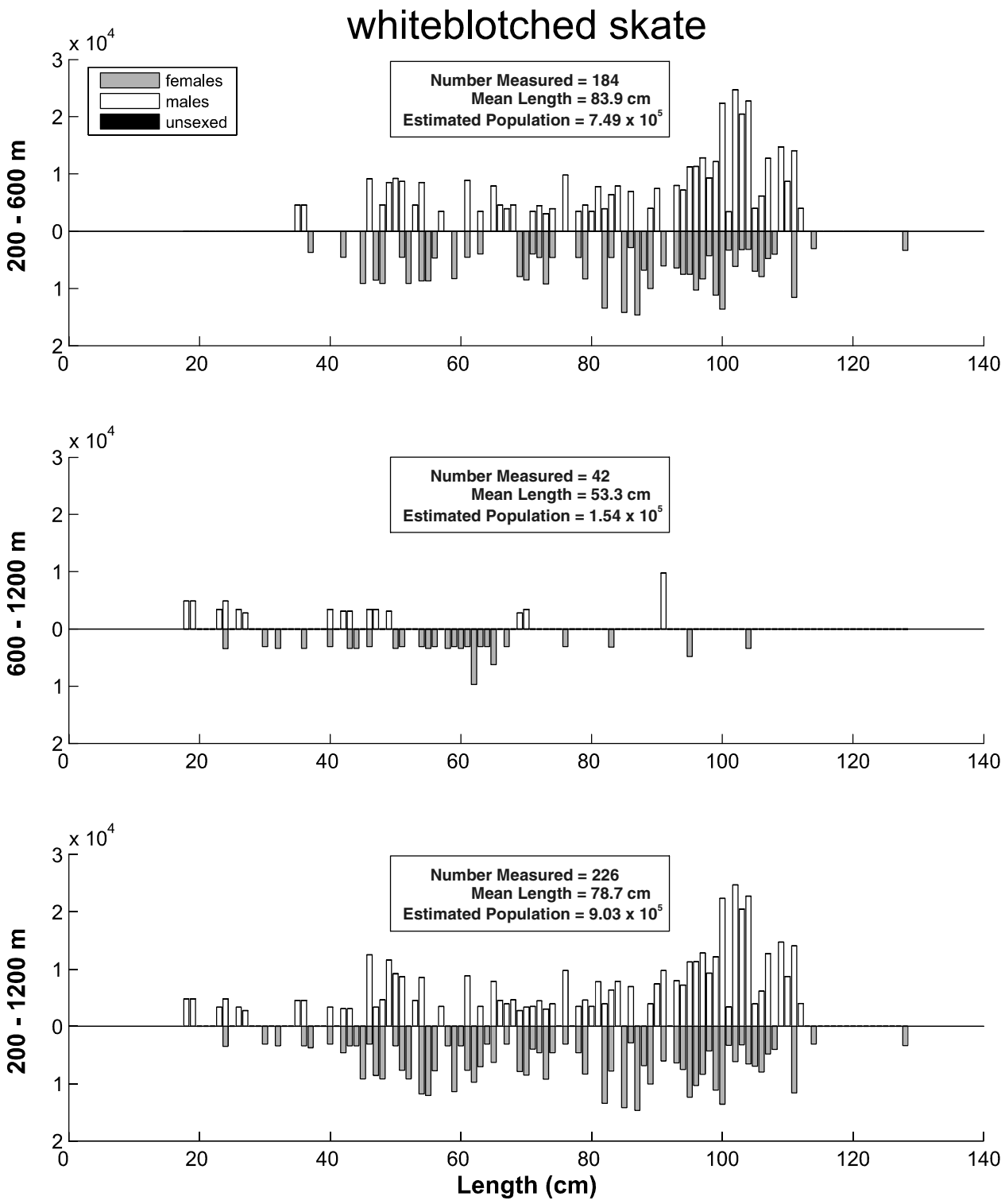

Figure 16. Size composition of the estimated whiteblotched skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 16. Abundance estimates by subarea and depth strata for whitebrow skate (*Bathyraja minispinosa*) from the 2004 BSS survey

Bathyraja minispinosa **whitebrow skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.50E+02	4.96E+04	4.13E+03	4.70E+08	3.74E-01	1.24E-01
	400-600	4.63E+02	1.94E+05	9.24E+04	1.43E+10	1.14E+00	4.77E-01
	600-800	5.16E+01	3.91E+04	3.87E+02	1.44E+08	2.96E-01	2.25E-01
	800-1,000	2.67E+01	3.25E+04	3.63E+02	2.80E+08	1.97E-01	2.40E-01
	1,000-1,200	9.90E+00	1.03E+05	4.74E+01	4.95E+09	8.94E-02	9.31E-01
2	200-400	7.55E+01	2.92E+04	7.44E+02	1.17E+08	6.52E-01	2.52E-01
	400-600	5.79E+01	2.12E+04	6.89E+02	1.02E+08	8.21E-01	3.01E-01
	600-800	2.04E+01	1.18E+04	1.17E+02	3.09E+07	3.45E-01	2.00E-01
	800-1,000	4.35E+01	4.41E+04	5.68E+02	5.05E+08	7.87E-01	7.98E-01
	1,000-1,200	2.93E+00	1.22E+04	3.92E+00	7.37E+07	5.47E-02	2.28E-01
3	200-400	8.10E+00	3.14E+03	6.56E+01	9.89E+06	8.96E-02	3.48E-02
	400-600	9.22E+00	3.97E+03	8.50E+01	1.57E+07	1.04E-01	4.48E-02
	600-800	3.67E+01	3.90E+04	2.69E+02	2.25E+08	4.03E-01	4.28E-01
	800-1,000	1.65E+00	2.18E+04	2.71E+00	4.75E+08	2.25E-02	2.98E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	7.54E+01	4.44E+04	2.19E+03	7.04E+08	1.03E+00	6.08E-01
	600-800	3.53E+01	5.56E+04	5.04E+02	1.09E+09	5.08E-01	8.02E-01
	800-1,000	1.22E+01	3.69E+04	7.10E+01	4.59E+08	1.72E-01	5.22E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.09E+02	4.68E+04	1.63E+03	5.88E+07	2.55E+00	1.10E+00
	600-800	2.37E+00	2.85E+03	5.63E+00	8.13E+06	5.49E-02	6.60E-02
	800-1,000	3.33E+00	1.00E+04	1.11E+01	1.00E+08	6.03E-02	1.82E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.84E+02	8.64E+04	2.72E+03	6.05E+08	7.09E-01	3.33E-01
	400-600	2.77E+02	1.84E+05	1.48E+04	4.27E+09	1.62E+00	1.08E+00
	600-800	8.23E+01	1.35E+05	1.72E+03	2.12E+09	8.97E-01	1.47E+00
	800-1,000	4.77E+00	3.48E+04	1.79E+01	7.23E+08	7.40E-02	5.39E-01
	1,000-1,200	1.36E+01	6.37E+03	1.84E+02	4.05E+07	2.73E-01	1.28E-01
All Areas and Depths Combined		**1.76E+03**	**1.25E+06**	**1.24E+05**	**3.19E+10**	**5.54E-01**	**3.75E-01**

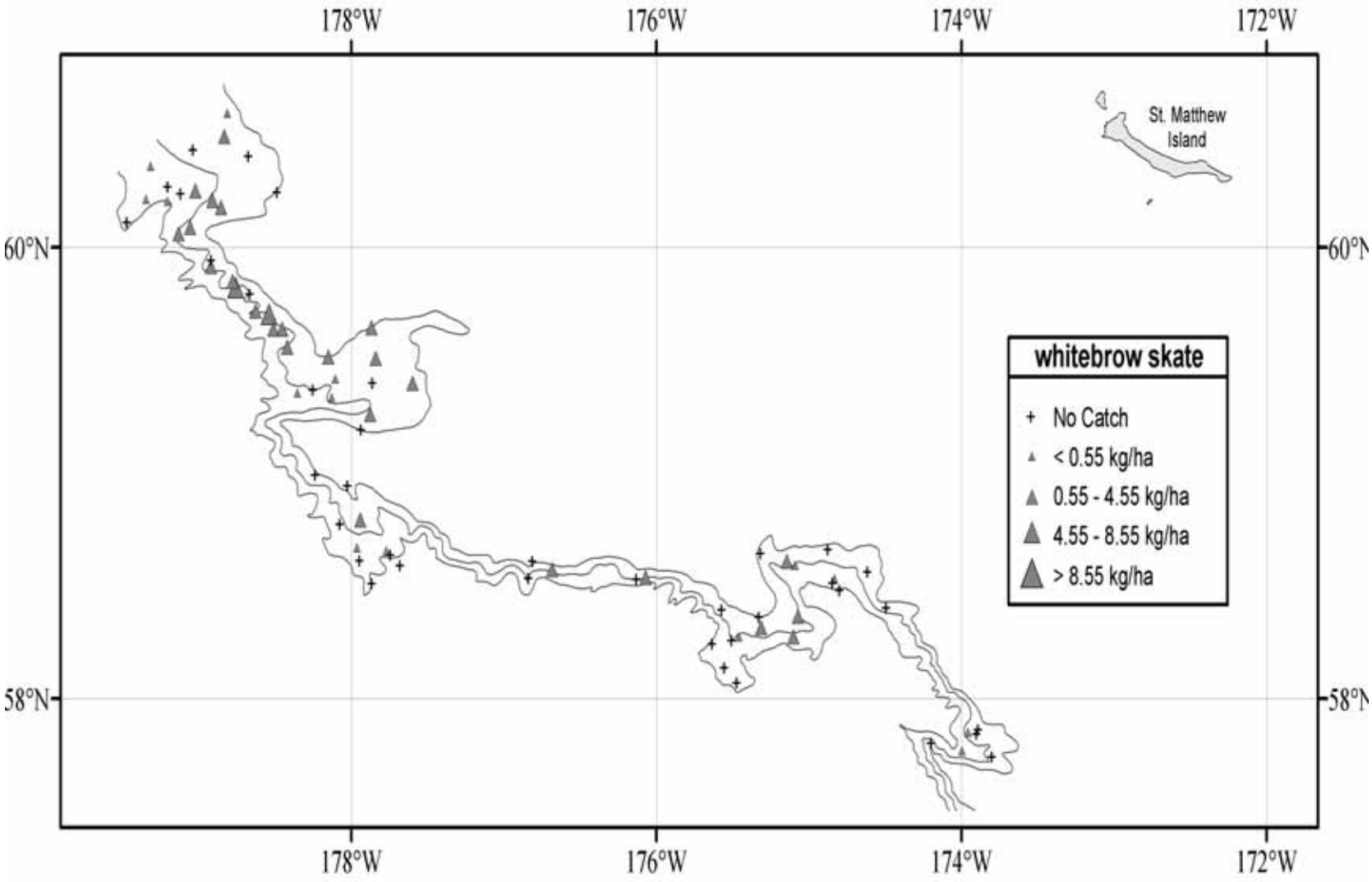

Figure 17. Distribution and relative abundance of whitebrow skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

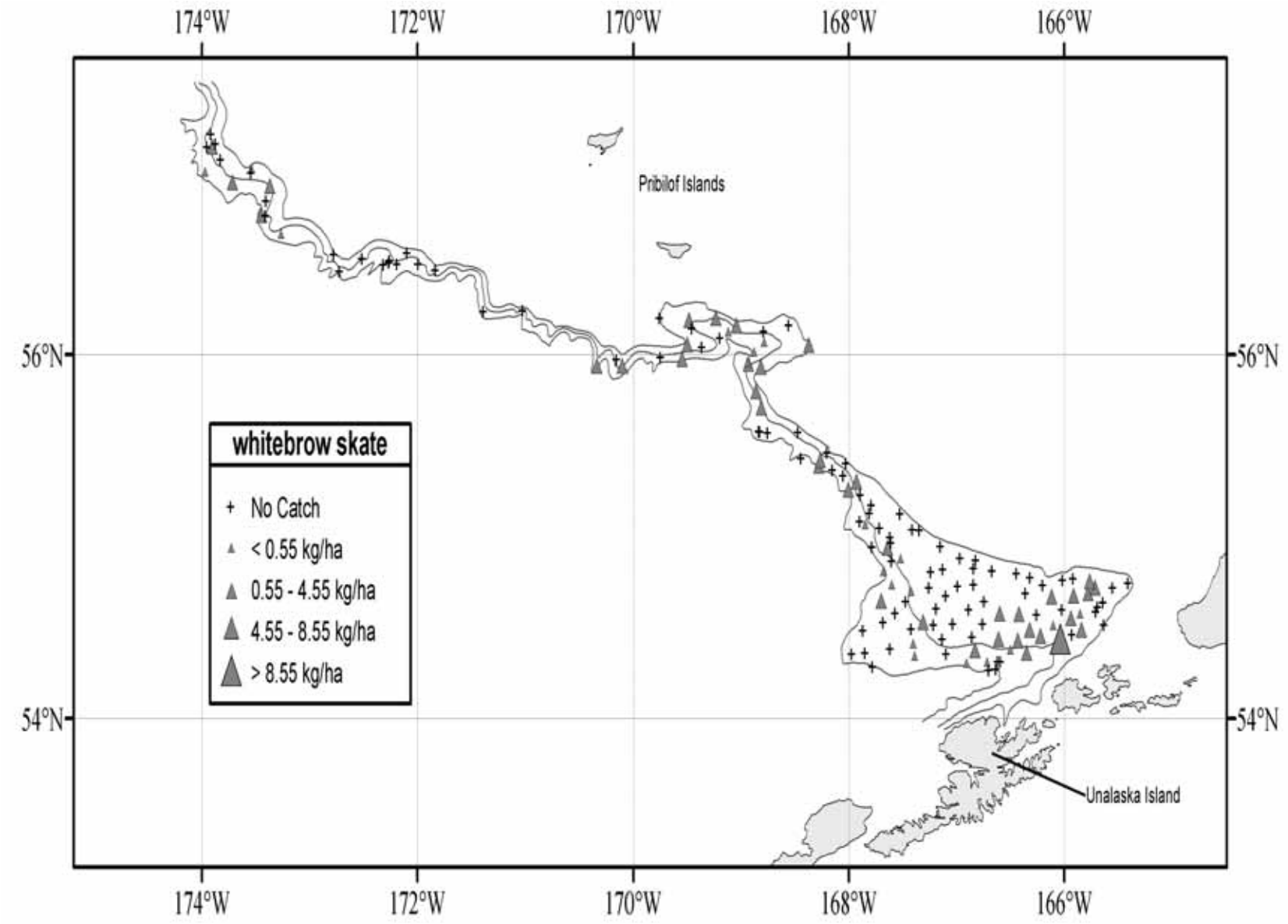

Figure 17. Continued.

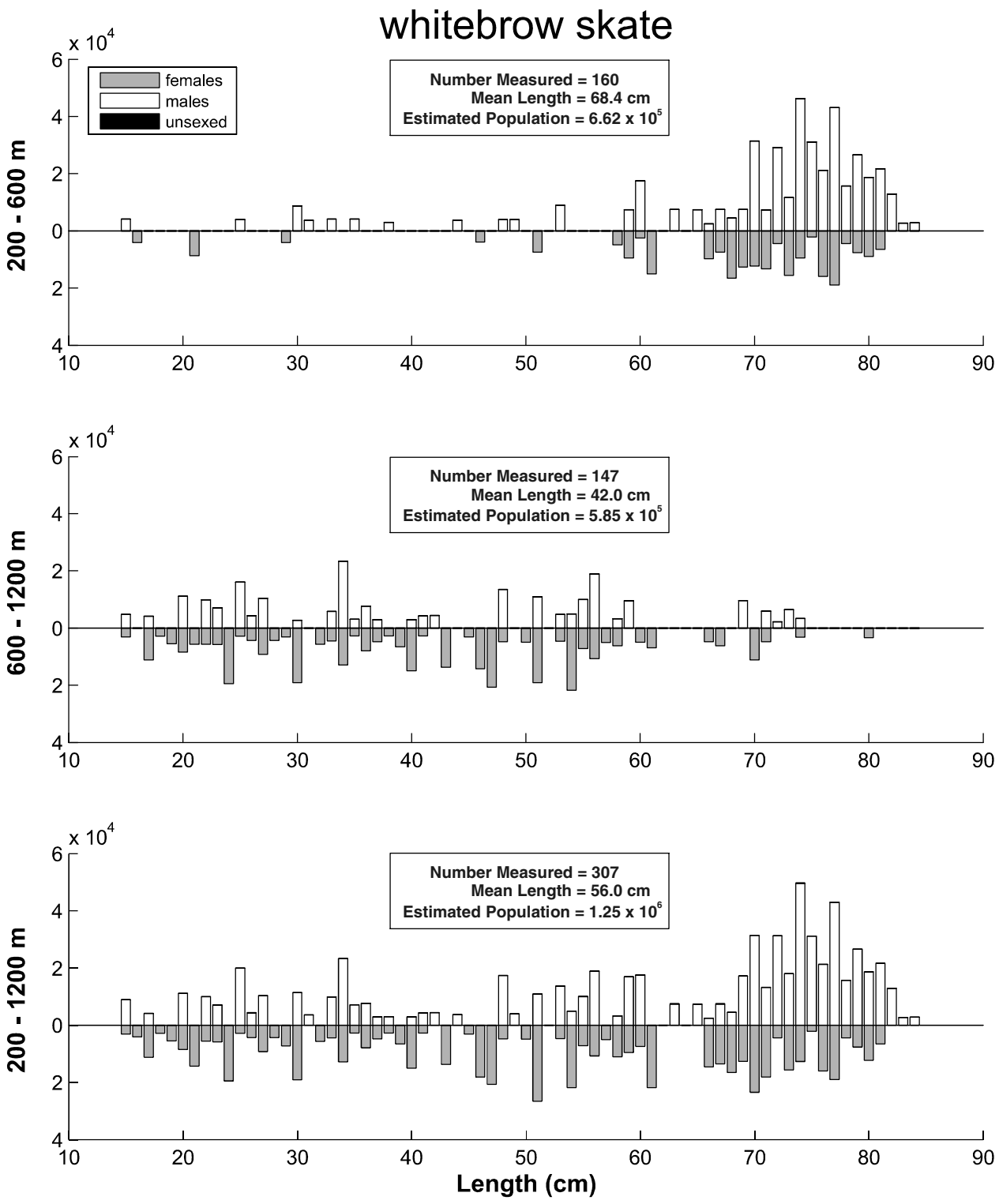

Figure 18. Size composition of the estimated whitebrow skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 17. Abundance estimates by subarea and depth strata for roughtail skate (*Bathyraja trachura*) from the 2004 BSS survey.

Bathyraja trachura **roughtail skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	7.83E+01	2.50E+04	1.95E+03	1.72E+08	4.50E-01	1.44E-01
	800-1,000	2.95E+02	9.54E+04	1.28E+04	1.78E+09	2.18E+00	7.04E-01
	1,000-1,200	2.74E+02	1.86E+05	4.12E+03	2.92E+09	2.47E+00	1.68E+00
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	7.26E+01	2.71E+04	5.27E+03	7.36E+08	1.31E+00	4.91E-01
	1,000-1,200	9.99E+01	3.73E+04	5.90E+03	7.67E+08	1.87E+00	6.96E-01
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	4.54E+01	1.15E+04	9.70E+02	6.00E+07	4.98E-01	1.27E-01
	800-1,000	6.40E+01	4.93E+04	1.08E+03	3.29E+08	8.74E-01	6.74E-01
	1,000-1,200	8.18E+01	1.06E+05	6.31E+01	1.48E+09	1.21E+00	1.57E+00
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	1.58E+01	4.62E+03	2.51E+02	2.13E+07	2.28E-01	6.65E-02
	800-1,000	1.24E+02	5.48E+04	2.02E+03	4.28E+08	1.75E+00	7.74E-01
	1,000-1,200	3.50E+01	1.50E+04	1.22E+03	2.24E+08	5.28E-01	2.26E-01
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	4.82E+01	1.70E+04	1.47E+03	1.85E+08	1.12E+00	3.93E-01
	800-1,000	1.48E+02	7.09E+04	7.94E+01	6.23E+08	2.68E+00	1.28E+00
	1,000-1,200	5.18E+01	2.97E+04	2.54E+03	2.33E+08	9.09E-01	5.20E-01
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	2.87E+01	9.79E+03	3.10E+02	3.60E+07	3.13E-01	1.07E-01
	800-1,000	8.88E+01	4.82E+04	2.23E+03	1.06E+09	1.38E+00	7.47E-01
	1,000-1,200	1.26E+02	1.08E+05	7.20E+00	3.96E+07	2.54E+00	2.18E+00
All Areas and Depths Combined		**1.68E+03**	**8.96E+05**	**4.23E+04**	**1.11E+10**	**4.57E-01**	**2.32E-01**

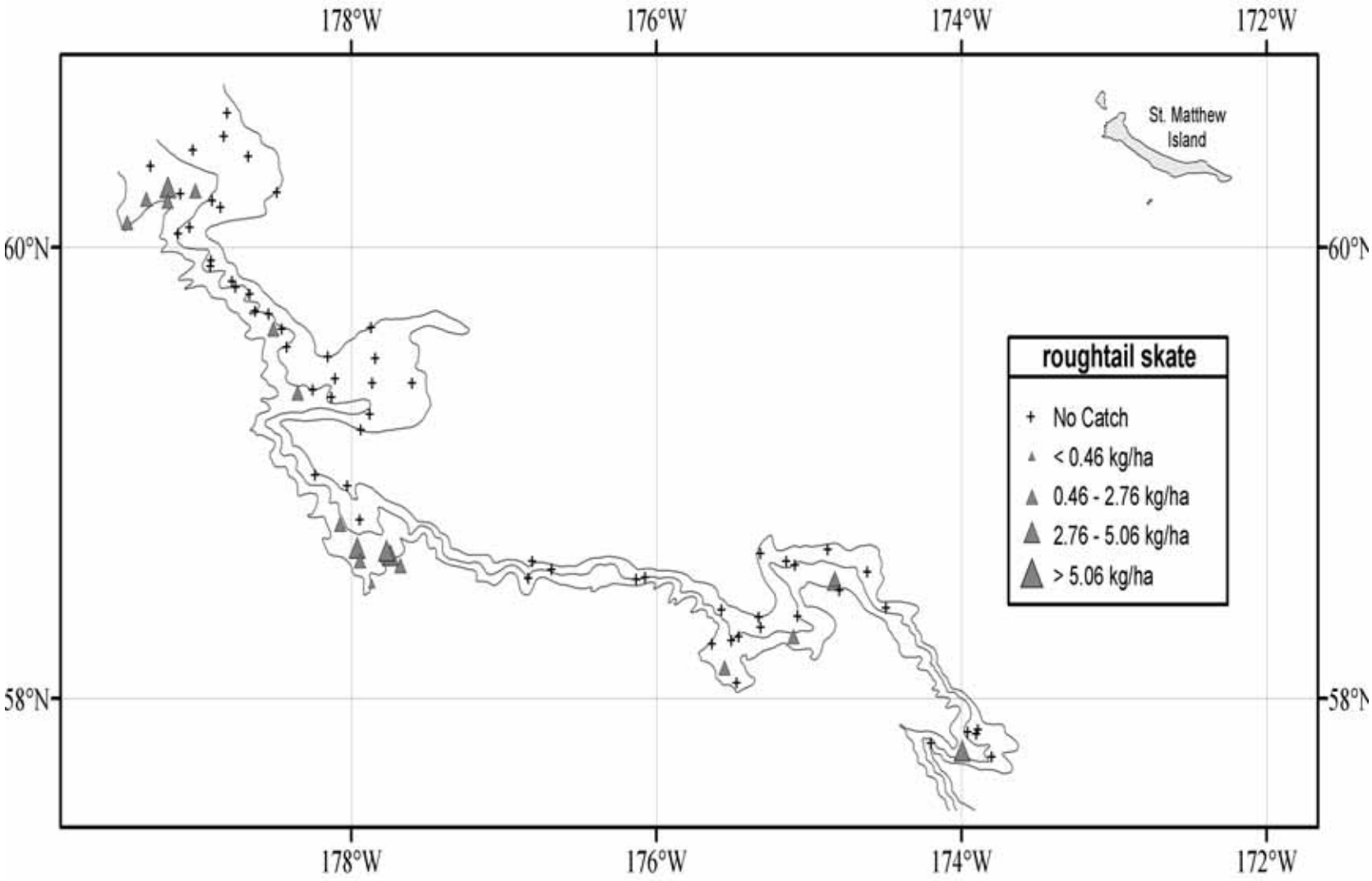

Figure 19. Distribution and relative abundance of roughtail skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

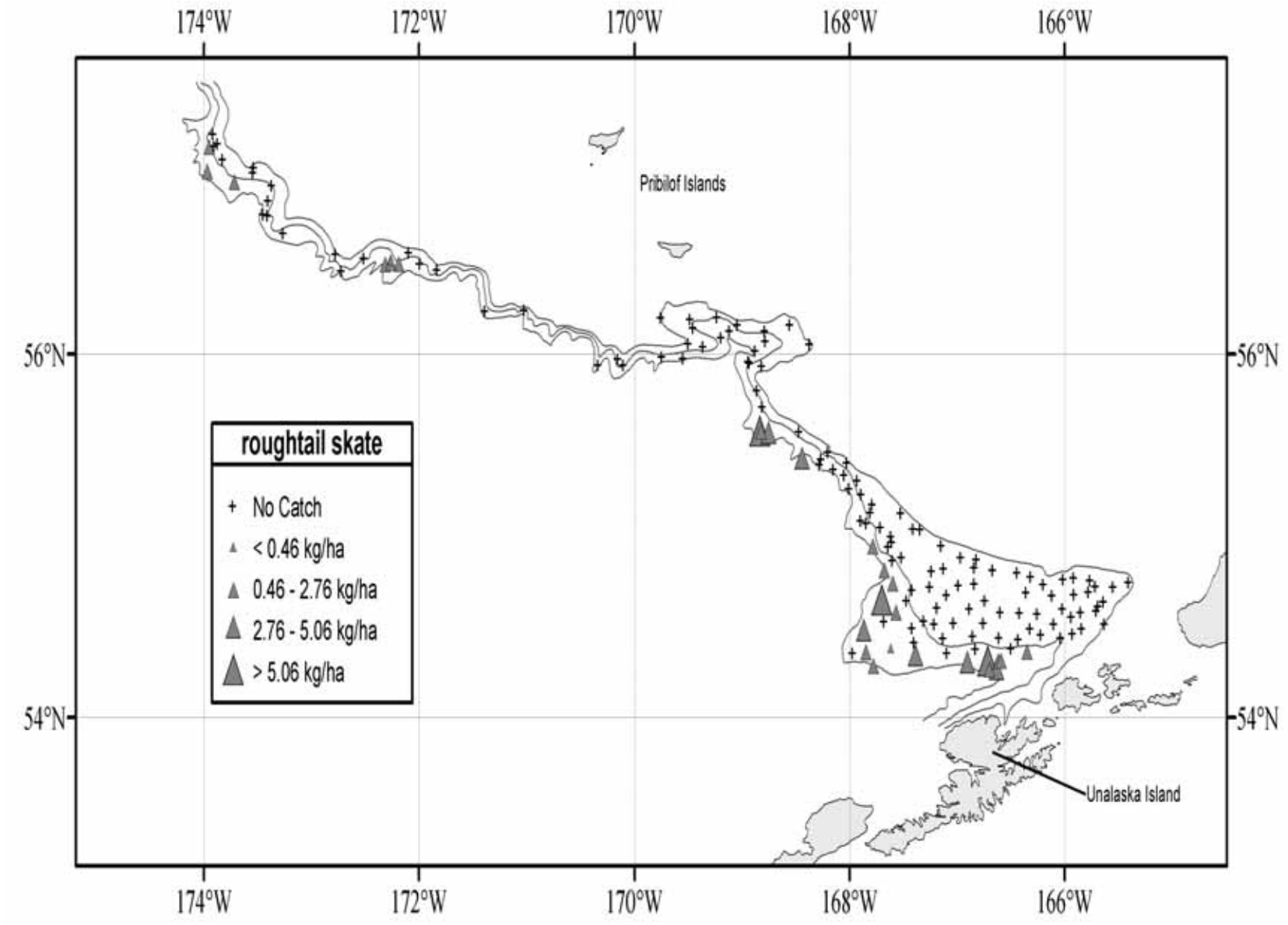

Figure 19. Continued.

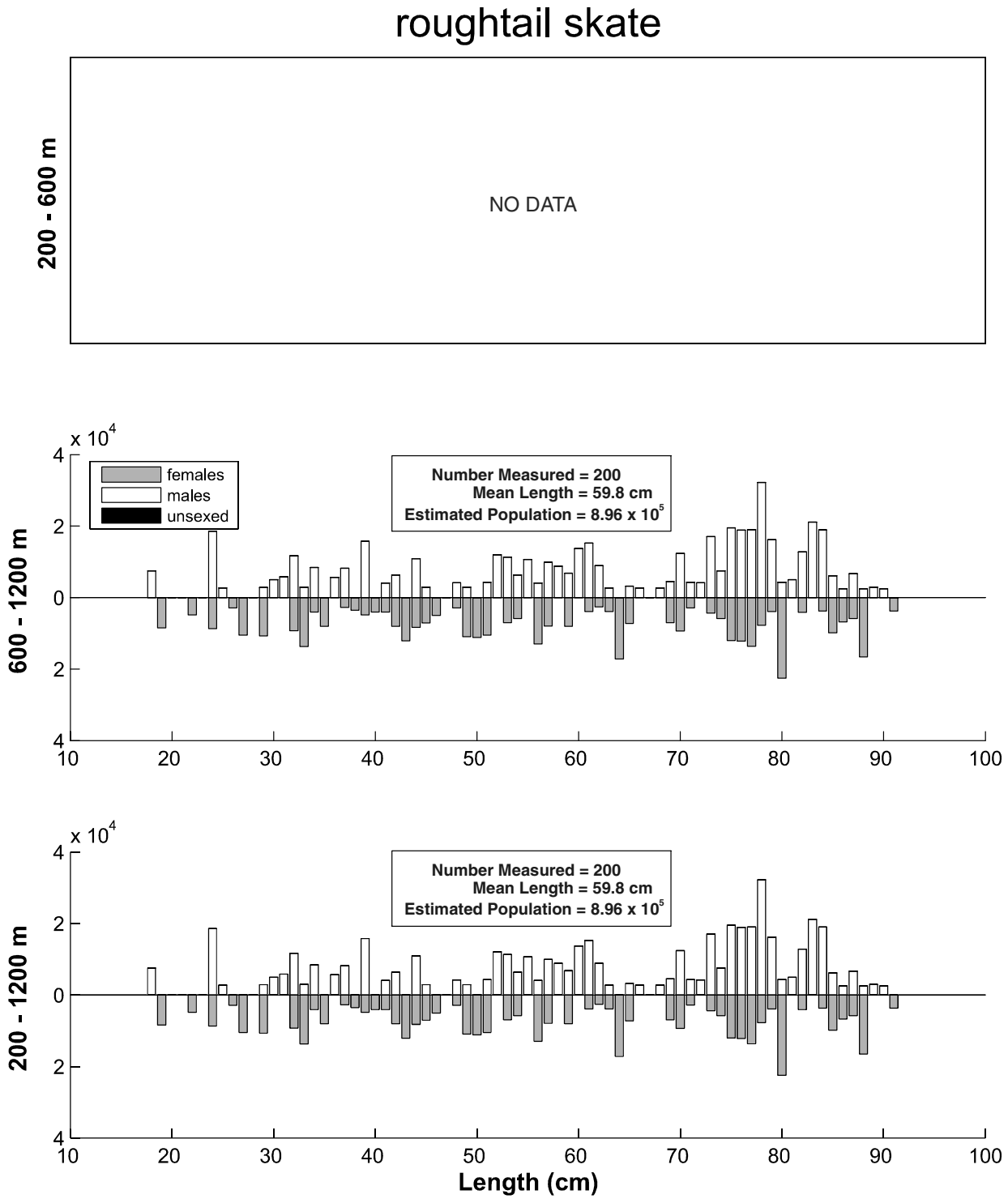

Figure 20. Size composition of the estimated roughtail skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 18. Abundance estimates by subarea and depth strata for mud skate (*Bathyraja taranetzi*) from the 2004 BSS survey.

Bathyraja taranetzi **mud skate**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.16E+02	7.26E+04	5.18E+03	2.10E+09	2.88E-01	1.81E-01
	400-600	3.70E+00	1.11E+04	1.37E+01	1.23E+08	9.11E-03	2.73E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	9.34E+00	2.37E+04	8.72E+01	5.60E+08	6.89E-02	1.75E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.42E+02	1.52E+05	4.62E+03	7.58E+09	1.23E+00	1.32E+00
	400-600	4.15E+01	6.91E+04	5.30E+02	1.96E+09	5.88E-01	9.80E-01
	600-800	1.45E+01	4.97E+04	5.37E+01	8.46E+08	2.46E-01	8.40E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	6.95E+01	5.14E+04	1.11E+03	5.93E+08	7.69E-01	5.69E-01
	400-600	9.10E+00	8.31E+03	3.82E+01	2.76E+07	1.03E-01	9.38E-02
	600-800	4.21E-01	9.35E+03	1.77E-01	8.75E+07	4.62E-03	1.03E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	1.55E+02	1.73E+05	4.28E+03	7.36E+09	1.25E+00	1.40E+00
	400-600	4.79E+00	2.07E+04	2.29E+01	4.30E+08	6.55E-02	2.84E-01
	600-800	1.81E+00	2.68E+04	1.32E+00	2.86E+08	2.62E-02	3.87E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	8.57E+00	8.57E+03	7.34E+01	7.34E+07	2.02E-01	2.02E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	5.33E+01	6.02E+04	1.38E+03	2.00E+09	2.05E-01	2.32E-01
	400-600	7.24E+01	9.22E+04	2.19E+03	2.52E+09	4.25E-01	5.41E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**7.02E+02**	**8.29E+05**	**1.96E+04**	**2.65E+10**	**2.27E-01**	**2.63E-01**

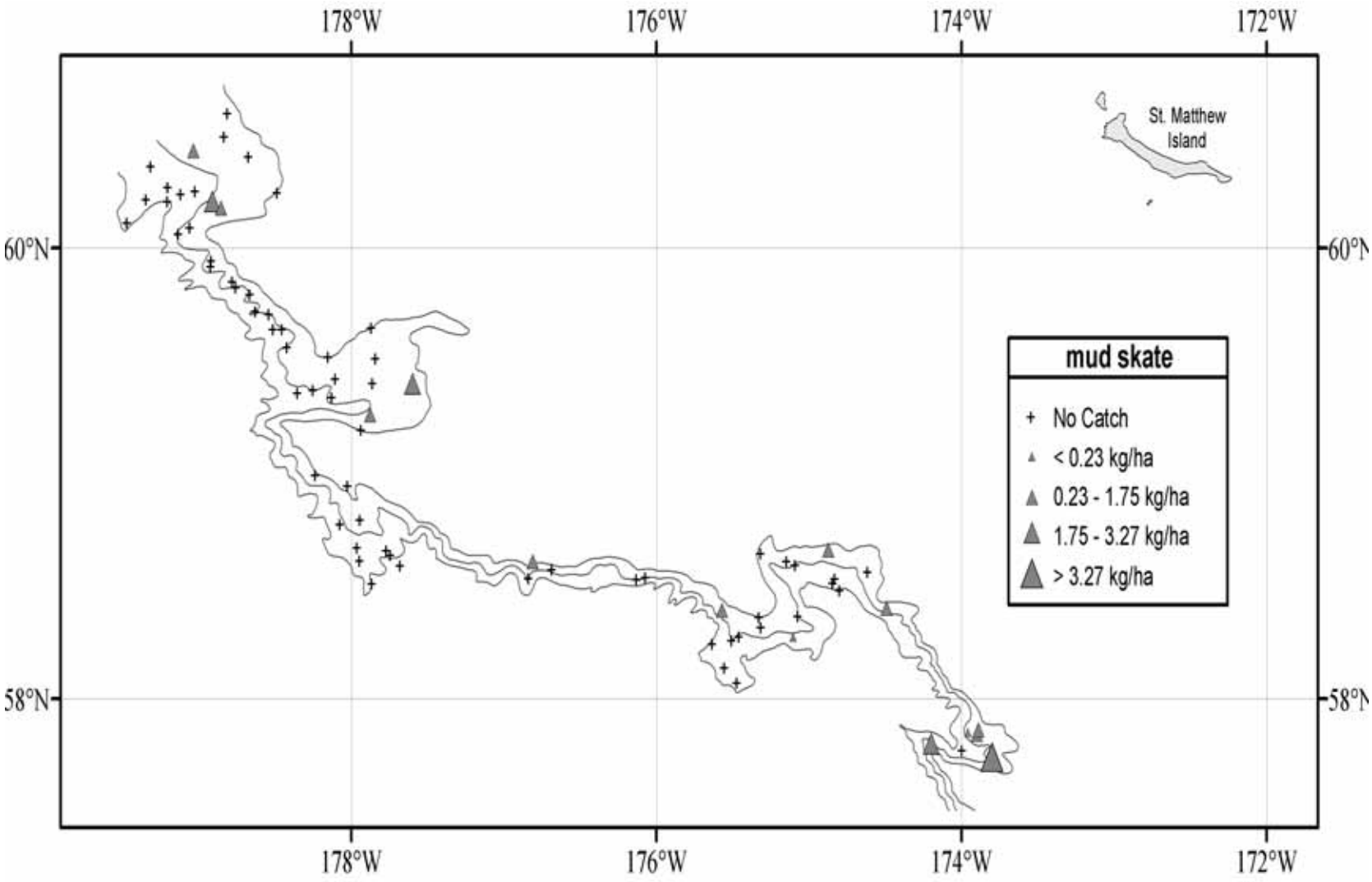

Figure 21. Distribution and relative abundance of mud skate from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

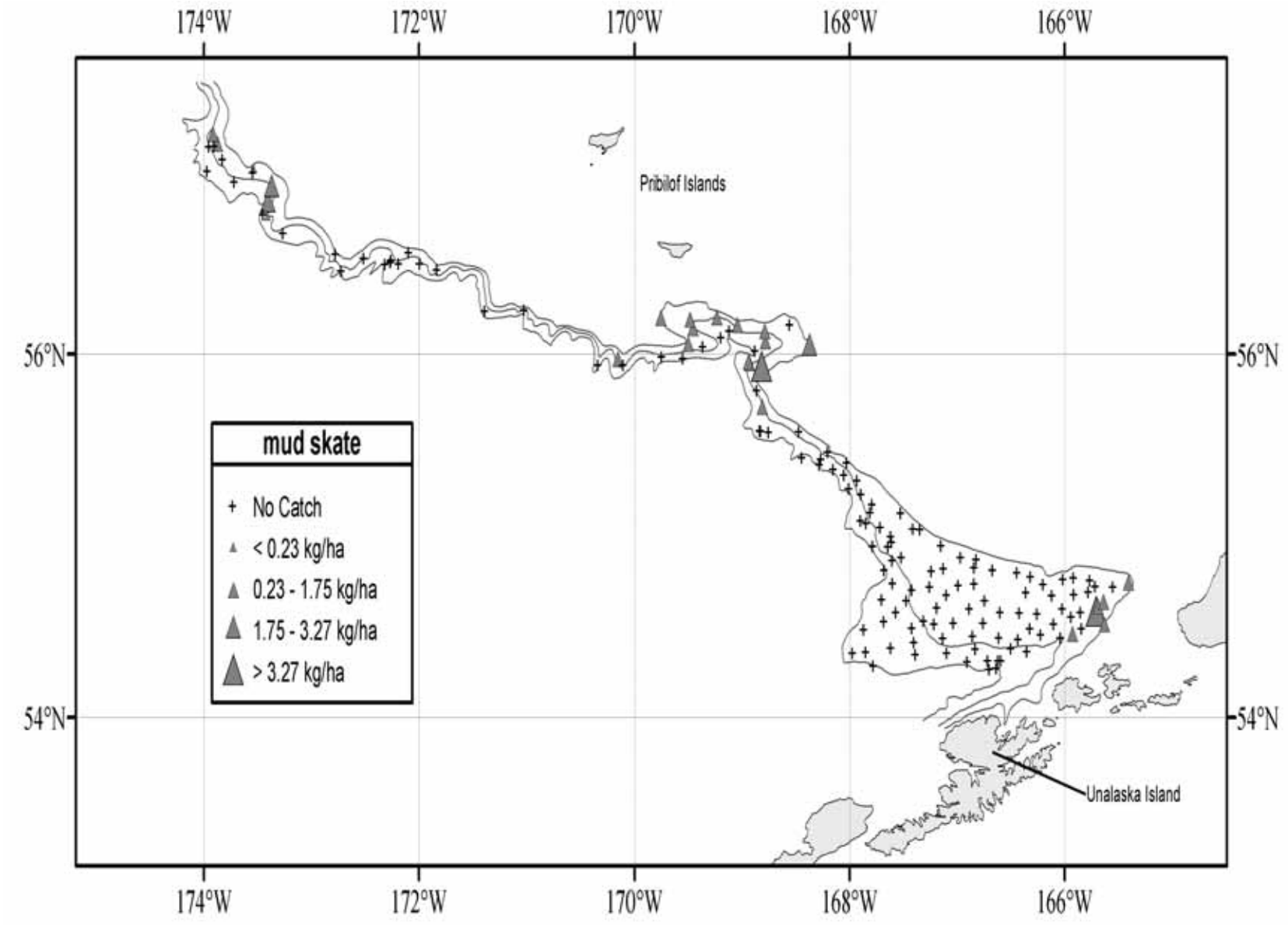

Figure 21. Continued.

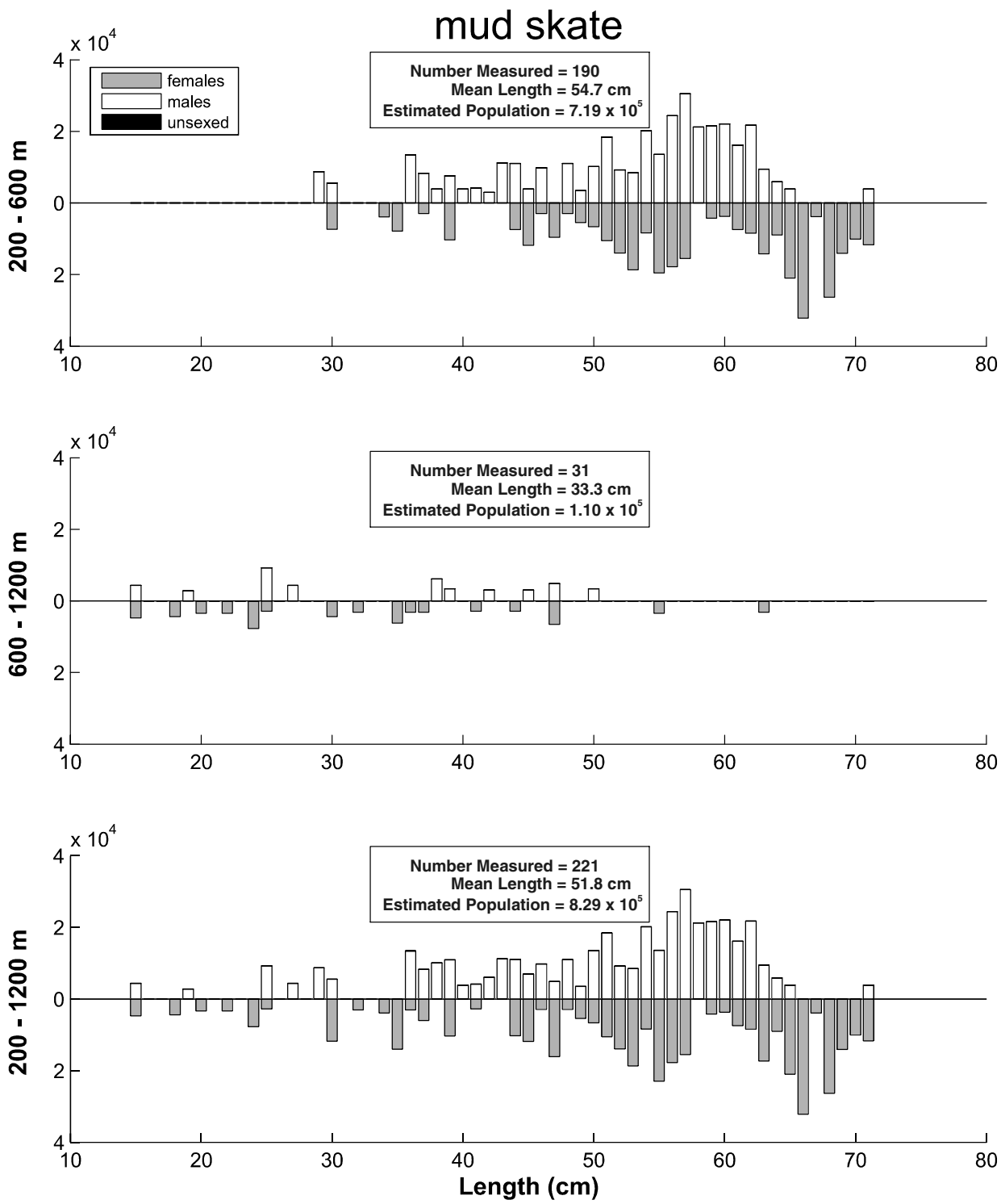

Figure 22. Size composition of the estimated mud skate population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 19. Abundance estimates by subarea and depth strata for giant grenadier (*Albatrossia pectoralis*) from the 2004 BSS survey.

Albatrossia pectoralis **giant grenadier**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.49E+04	5.50E+06	9.95E+06	1.95E+12	3.66E+01	1.35E+01
	600-800	1.73E+04	7.25E+06	1.40E+07	3.21E+12	9.95E+01	4.16E+01
	800-1,000	1.69E+04	5.40E+06	2.52E+07	8.33E+11	1.25E+02	3.99E+01
	1,000-1,200	1.95E+04	5.91E+06	5.44E+07	8.57E+11	1.77E+02	5.34E+01
2	200-400	3.18E+01	3.10E+03	1.01E+03	9.64E+06	2.74E-01	2.68E-02
	400-600	2.59E+03	4.59E+05	1.43E+06	5.24E+10	3.68E+01	6.52E+00
	600-800	6.46E+03	2.22E+06	5.69E+06	1.18E+12	1.09E+02	3.76E+01
	800-1,000	8.24E+03	2.12E+06	1.49E+07	2.97E+11	1.49E+02	3.84E+01
	1,000-1,200	4.73E+03	1.29E+06	1.48E+06	4.76E+11	8.83E+01	1.91E+01
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.65E+04	4.94E+06	2.34E+07	2.76E+12	1.86E+02	5.58E+01
	600-800	3.78E+04	1.01E+07	7.98E+07	2.88E+12	4.15E+02	1.11E+02
	800-1,000	4.12E+04	1.01E+07	1.97E+08	7.95E+12	5.62E+02	1.38E+02
	1,000-1,200	1.91E+04	5.89E+06	1.80E+07	2.03E+12	2.82E+02	8.72E+01
4	200-400	1.46E+03	1.95E+05	1.36E+06	2.26E+10	1.18E+01	1.58E+00
	400-600	4.15E+04	8.62E+06	1.66E+08	6.68E+12	5.68E+02	1.18E+02
	600-800	3.70E+04	8.54E+06	1.72E+08	6.85E+12	5.34E+02	1.23E+02
	800-1,000	2.94E+04	7.85E+06	9.76E+06	1.48E+12	4.15E+02	1.11E+02
	1,000-1,200	3.15E+04	6.16E+06	1.85E+08	3.08E+12	4.76E+02	9.30E+01
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.76E+04	6.86E+06	9.85E+07	1.07E+13	6.48E+02	1.61E+02
	600-800	3.96E+04	9.13E+06	1.34E+08	7.00E+12	9.18E+02	2.12E+02
	800-1,000	1.58E+04	5.36E+06	1.54E+07	2.04E+12	2.87E+02	9.70E+01
	1,000-1,200	1.50E+04	5.02E+06	3.82E+04	4.59E+09	2.64E+02	8.81E+01
6	200-400	1.03E+02	9.24E+03	1.06E+04	8.53E+07	3.98E-01	3.56E-02
	400-600	1.11E+05	2.65E+07	2.59E+09	1.69E+14	6.48E+02	1.40E+02
	600-800	5.93E+04	1.89E+07	9.09E+08	9.96E+13	6.46E+02	2.06E+02
	800-1,000	3.32E+04	1.26E+07	9.71E+07	2.34E+13	5.14E+02	1.96E+02
	1,000-1,200	1.92E+04	6.96E+06	1.01E+06	1.05E+09	3.86E+02	1.40E+02
All Areas and Depths Combined		**6.67E+05**	**1.84E+08**	**4.83E+09**	**3.54E+14**	**1.80E+02**	**4.96E+01**

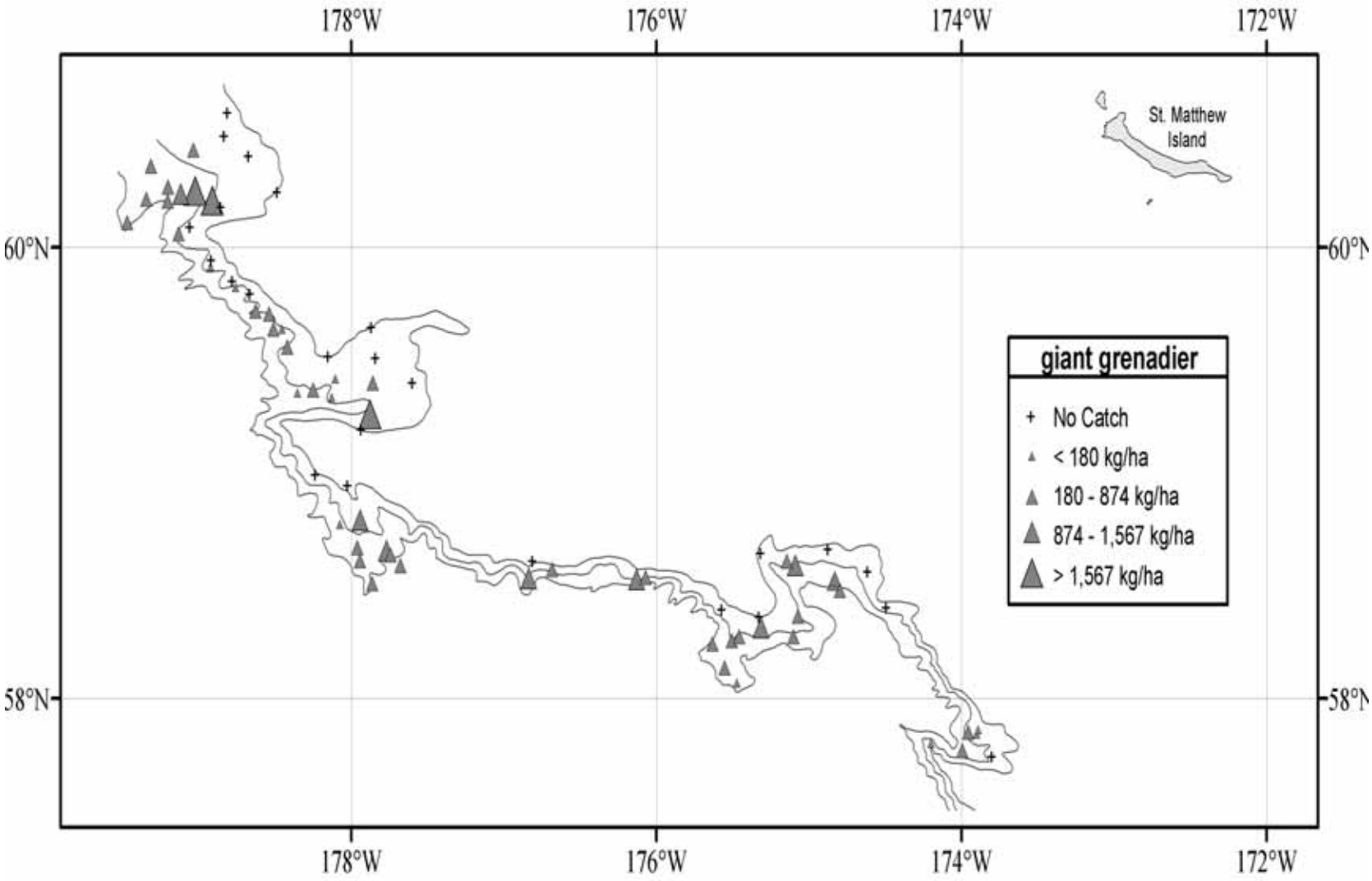

Figure 23. Distribution and relative abundance of giant grenadier from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

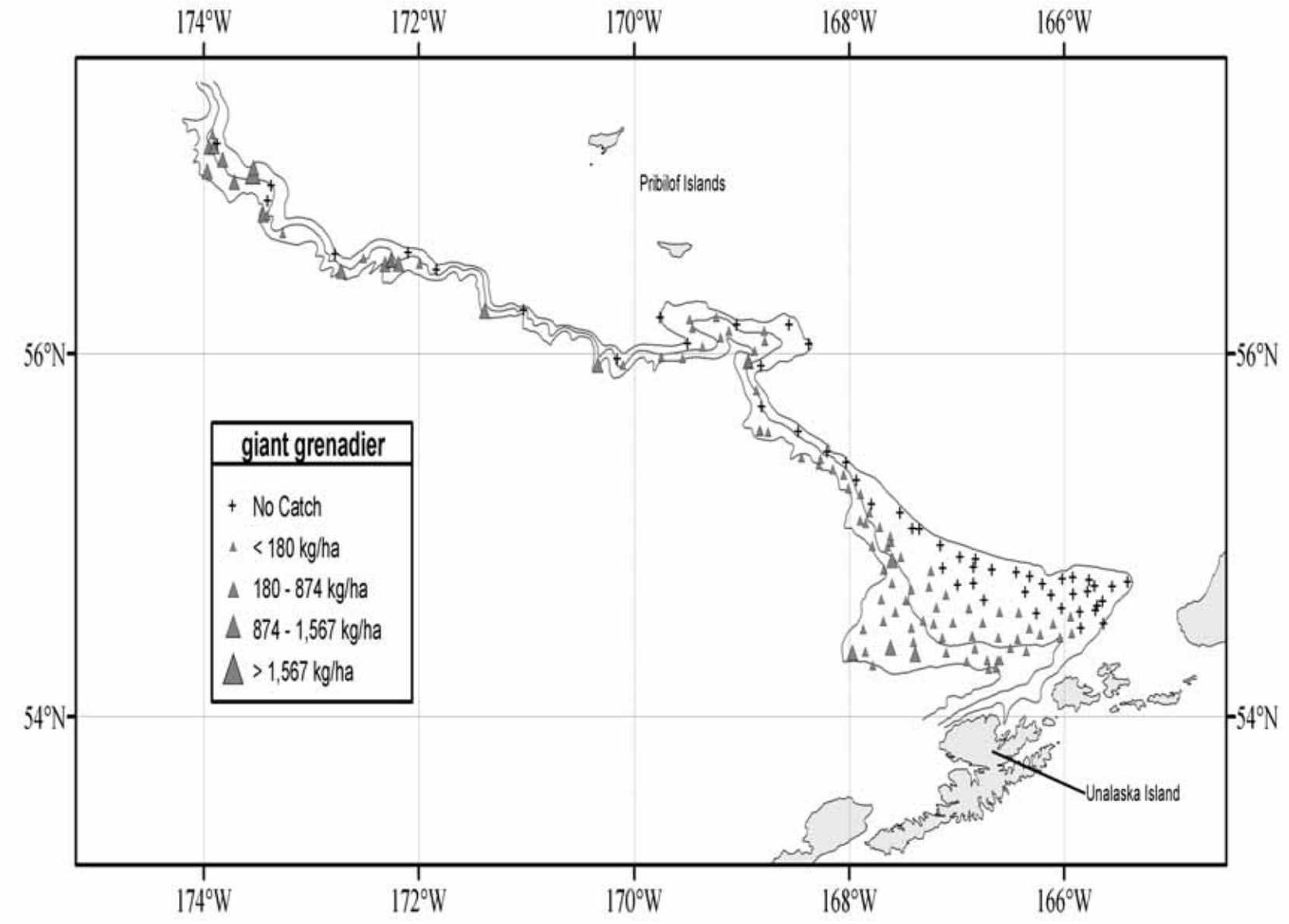

Figure 23. Continued.

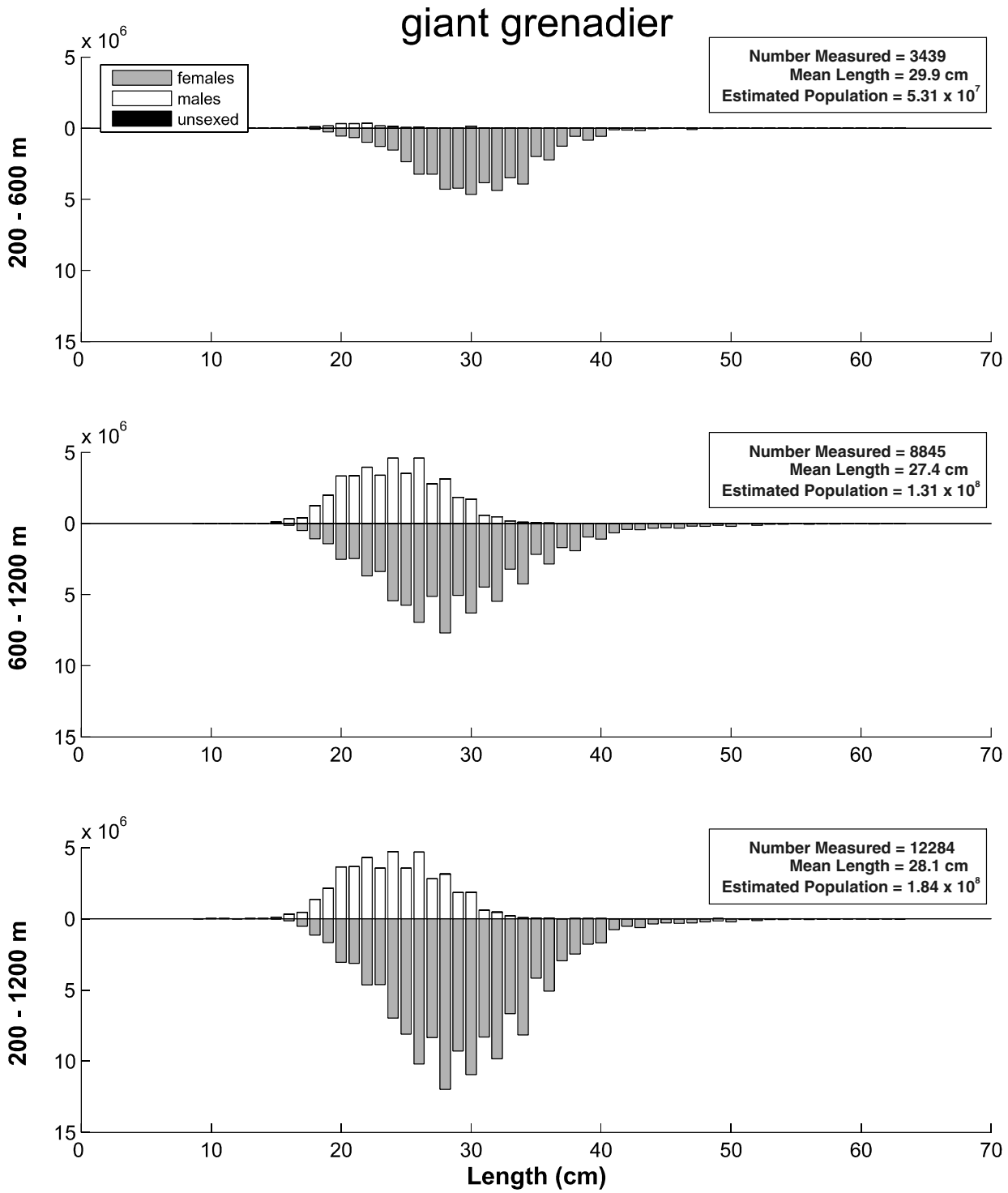

Figure 24. Size composition of the estimated giant grenadier population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 20. Abundance estimates by subarea and depth strata for Pacific grenadier (*Coryphaenoides acrolepis*) from the 2004 BSS survey.

Coryphaenoides acrolepis **Pacific grenadier**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	1.16E+01	1.16E+04	6.13E+01	3.21E+07	8.56E-02	8.54E-02
	1,000-1,200	1.50E+02	4.29E+05	8.26E+03	4.12E+10	1.36E+00	3.87E+00
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	1.10E+03	1.04E+06	3.98E+05	4.00E+11	2.06E+01	1.95E+01
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	3.05E-02	7.63E+03	9.31E-04	5.82E+07	3.35E-04	8.38E-02
	800-1,000	2.73E+02	1.27E+06	1.73E+04	2.03E+11	3.73E+00	1.74E+01
	1,000-1,200	5.95E+02	2.16E+06	3.03E+04	2.55E+11	8.81E+00	3.19E+01
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	8.16E+01	5.99E+05	4.12E+03	1.30E+11	1.15E+00	8.46E+00
	1,000-1,200	8.40E+02	4.92E+06	1.55E+05	7.09E+12	1.27E+01	7.42E+01
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	4.46E+01	5.20E+05	6.62E+02	5.27E+10	1.03E+00	1.20E+01
	800-1,000	1.67E+02	1.38E+06	4.84E+03	2.97E+11	3.03E+00	2.50E+01
	1,000-1,200	5.71E+02	3.94E+06	1.35E+04	2.70E+10	1.00E+01	6.91E+01
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	3.09E+00	5.78E+04	4.50E+00	5.57E+08	3.37E-02	6.30E-01
	800-1,000	2.89E+01	2.33E+05	2.29E+02	1.97E+10	4.48E-01	3.61E+00
	1,000-1,200	1.69E+02	1.01E+06	1.13E+02	4.88E+10	3.40E+00	2.04E+01
All Areas and Depths Combined		**4.04E+03**	**1.76E+07**	**6.32E+05**	**8.57E+12**	**1.01E+00**	**3.67E+00**

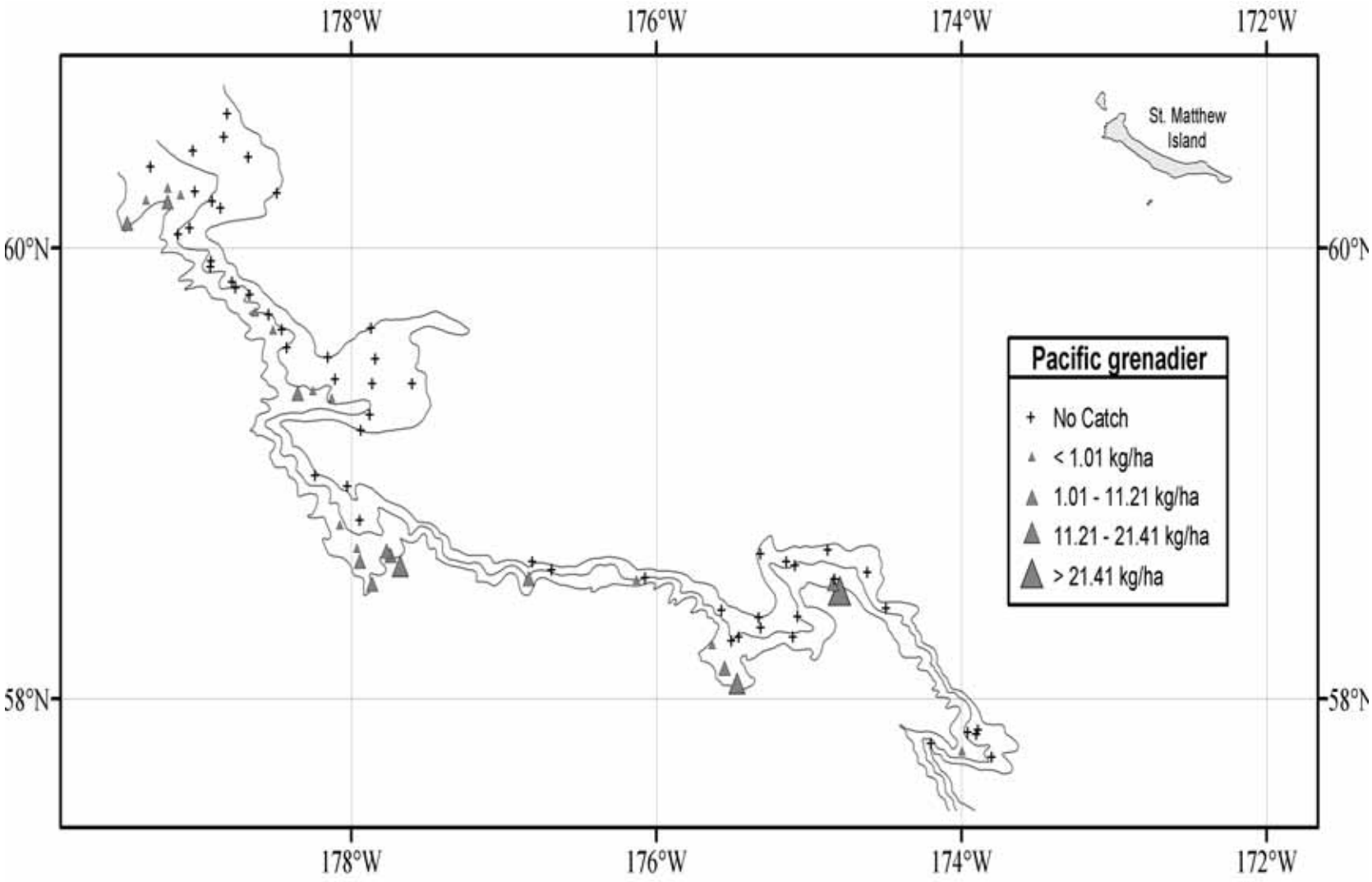

Figure 25. Distribution and relative abundance of Pacific grenadier from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

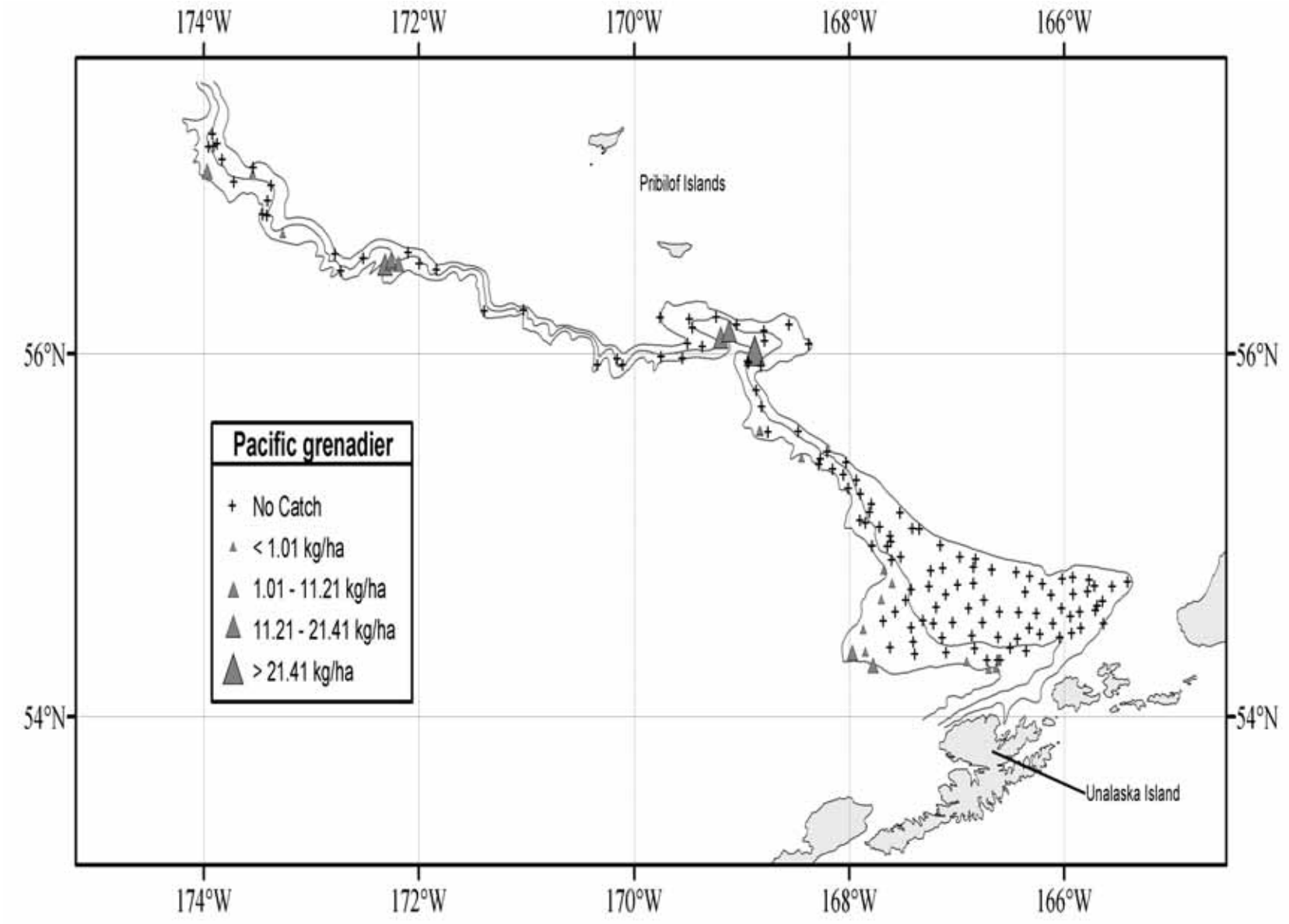

Figure 25. Continued.

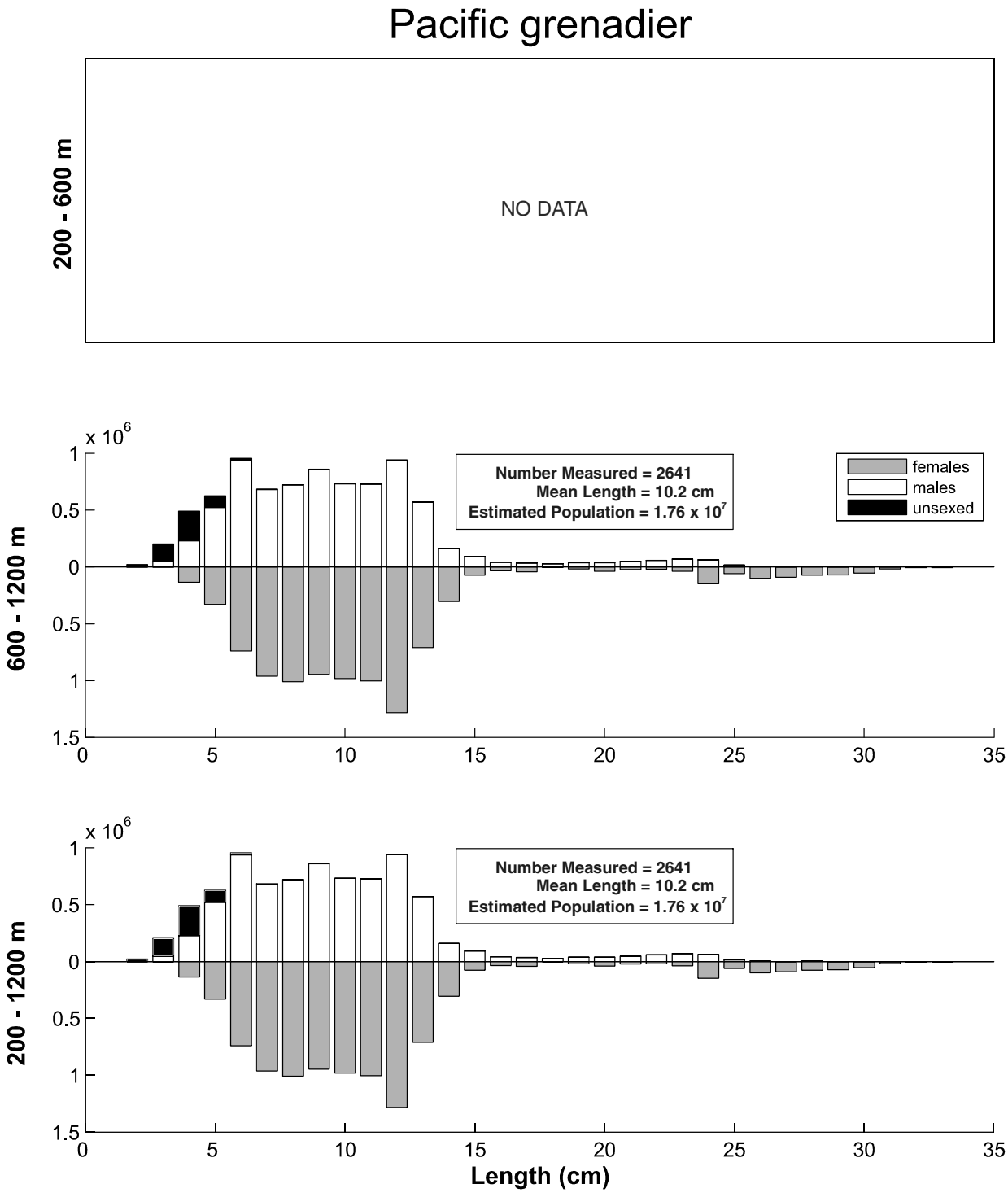

Figure 26. Size composition of the estimated Pacific grenadier population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 21. Abundance estimates by subarea and depth strata for popeye grenadier (*Coryphaenoides cinereus*) from the 2004 BSS survey.

Coryphaenoides cinereus **popeye grenadier**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	9.93E+01	3.41E+05	6.30E+03	7.12E+10	2.44E-01	8.40E-01
	600-800	1.76E+03	7.52E+06	3.84E+05	8.60E+12	1.01E+01	4.32E+01
	800-1,000	3.64E+03	1.68E+07	7.09E+05	1.04E+13	2.69E+01	1.24E+02
	1,000-1,200	5.51E+03	3.10E+07	2.31E+06	1.28E+14	4.98E+01	2.80E+02
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	3.99E+01	1.59E+05	1.59E+03	2.52E+10	5.66E-01	2.25E+00
	600-800	4.95E+02	2.44E+06	3.08E+04	8.74E+11	8.36E+00	4.13E+01
	800-1,000	1.06E+03	5.27E+06	5.77E+04	9.87E+11	1.91E+01	9.53E+01
	1,000-1,200	3.61E+03	2.06E+07	1.11E+06	1.87E+13	6.74E+01	3.07E+02
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.25E+03	7.41E+06	1.28E+06	4.73E+13	1.41E+01	8.36E+01
	600-800	4.78E+03	3.64E+07	1.37E+06	9.36E+13	5.25E+01	4.00E+02
	800-1,000	4.17E+03	2.81E+07	1.80E+06	8.64E+13	5.70E+01	3.84E+02
	1,000-1,200	2.30E+03	1.25E+07	2.08E+05	1.36E+13	3.40E+01	1.85E+02
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.05E+03	5.67E+06	4.77E+05	1.33E+13	1.43E+01	7.77E+01
	600-800	1.55E+03	9.18E+06	2.21E+05	8.72E+12	2.24E+01	1.32E+02
	800-1,000	2.24E+03	1.51E+07	4.76E+05	3.01E+13	3.17E+01	2.14E+02
	1,000-1,200	1.25E+03	7.25E+06	4.16E+04	2.21E+12	1.89E+01	1.09E+02
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	7.03E+01	4.58E+05	4.95E+03	2.09E+11	1.65E+00	1.07E+01
	600-800	1.05E+03	7.45E+06	3.81E+04	3.75E+12	2.44E+01	1.73E+02
	800-1,000	1.58E+03	1.07E+07	1.28E+05	4.55E+12	2.87E+01	1.95E+02
	1,000-1,200	8.35E+02	4.67E+06	5.03E+03	3.83E+11	1.47E+01	8.18E+01
6	200-400	7.94E-01	4.62E+03	6.31E-01	2.13E+07	3.06E-03	1.78E-02
	400-600	7.43E+02	5.58E+06	2.51E+05	1.35E+13	4.36E+00	3.27E+01
	600-800	3.12E+03	2.48E+07	1.18E+06	9.59E+13	3.40E+01	2.70E+02
	800-1,000	1.59E+03	1.62E+07	6.36E+04	3.71E+13	2.46E+01	2.51E+02
	1,000-1,200	5.54E+02	3.12E+06	7.42E+03	4.77E+11	1.12E+01	6.28E+01
All Areas and Depths Combined		**4.44E+04**	**2.79E+08**	**1.22E+07**	**6.19E+14**	**1.24E+01**	**7.66E+01**

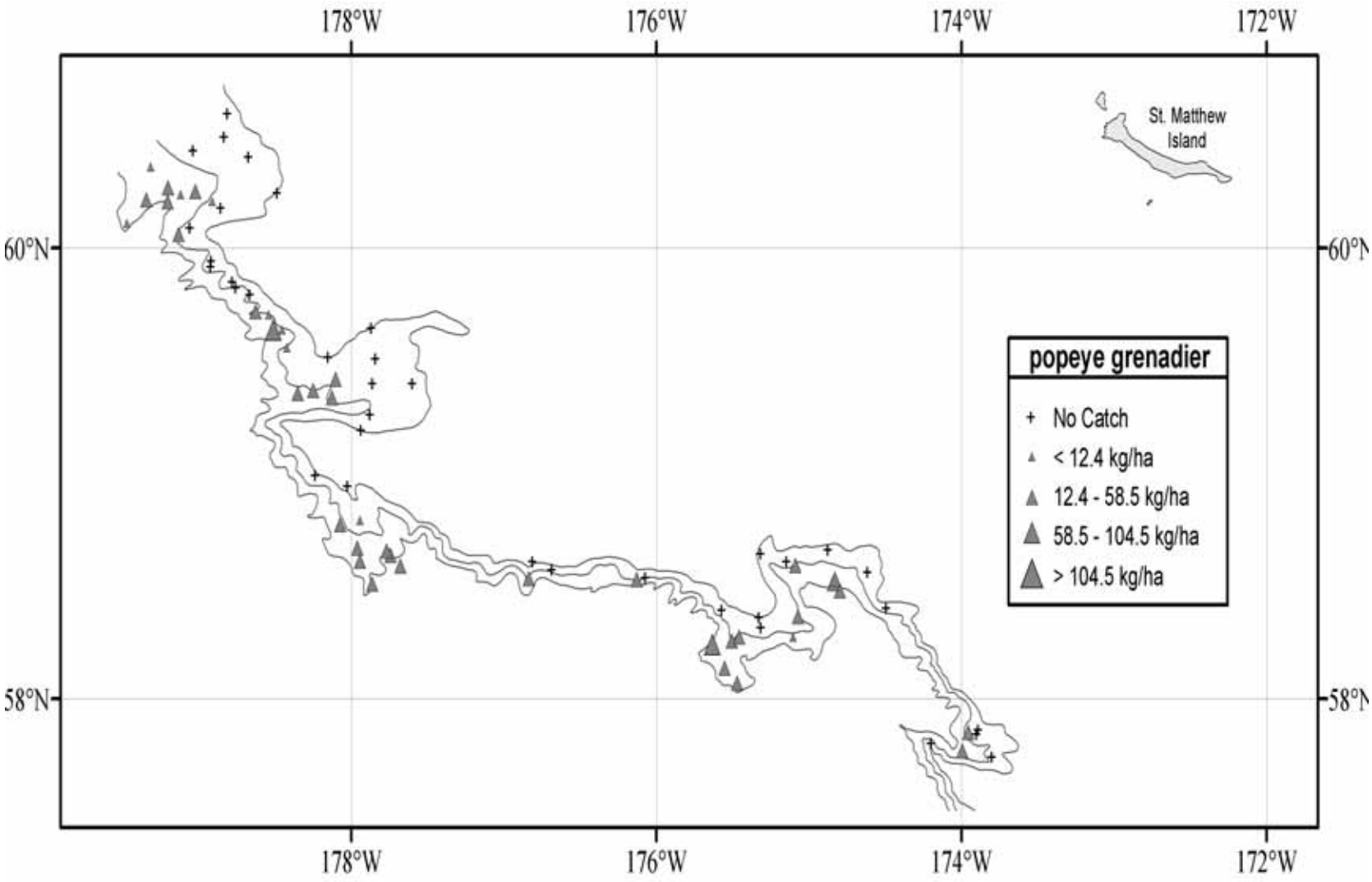

Figure 27. Distribution and relative abundance of popeye grenadier from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

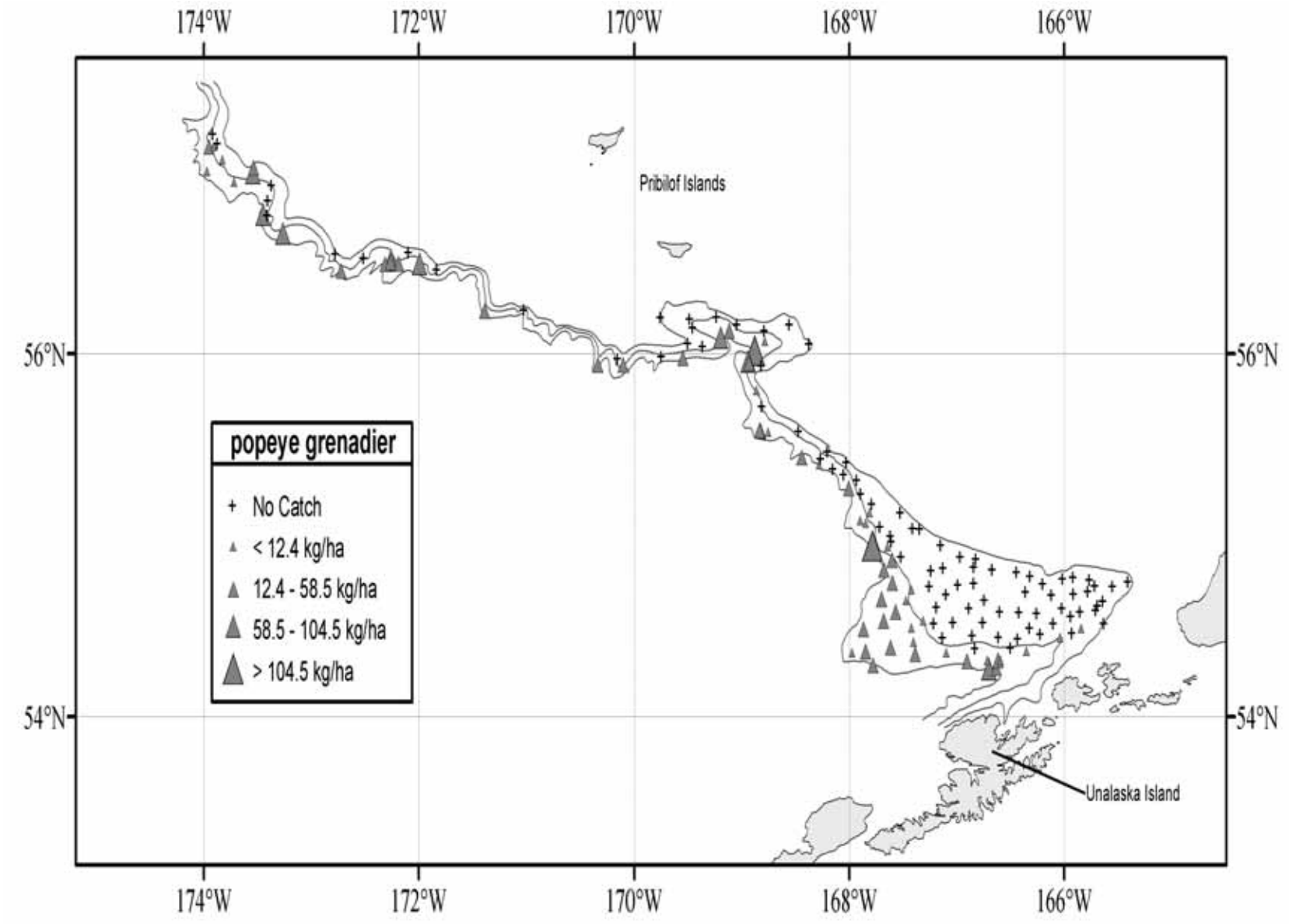

Figure 27. Continued.

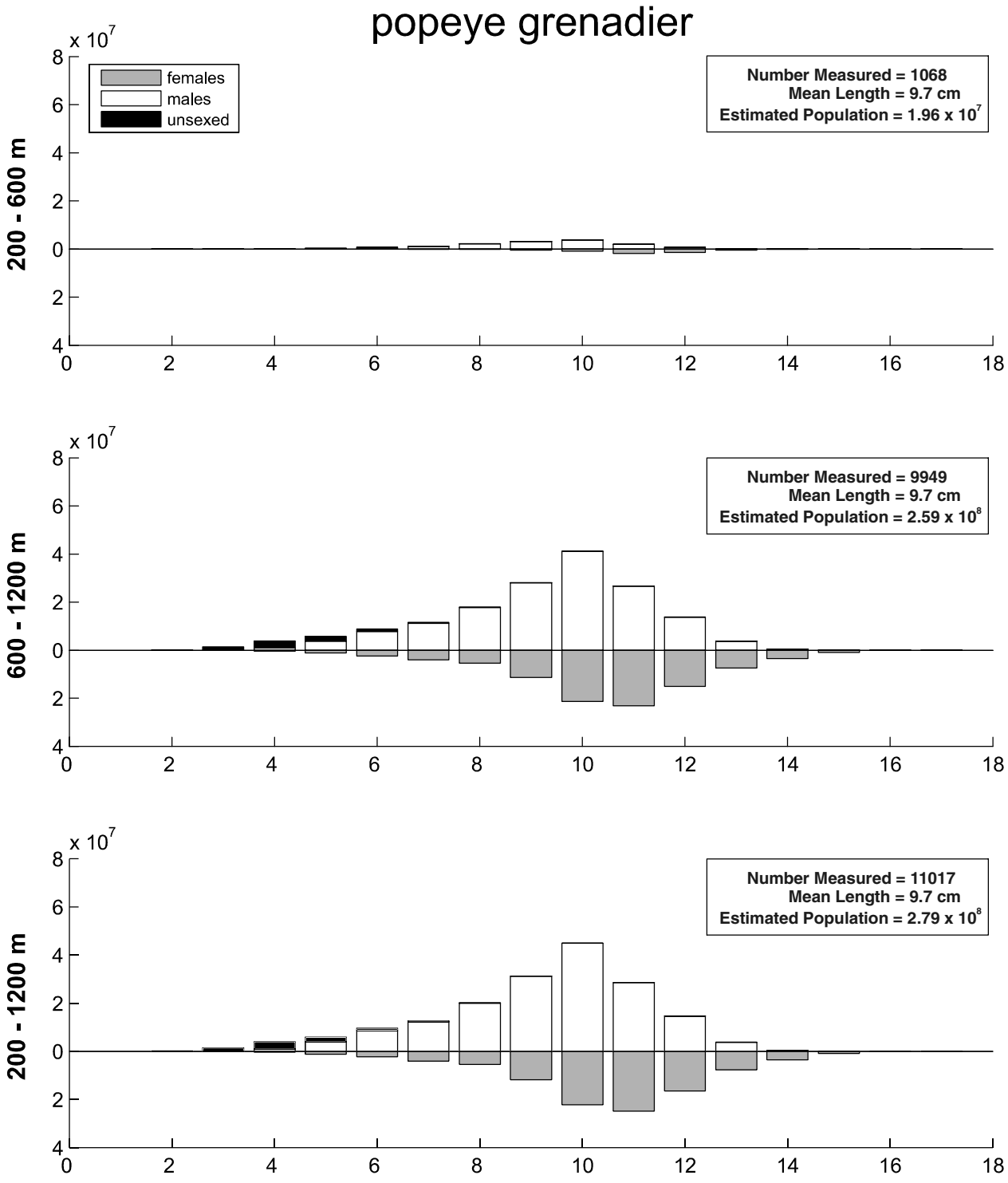

Figure 28. Size composition of the estimated popeye grenadier population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 22. Abundance estimates by subarea and depth strata for walleye pollock (*Theragra chalcogramma*) from the 2004 BSS survey.

Theragra chalcogramma **walleye pollock**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	2.56E+04	2.17E+07	4.86E+07	3.72E+13	6.38E+01	5.40E+01
	400-600	1.32E+03	1.12E+06	3.31E+05	2.60E+11	3.24E+00	2.75E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	5.92E+00	3.90E+03	3.51E+01	1.52E+07	4.37E-02	2.88E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.53E+03	1.05E+06	4.38E+05	1.95E+11	1.32E+01	9.06E+00
	400-600	5.59E+00	1.06E+04	1.18E+01	4.70E+07	7.93E-02	1.50E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	1.34E+03	8.69E+05	1.53E+05	5.66E+10	1.48E+01	9.61E+00
	400-600	2.72E+01	2.99E+04	1.85E+02	2.45E+08	3.08E-01	3.37E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	3.32E+00	4.84E+03	1.10E+01	2.34E+07	4.53E-02	6.61E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	1.02E+03	8.14E+05	1.96E+05	1.33E+11	8.27E+00	6.59E+00
	400-600	3.26E+01	3.39E+04	5.65E+02	6.01E+08	4.46E-01	4.65E-01
	600-800	2.73E+01	3.30E+04	4.49E+02	7.55E+08	3.93E-01	4.76E-01
	800-1,000	3.21E+00	4.46E+03	1.03E+01	1.98E+07	4.53E-02	6.30E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	2.00E+04	2.52E+07	3.43E+08	5.52E+14	4.72E+02	5.95E+02
	400-600	4.34E+00	9.68E+03	1.88E+01	9.37E+07	1.02E-01	2.27E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	8.72E+00	5.01E+03	7.61E+01	2.51E+07	1.58E-01	9.08E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.15E+04	1.03E+07	2.84E+07	2.33E+13	4.42E+01	3.97E+01
	400-600	5.55E+01	4.25E+04	1.95E+03	9.49E+08	3.26E-01	2.49E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**6.25E+04**	**6.12E+07**	**4.21E+08**	**6.13E+14**	**2.00E+01**	**1.95E+01**

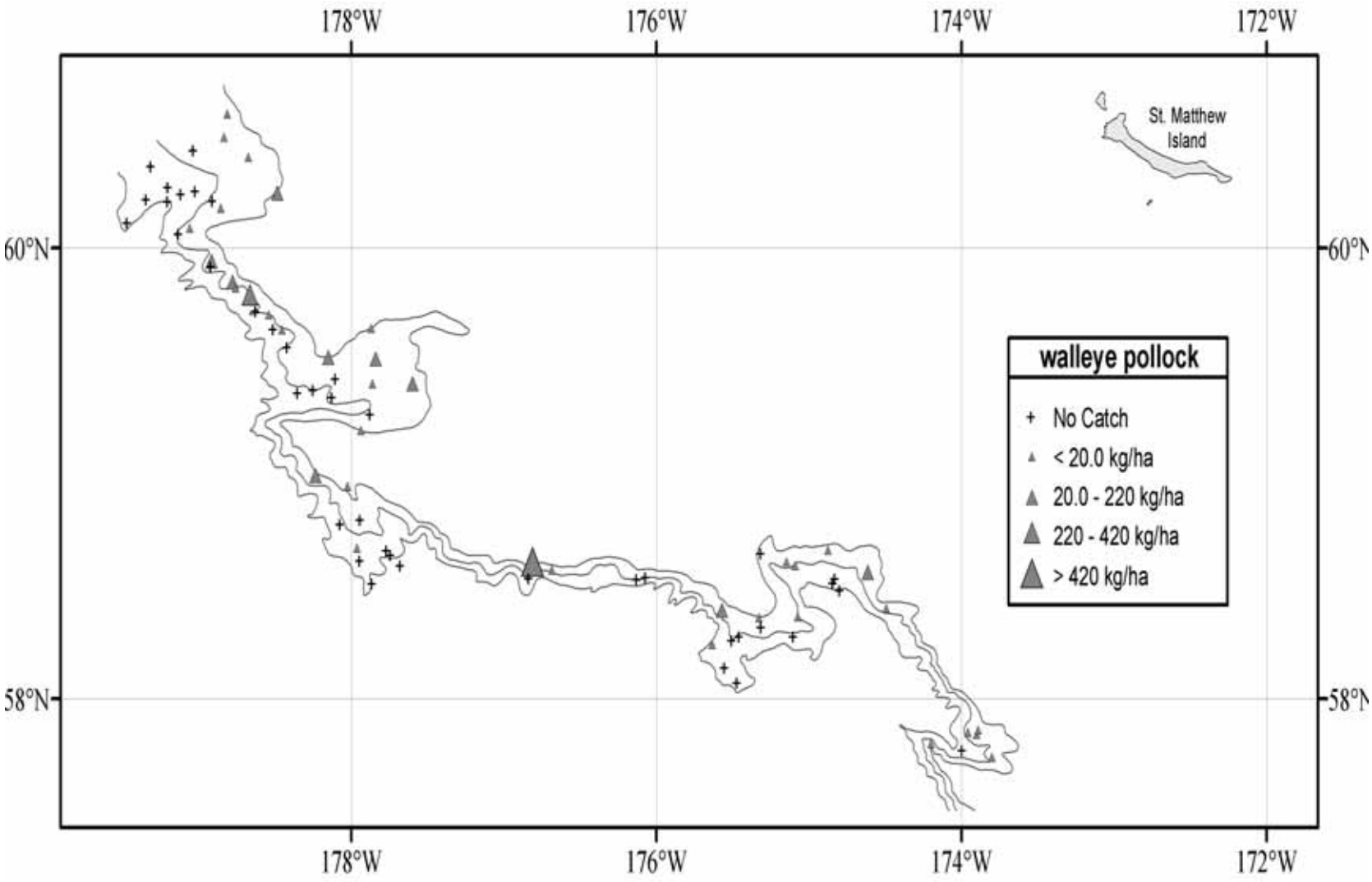

Figure 29. Distribution and relative abundance of walleye pollock from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

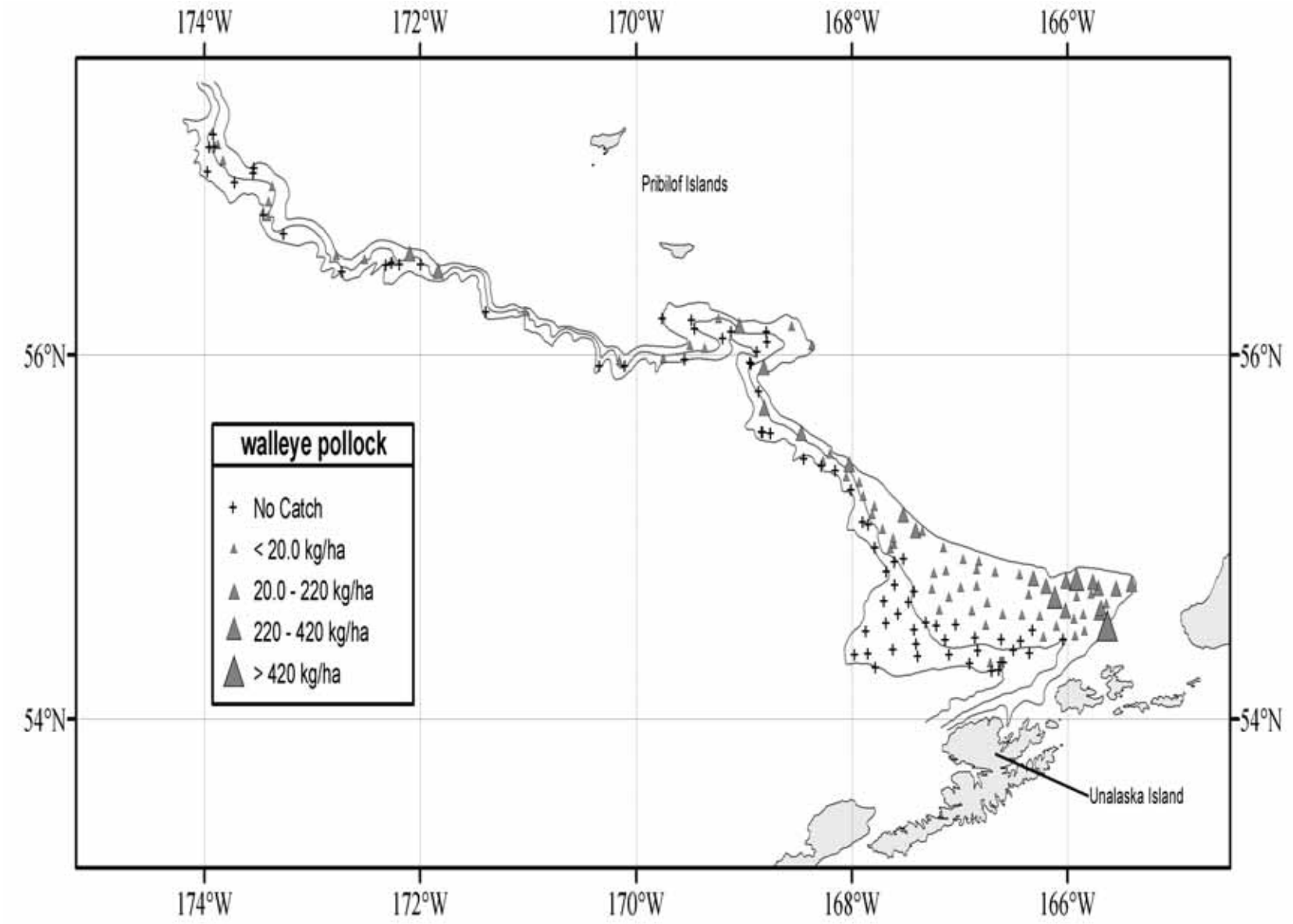

Figure 29. Continued.

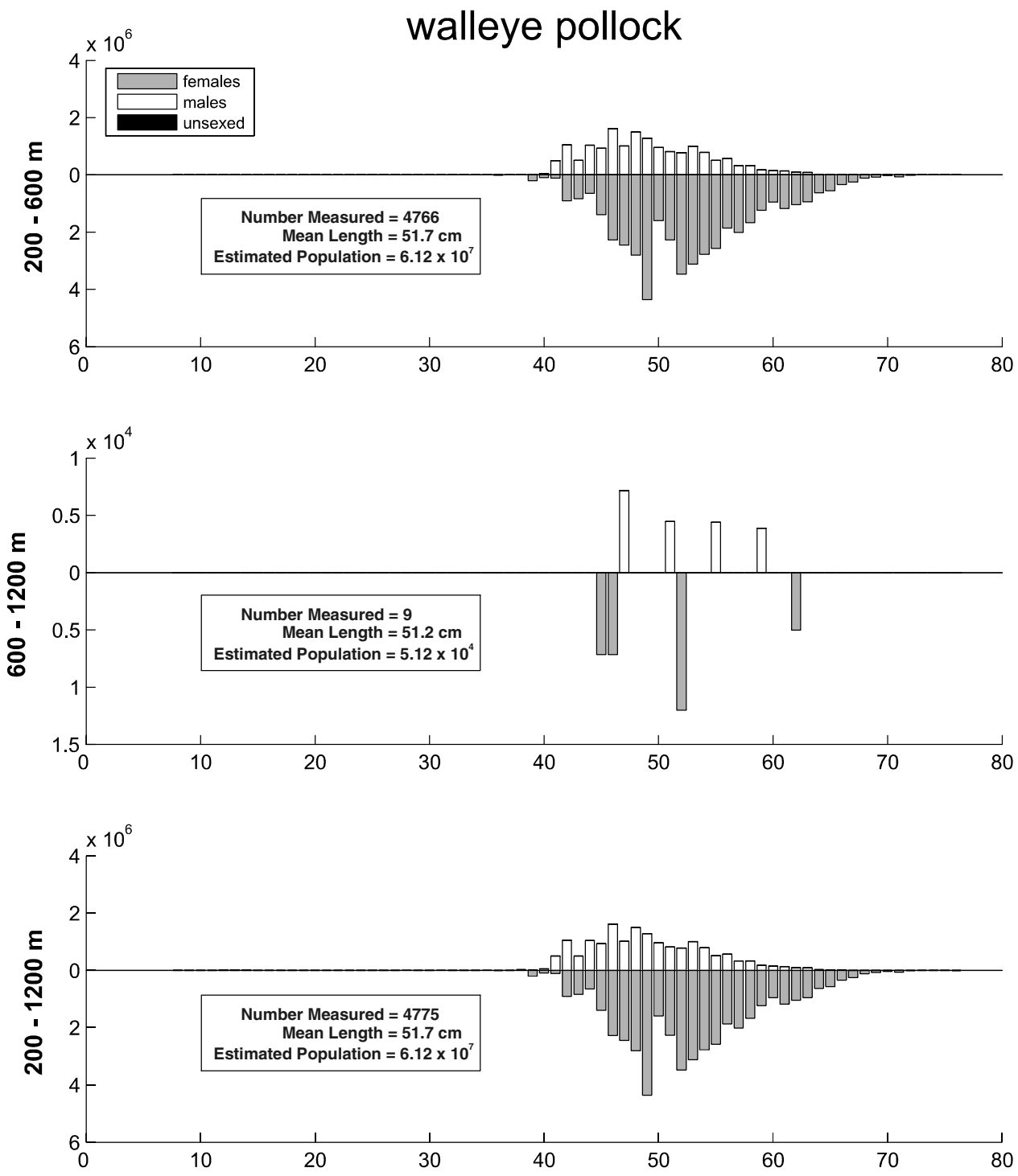

Figure 30. Size composition of the estimated walleye pollock population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 23. Abundance estimates by subarea and depth strata for Pacific cod (*Gadus macrocephalus*) from the 2004 BSS survey.

Gadus macrocephalus **Pacific cod**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.65E+03	7.88E+05	3.06E+05	7.06E+10	4.12E+00	1.96E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.02E+03	3.49E+05	1.18E+05	1.10E+10	8.79E+00	3.01E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	1.50E+03	4.23E+05	2.24E+05	1.73E+10	1.65E+01	4.68E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	4.42E+02	1.38E+05	2.52E+04	1.78E+09	3.57E+00	1.12E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	6.91E+01	2.97E+04	1.51E+01	2.02E+07	1.63E+00	7.01E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.08E+03	3.07E+05	2.64E+05	1.85E+10	4.16E+00	1.18E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**5.76E+03**	**2.03E+06**	**9.37E+05**	**1.19E+11**	**1.90E+00**	**9.82E-01**

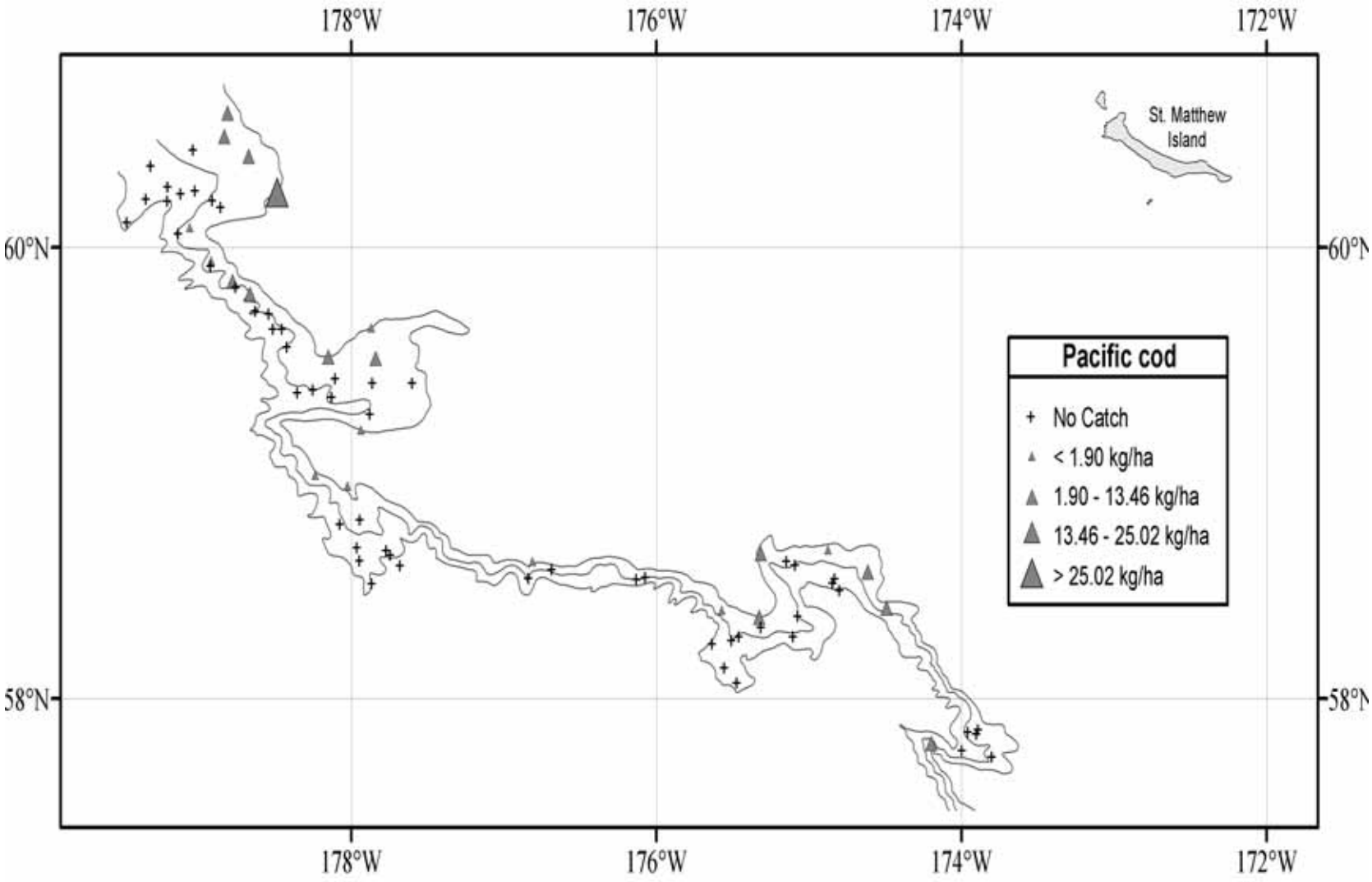

Figure 31. Distribution and relative abundance of Pacific cod from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

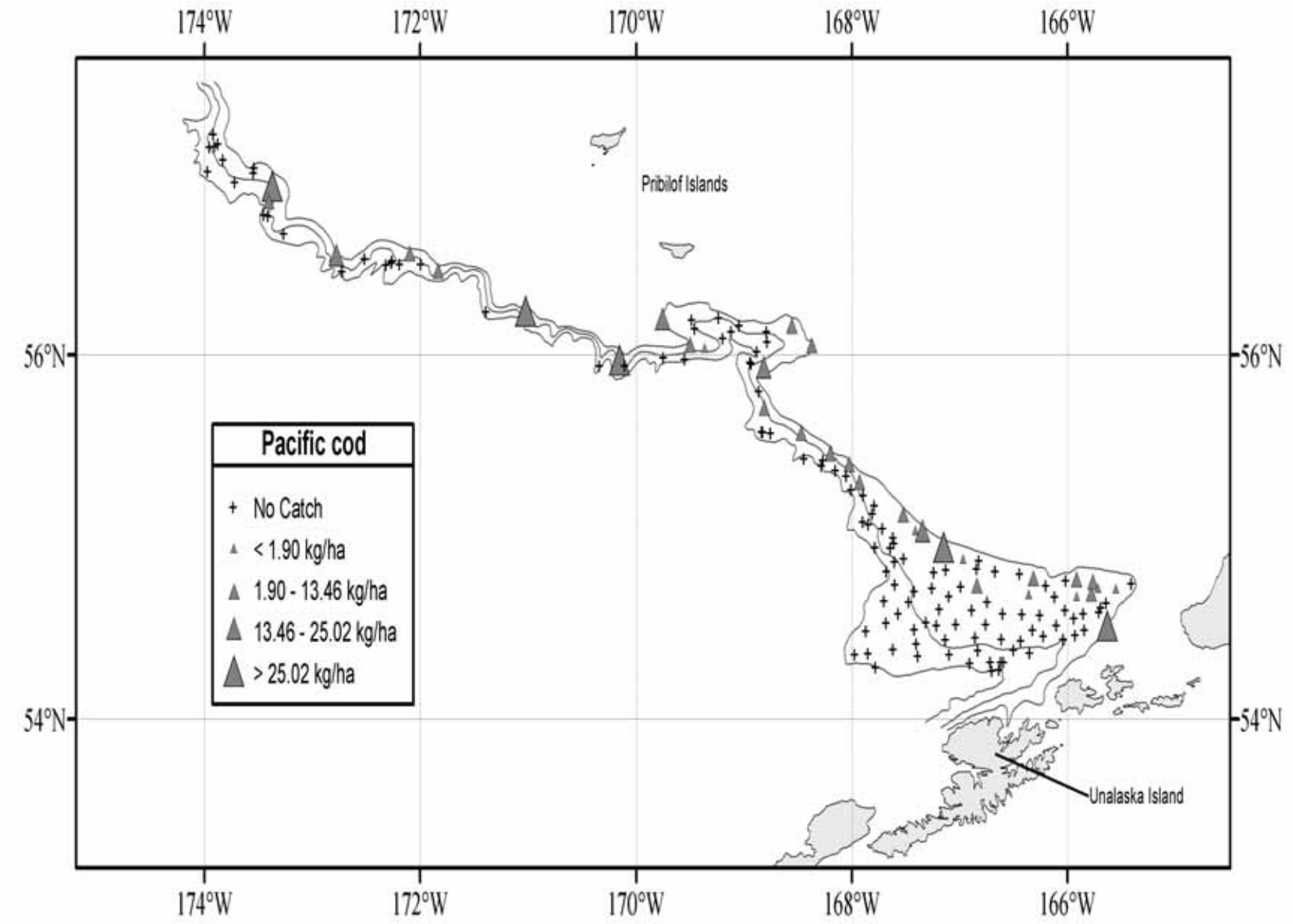

Figure 31. Continued.

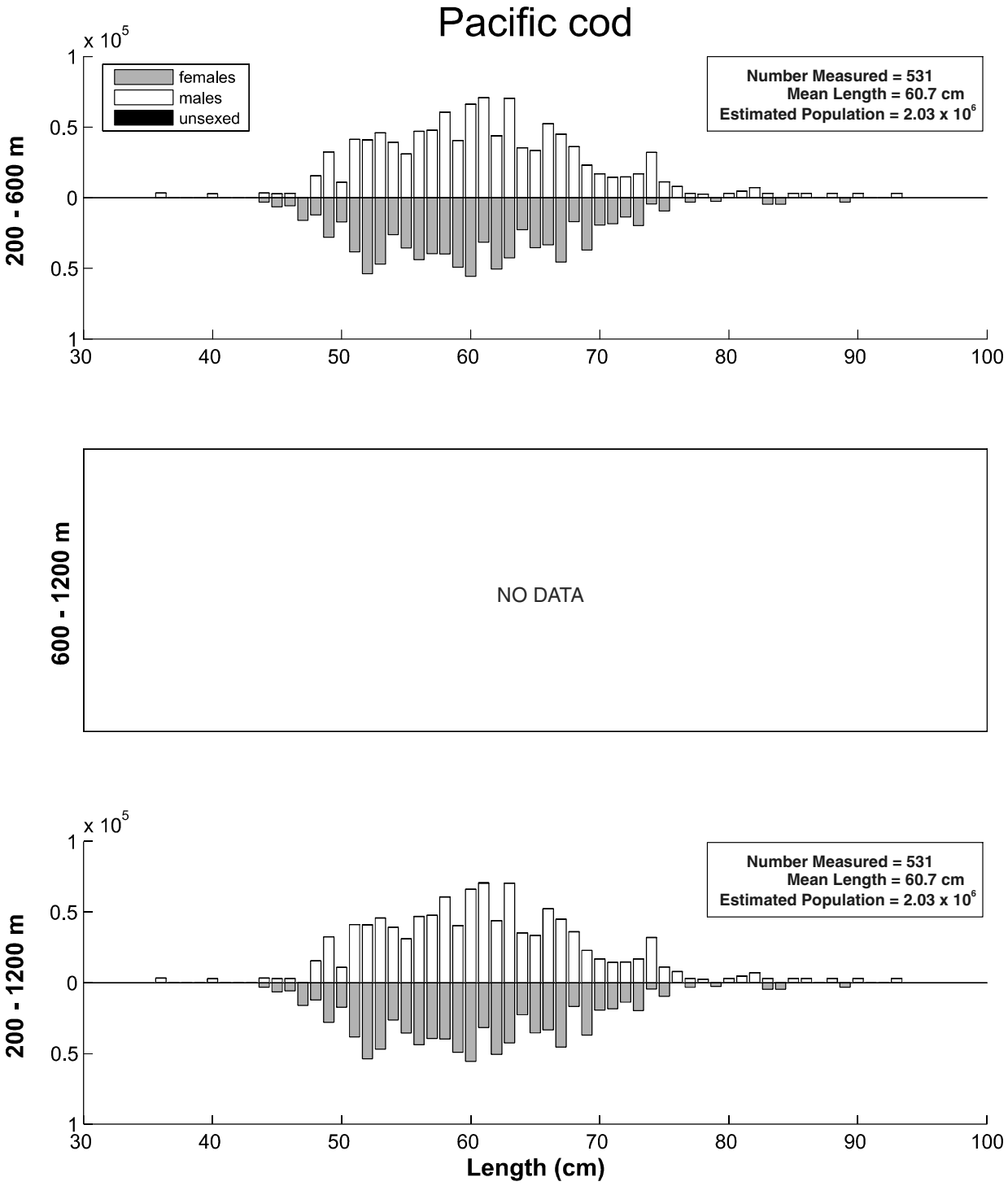

Figure 32. Size composition of the estimated Pacific cod population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 24. Abundance estimates by subarea and depth strata for shortspine thornyhead (*Sebastolobus alascanus*) from the 2004 BSS survey.

Sebastolobus alascanus **shortspine thornyhead**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.23E+03	3.28E+06	2.90E+05	1.99E+12	3.08E+00	8.17E+00
	400-600	7.59E+03	1.61E+07	8.04E+05	3.15E+12	1.87E+01	3.96E+01
	600-800	1.63E+03	1.65E+06	1.64E+05	2.32E+11	9.34E+00	9.47E+00
	800-1,000	2.18E+02	1.29E+05	5.60E+03	2.03E+09	1.61E+00	9.54E-01
	1,000-1,200	5.52E+01	4.81E+04	1.03E+03	1.28E+09	4.99E-01	4.35E-01
2	200-400	1.98E+02	3.14E+05	2.12E+04	5.15E+10	1.71E+00	2.72E+00
	400-600	1.91E+03	2.22E+06	2.22E+05	4.19E+11	2.71E+01	3.15E+01
	600-800	6.09E+02	6.13E+05	3.68E+04	6.55E+10	1.03E+01	1.04E+01
	800-1,000	3.46E+02	3.14E+05	4.53E+03	7.38E+09	6.27E+00	5.67E+00
	1,000-1,200	1.16E+01	6.03E+03	6.06E+01	1.41E+07	2.16E-01	1.13E-01
3	200-400	1.01E+03	2.15E+06	1.01E+06	4.54E+12	1.12E+01	2.38E+01
	400-600	7.31E+02	2.19E+06	1.37E+05	1.75E+12	8.25E+00	2.47E+01
	600-800	6.50E+02	5.10E+05	2.80E+04	2.65E+10	7.14E+00	5.60E+00
	800-1,000	4.35E+01	3.60E+04	3.22E+02	3.73E+08	5.94E-01	4.92E-01
	1,000-1,200	9.59E+00	8.02E+03	9.19E+01	6.43E+07	1.42E-01	1.19E-01
4	200-400	3.39E+01	2.31E+04	9.44E+02	2.69E+08	2.74E-01	1.87E-01
	400-600	3.40E+02	7.75E+05	7.00E+03	1.30E+11	4.66E+00	1.06E+01
	600-800	3.10E+02	1.40E+05	7.23E+03	9.65E+08	4.47E+00	2.01E+00
	800-1,000	8.13E+01	2.31E+04	9.26E+02	8.28E+07	1.15E+00	3.26E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	1.04E+01	8.74E+03	2.72E+01	1.91E+07	2.45E-01	2.06E-01
	400-600	5.92E+02	1.09E+06	3.38E+04	1.31E+11	1.39E+01	2.56E+01
	600-800	1.43E+02	9.03E+04	6.93E+02	1.53E+09	3.32E+00	2.09E+00
	800-1,000	1.38E+02	5.19E+04	2.41E+03	4.93E+08	2.50E+00	9.41E-01
	1,000-1,200	1.09E+01	7.49E+03	1.18E+02	5.60E+07	1.90E-01	1.31E-01
6	200-400	7.02E-01	4.62E+03	4.93E-01	2.13E+07	2.70E-03	1.78E-02
	400-600	4.29E+02	5.69E+05	2.28E+04	4.54E+10	2.51E+00	3.33E+00
	600-800	4.53E+02	1.75E+05	3.03E+04	3.10E+09	4.94E+00	1.91E+00
	800-1,000	2.16E+00	3.08E+03	4.66E+00	9.52E+06	3.35E-02	4.78E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.88E+04**	**3.25E+07**	**2.83E+06**	**1.26E+13**	**6.49E+00**	**1.16E+01**

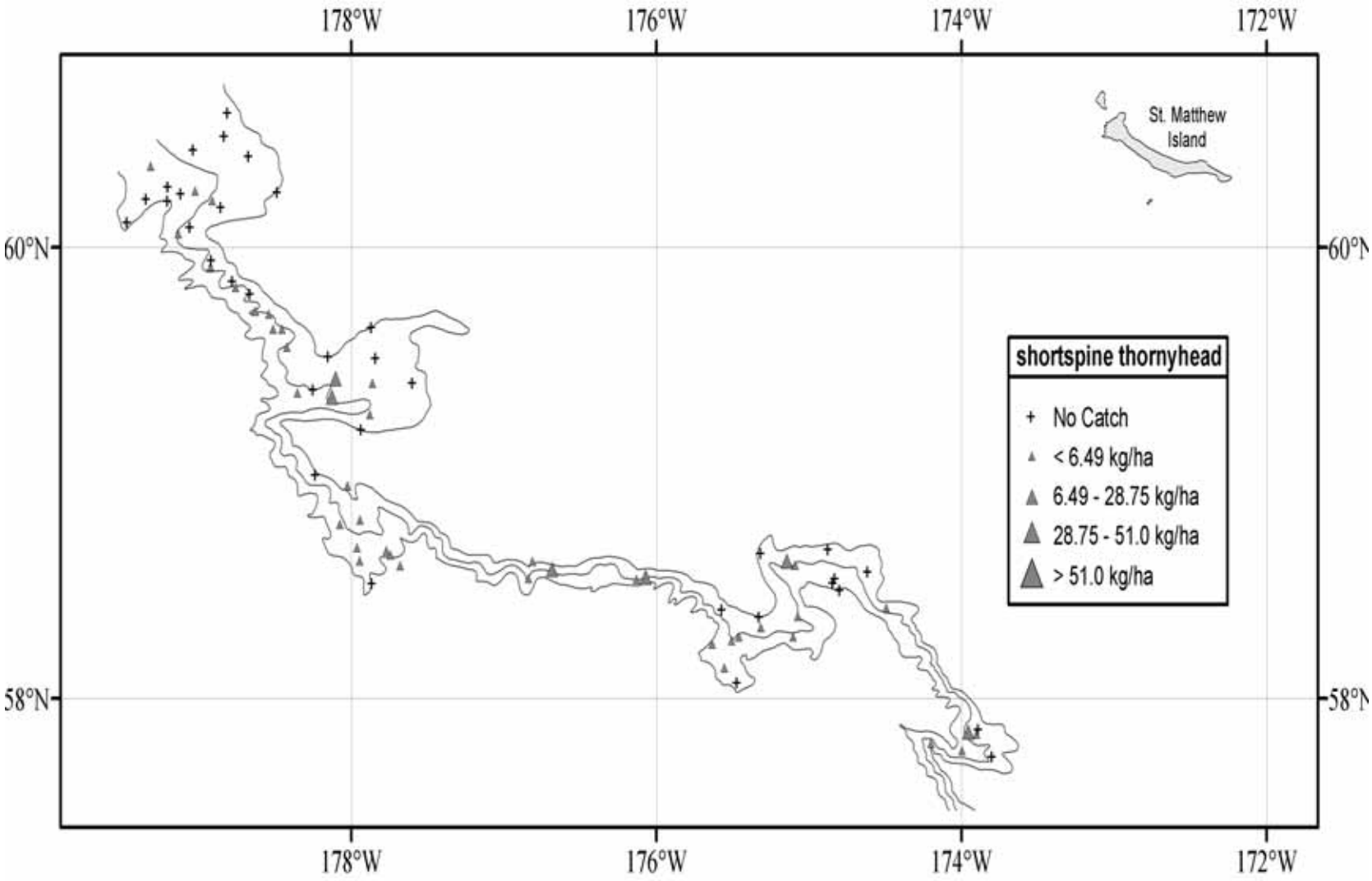

Figure 33. Distribution and relative abundance of shortspine thornyhead from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

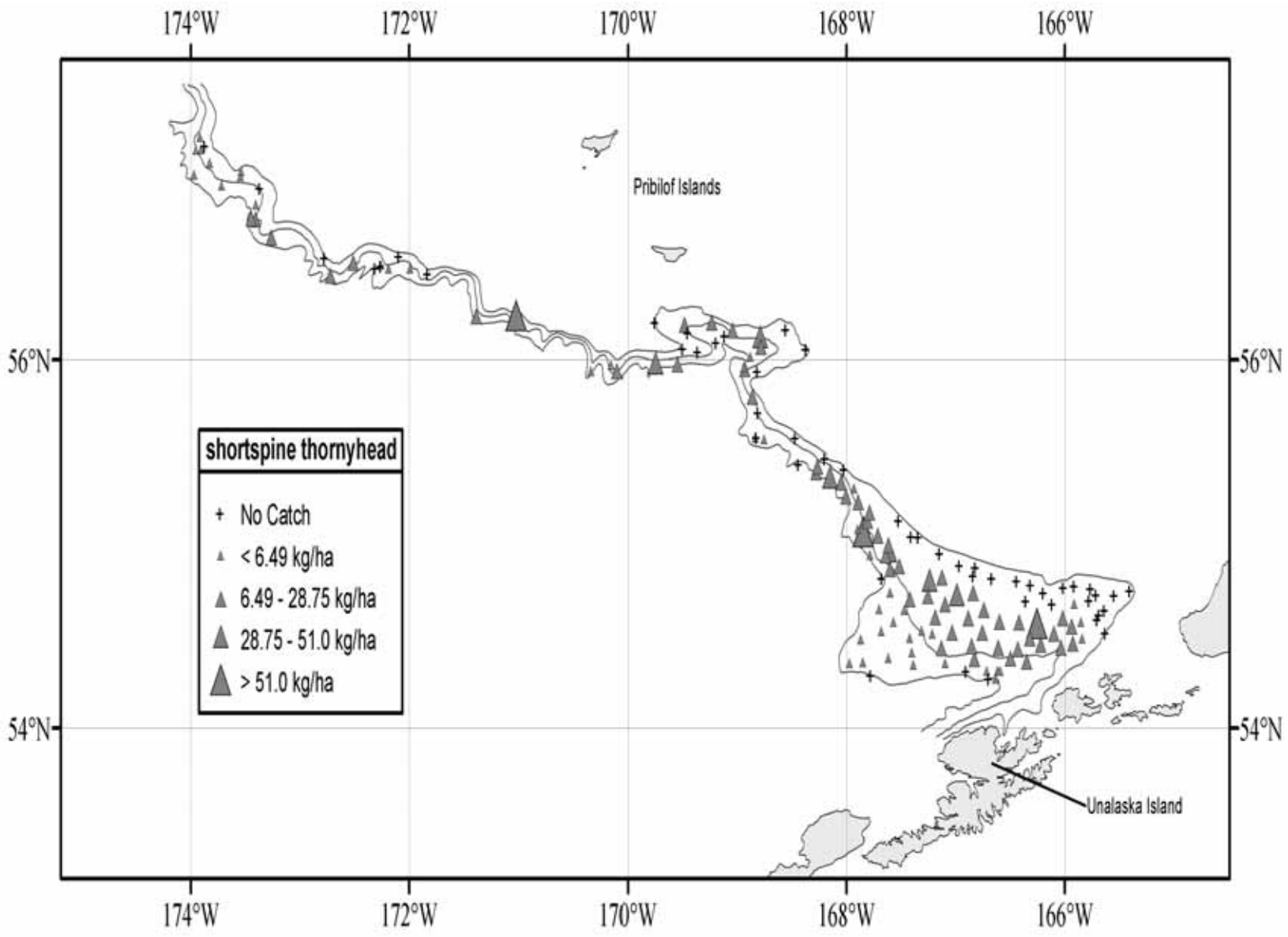

Figure 33. Continued.

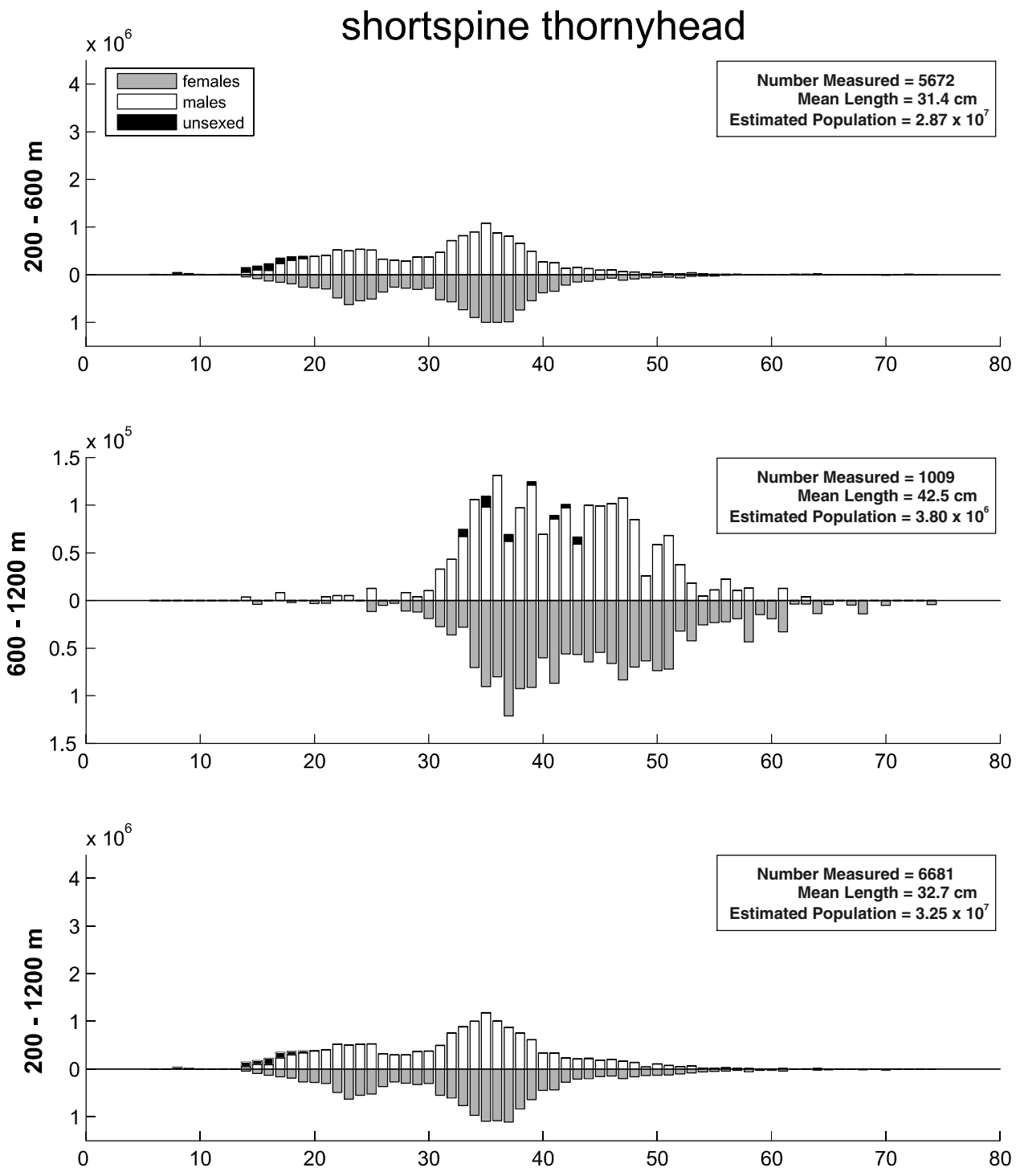

Figure 34. Size composition of the estimated shortspine thornyhead population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 25. Abundance estimates by subarea and depth strata for Pacific ocean perch (*Sebastes alutus*) from the 2004 BSS survey.

Sebastes alutus **Pacific ocean perch**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	5.67E+03	5.77E+06	1.66E+07	1.54E+13	1.41E+01	1.44E+01
	400-600	2.24E+02	2.92E+05	2.28E+03	3.91E+09	5.51E-01	7.19E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	8.24E+03	1.03E+07	1.22E+07	1.93E+13	7.11E+01	8.92E+01
	400-600	6.06E+00	7.39E+03	1.38E+01	2.06E+07	8.60E-02	1.05E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	4.67E+04	5.48E+07	9.30E+08	1.31E+15	5.17E+02	6.06E+02
	400-600	4.08E+01	4.62E+04	1.23E+03	1.41E+09	4.61E-01	5.21E-01
	600-800	3.50E+00	3.83E+03	1.22E+01	1.47E+07	3.84E-02	4.21E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	4.32E+04	4.85E+07	8.07E+08	9.93E+14	3.49E+02	3.92E+02
	400-600	7.62E+00	1.11E+04	5.81E+01	1.23E+08	1.04E-01	1.52E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	7.44E+03	6.52E+06	5.54E+07	4.20E+13	1.76E+02	1.54E+02
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	7.35E+02	2.52E+06	3.99E+05	4.89E+12	2.83E+00	9.72E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.12E+05**	**1.29E+08**	**1.82E+09**	**2.38E+15**	**3.69E+01**	**4.23E+01**

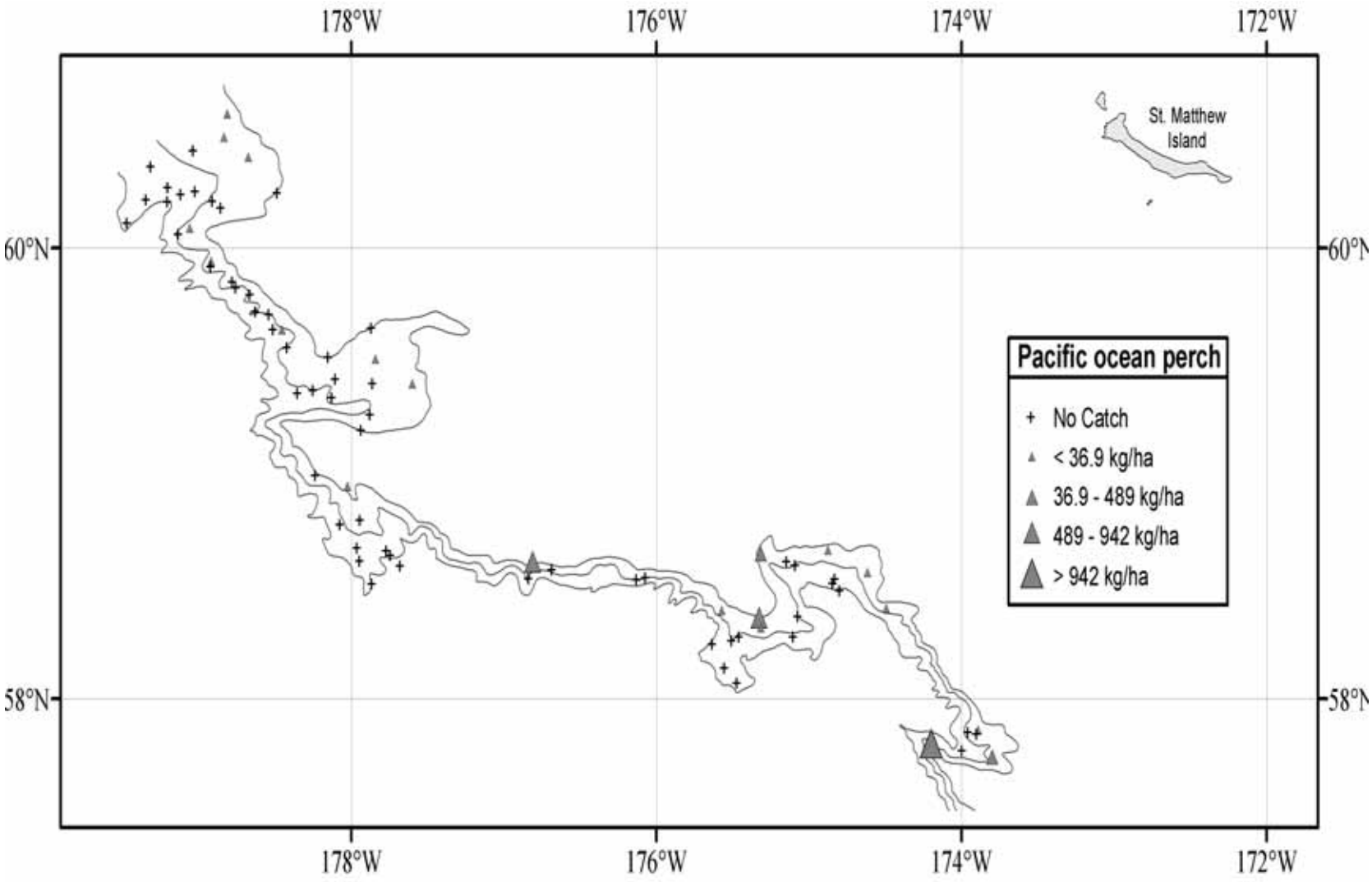

Figure 35. Distribution and relative abundance of Pacific ocean perch from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

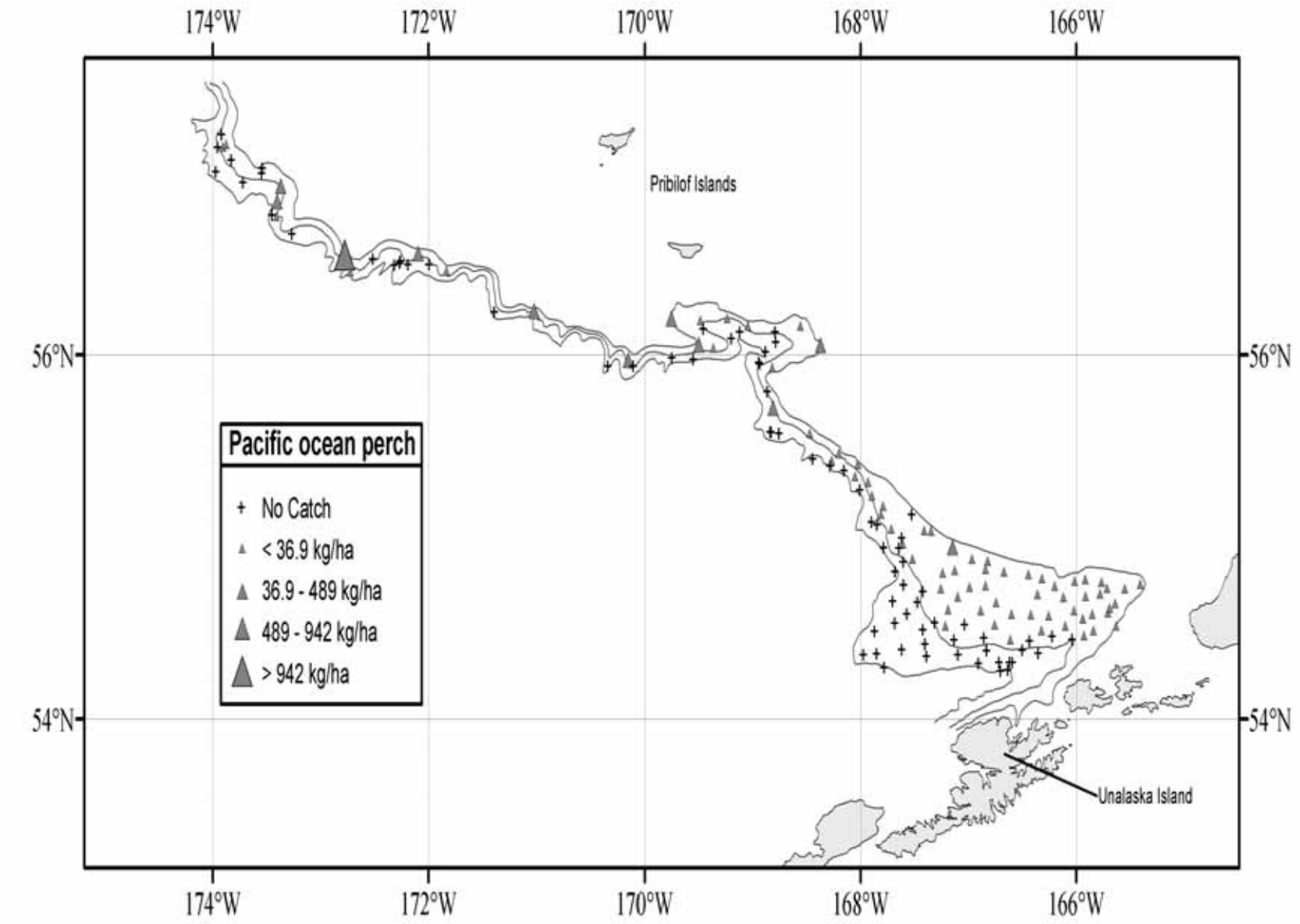

Figure 35. Continued.

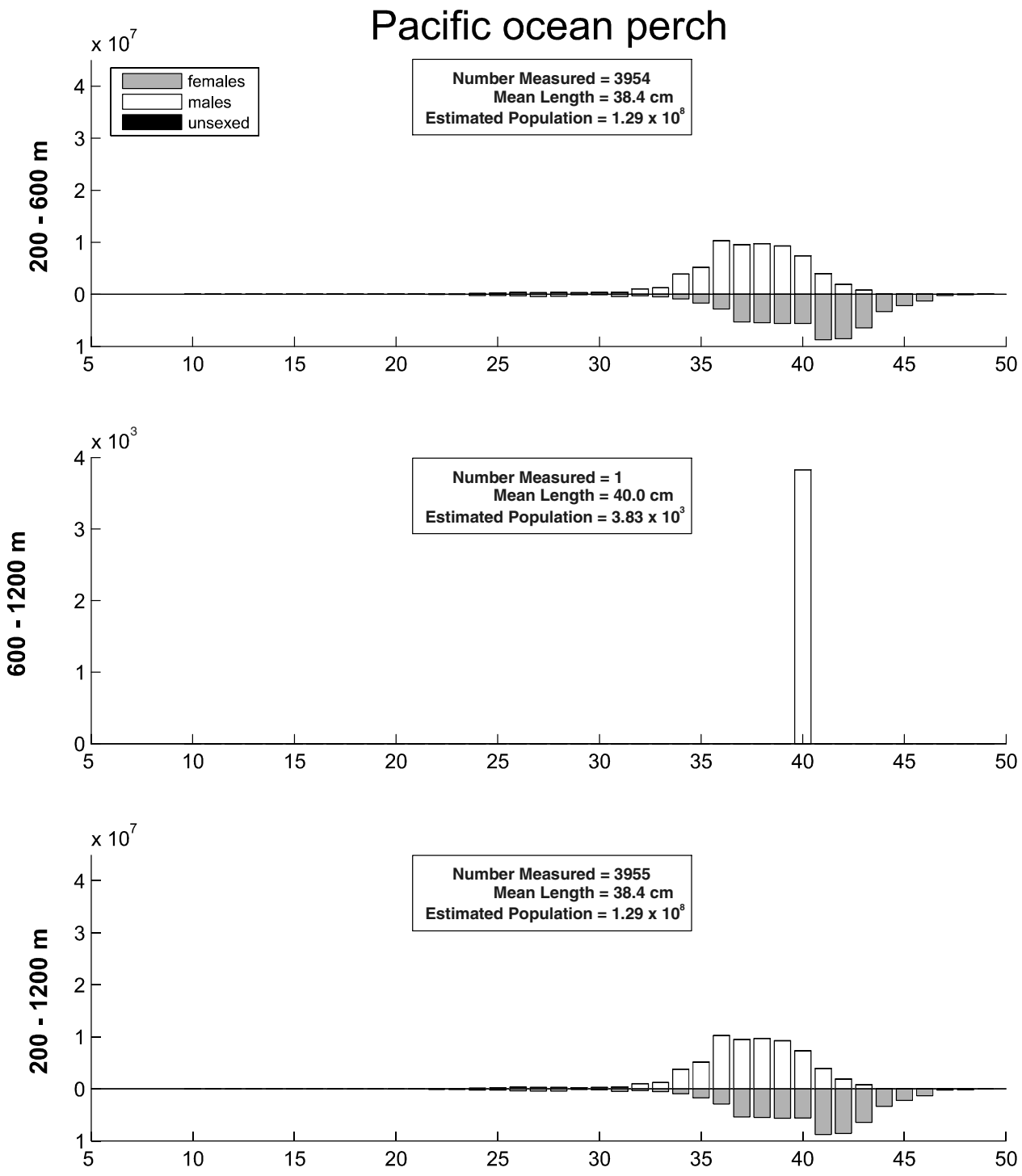

Figure 36. Size composition of the estimated Pacific ocean perch population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 26. Abundance estimates by subarea and depth strata for rougheye rockfish (*Sebastes aleutianus*) from the 2004 BSS survey.

Sebastes aleutianus **rougheye rockfish**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	2.68E+02	4.14E+05	3.50E+03	1.54E+10	6.67E-01	1.03E+00
	400-600	5.19E+01	2.91E+04	4.93E+02	1.65E+08	1.28E-01	7.17E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.39E+02	1.50E+05	3.67E+03	2.91E+09	1.20E+00	1.29E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	4.35E+01	5.66E+04	6.20E+02	2.15E+09	4.81E-01	6.26E-01
	400-600	5.04E+01	3.16E+04	6.22E+02	2.38E+08	5.69E-01	3.57E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	3.25E+01	1.51E+04	3.99E+02	6.68E+07	2.63E-01	1.22E-01
	400-600	1.84E+01	1.12E+04	3.40E+02	1.25E+08	2.53E-01	1.53E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	3.73E+01	1.39E+04	1.39E+03	1.92E+08	1.44E-01	5.34E-02
	400-600	6.00E+00	4.59E+03	3.60E+01	2.11E+07	3.52E-02	2.69E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**6.46E+02**	**7.26E+05**	**1.11E+04**	**2.13E+10**	**2.24E-01**	**2.56E-01**

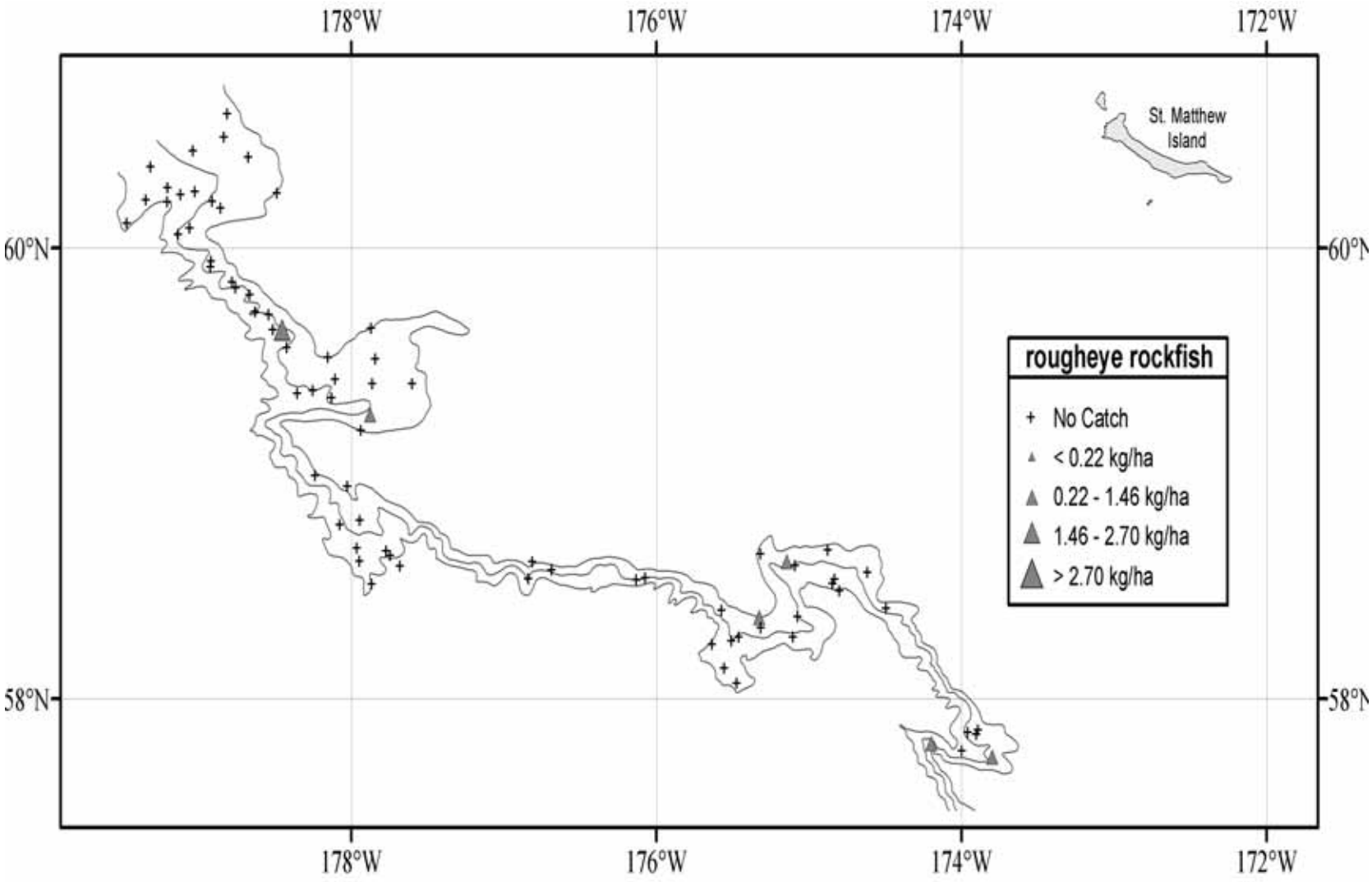

Figure 37. Distribution and relative abundance of rougheye rockfish from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

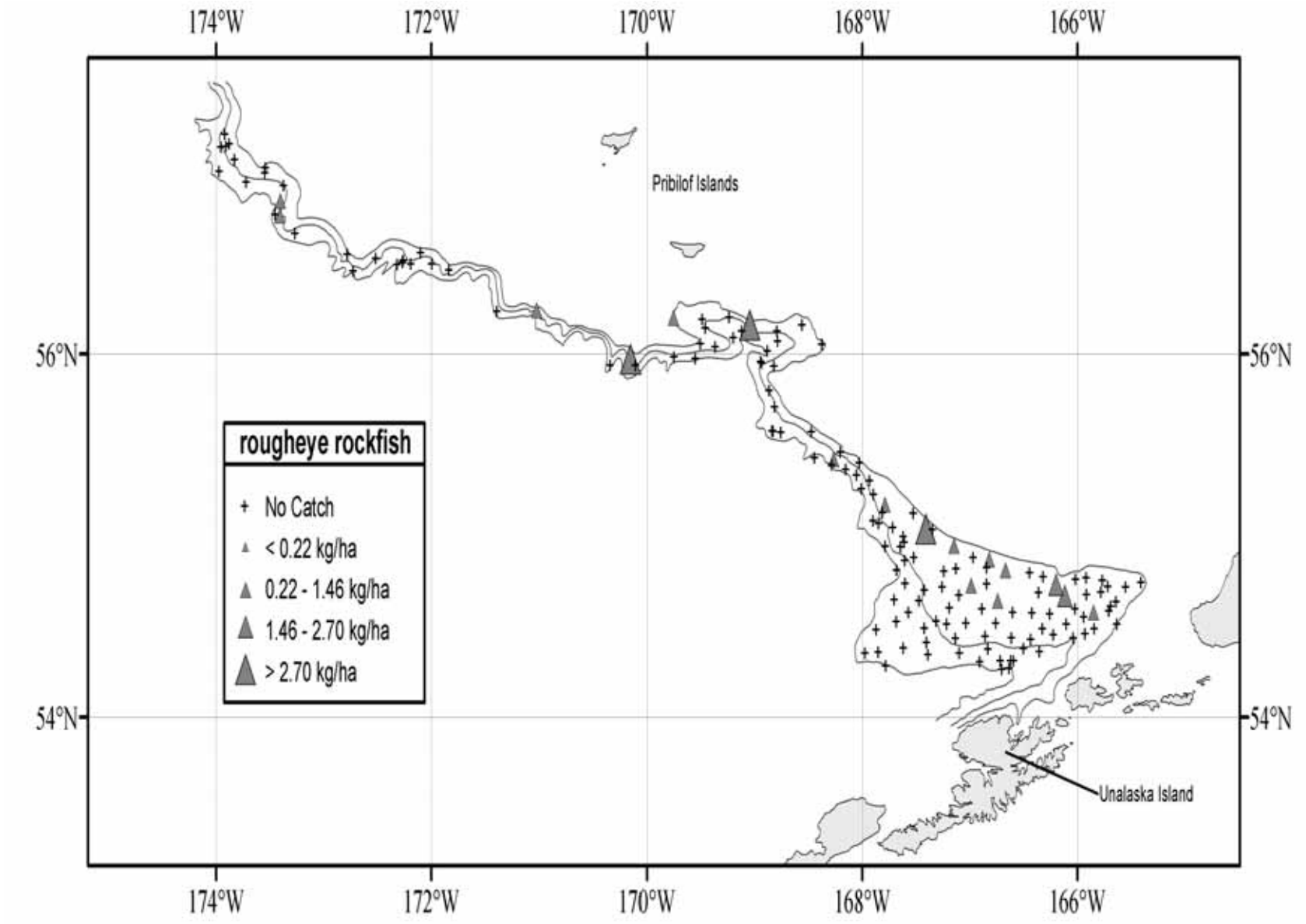

Figure 37. Continued.

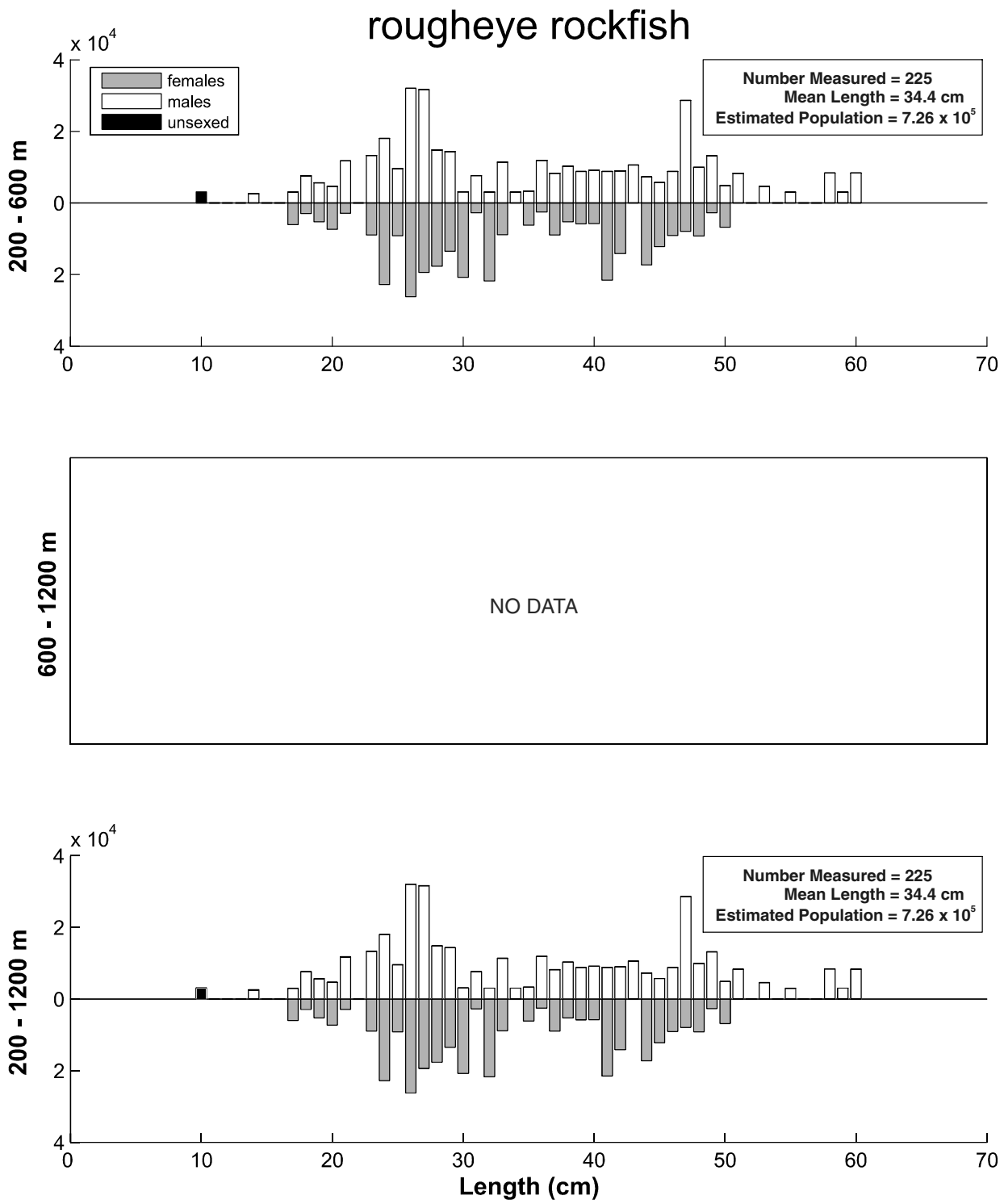

Figure 38. Size composition of the estimated rougheye rockfish population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 27. Abundance estimates by subarea and depth strata for shortraker rockfish (*Sebastes borealis*) from the 2004 BSS survey.

Sebastes borealis **shortraker rockfish**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	3.19E+01	8.30E+03	5.05E+02	3.75E+07	7.96E-02	2.07E-02
	400-600	2.17E+01	2.40E+04	1.39E+02	1.46E+08	5.35E-02	5.90E-02
	600-800	5.78E+00	3.14E+03	3.34E+01	9.86E+06	3.32E-02	1.80E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.17E+02	2.84E+04	7.81E+03	6.36E+08	1.01E+00	2.45E-01
	400-600	1.30E+02	1.04E+05	7.00E+03	4.03E+09	1.85E+00	1.48E+00
	600-800	4.79E+01	8.92E+03	2.29E+03	7.96E+07	8.10E-01	1.51E-01
	800-1,000	2.52E+00	6.14E+03	6.34E+00	3.77E+07	4.55E-02	1.11E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	5.28E+02	7.85E+04	7.67E+04	2.01E+09	5.84E+00	8.69E-01
	400-600	6.81E+02	2.19E+05	1.18E+05	1.11E+10	7.69E+00	2.47E+00
	600-800	1.10E+01	4.08E+03	1.21E+02	1.67E+07	1.21E-01	4.49E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	5.50E+02	4.23E+05	7.81E+04	8.44E+10	4.45E+00	3.42E+00
	400-600	1.41E+02	4.92E+04	6.44E+03	9.20E+08	1.94E+00	6.74E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.17E+02	5.75E+04	9.01E+03	1.92E+09	2.74E+00	1.35E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	6.62E+01	9.10E+03	3.71E+03	3.85E+07	2.55E-01	3.51E-02
	400-600	1.18E+02	4.82E+04	3.73E+03	6.72E+08	6.91E-01	2.82E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**2.57E+03**	**1.07E+06**	**3.14E+05**	**1.06E+11**	**8.01E-01**	**3.32E-01**

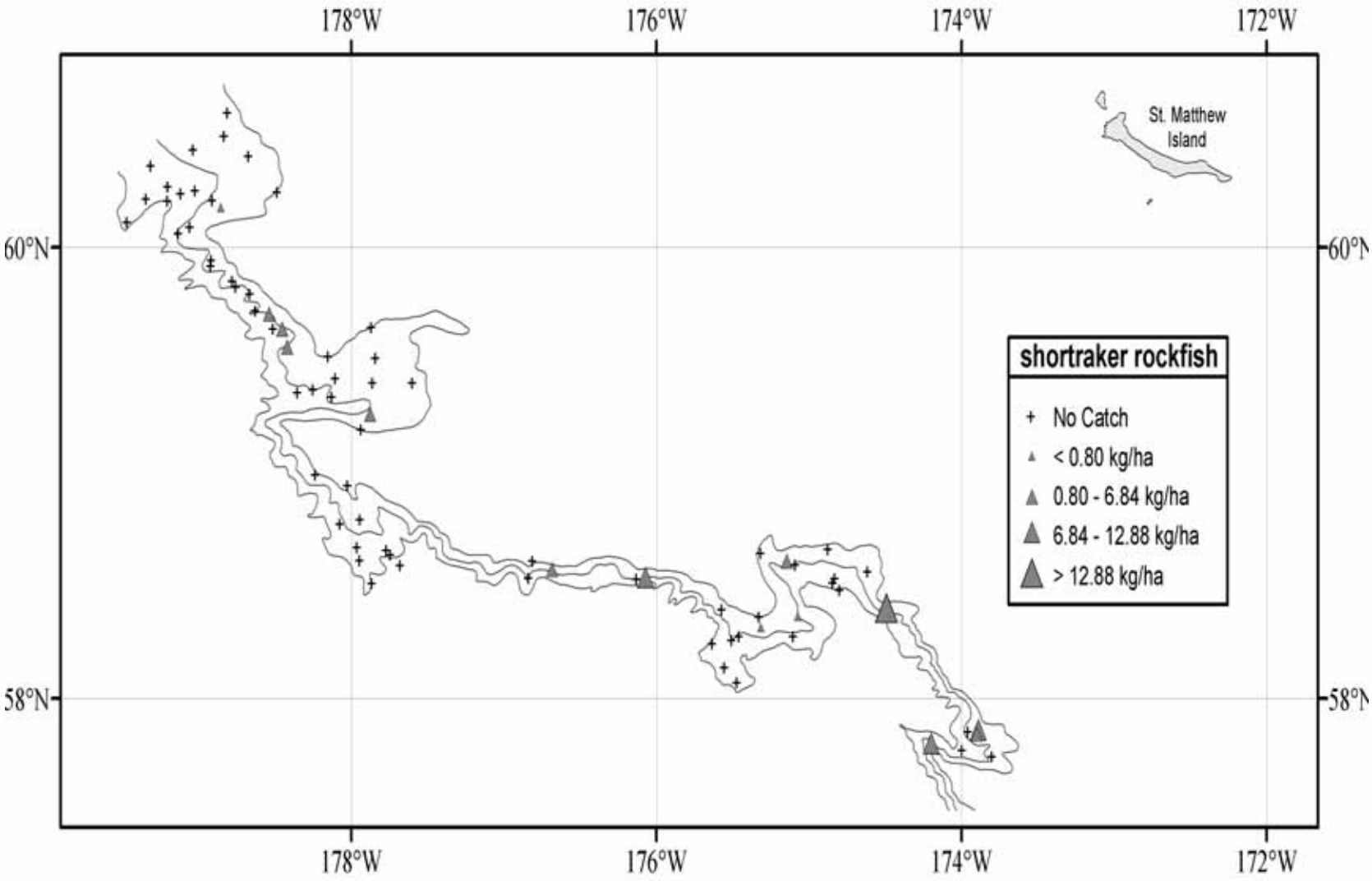

Figure 39. Distribution and relative abundance of shortraker rockfish from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

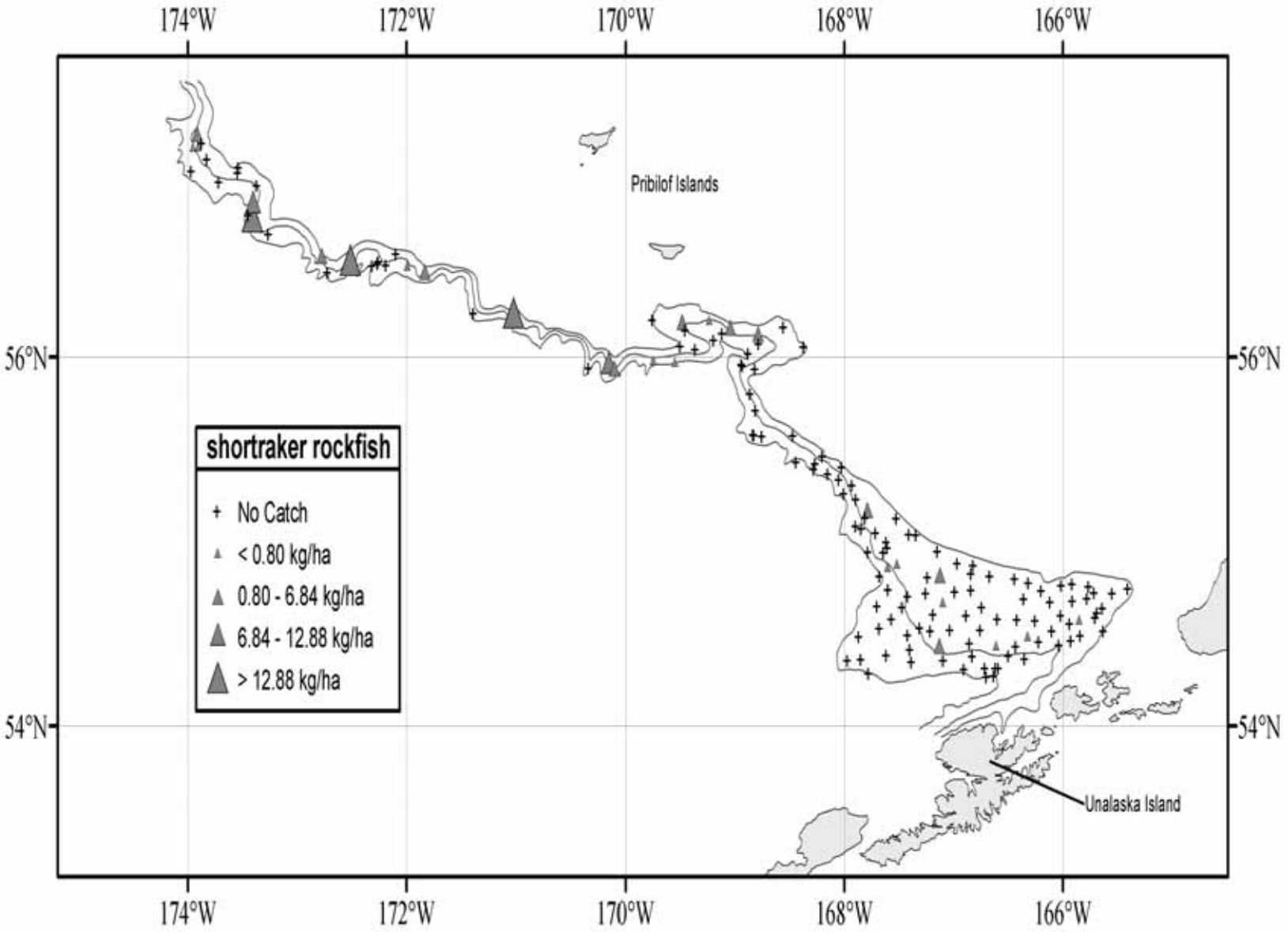

Figure 39. Continued.

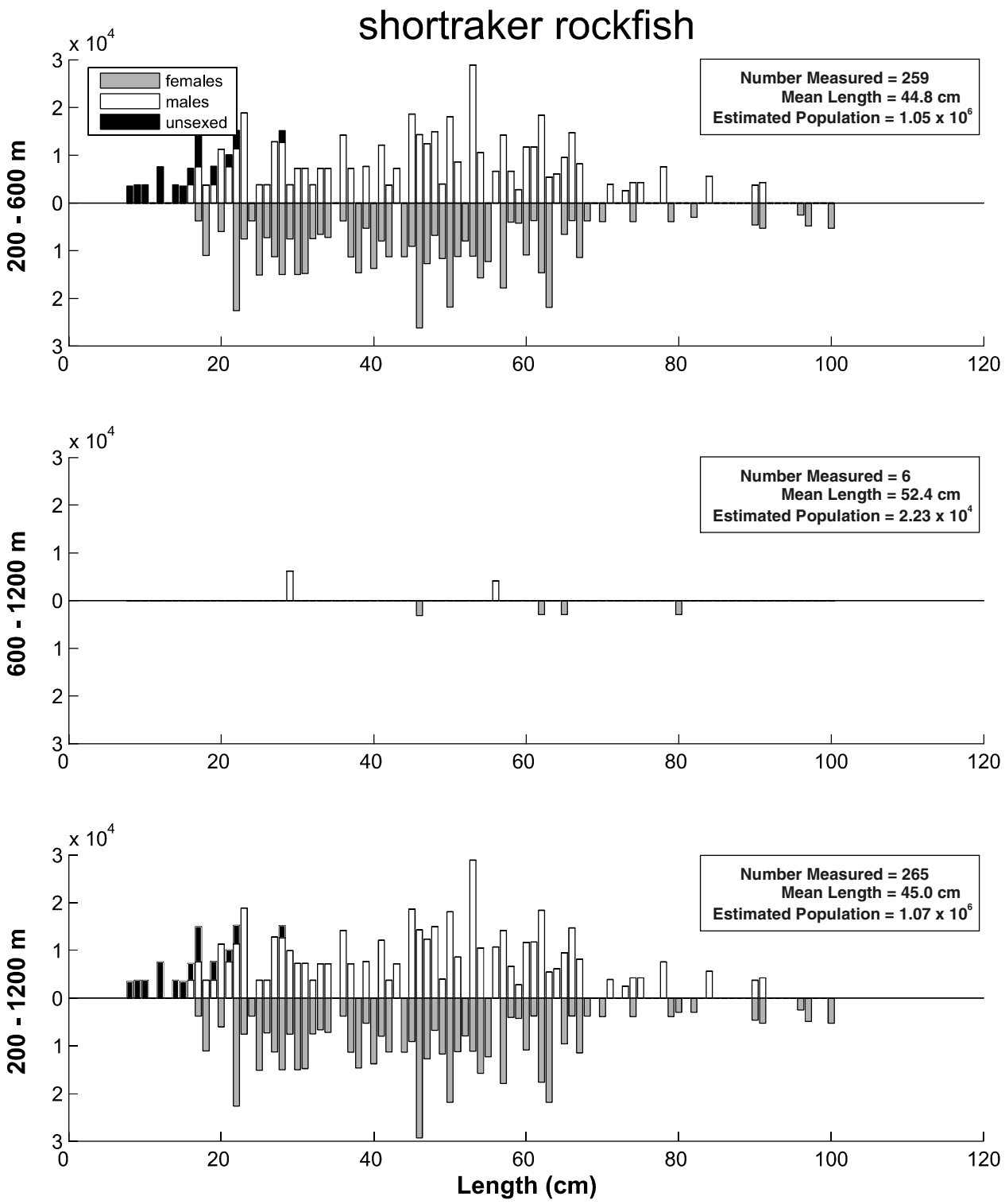

Figure 40. Size composition of the estimated shortraker rockfish population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 28. Abundance estimates by subarea and depth strata for sablefish (*Anoplopoma fimbria*) from the 2004 BSS survey.

Anoplopoma fimbria **sablefish**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	7.36E+02	3.58E+05	5.68E+04	1.25E+10	1.83E+00	8.92E-01
	400-600	3.64E+03	1.54E+06	3.56E+05	6.46E+10	8.96E+00	3.79E+00
	600-800	1.84E+03	6.09E+05	4.13E+05	4.29E+10	1.06E+01	3.50E+00
	800-1,000	9.39E+02	2.86E+05	6.92E+04	7.53E+09	6.93E+00	2.11E+00
	1,000-1,200	2.43E+02	7.19E+04	1.23E+04	1.14E+09	2.19E+00	6.49E-01
2	200-400	1.48E+01	2.54E+03	2.18E+02	6.44E+06	1.28E-01	2.19E-02
	400-600	5.26E+02	1.74E+05	1.60E+05	1.96E+10	7.46E+00	2.46E+00
	600-800	4.53E+02	1.23E+05	1.81E+04	1.45E+09	7.67E+00	2.07E+00
	800-1,000	1.32E+02	3.24E+04	2.35E+03	1.44E+08	2.38E+00	5.85E-01
	1,000-1,200	8.31E+01	2.10E+04	1.74E+03	1.17E+08	1.55E+00	3.92E-01
3	200-400	3.09E+00	3.39E+03	9.52E+00	1.15E+07	3.41E-02	3.75E-02
	400-600	1.33E+01	3.14E+03	1.77E+02	9.86E+06	1.50E-01	3.54E-02
	600-800	3.95E+02	1.14E+05	6.53E+03	5.40E+08	4.34E+00	1.25E+00
	800-1,000	5.18E+01	1.23E+04	8.94E+02	5.53E+07	7.07E-01	1.68E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	2.29E+01	7.72E+03	2.58E+02	2.61E+07	1.85E-01	6.25E-02
	400-600	3.17E+02	1.19E+05	3.62E+04	5.39E+09	4.34E+00	1.63E+00
	600-800	2.90E+02	1.00E+05	3.37E+04	3.70E+09	4.18E+00	1.44E+00
	800-1,000	2.42E+02	6.35E+04	5.26E+04	3.36E+09	3.43E+00	8.98E-01
	1,000-1,200	7.11E+01	2.00E+04	5.06E+03	3.99E+08	1.07E+00	3.02E-01
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	8.43E+01	2.83E+04	6.55E+00	1.89E+07	1.98E+00	6.66E-01
	600-800	2.22E+02	5.18E+04	1.72E+04	9.55E+08	5.13E+00	1.20E+00
	800-1,000	1.84E+01	4.45E+03	3.38E+02	1.98E+07	3.33E-01	8.06E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.66E+02	6.35E+04	3.34E+03	4.62E+08	9.74E-01	3.72E-01
	600-800	1.48E+02	3.85E+04	3.71E+03	2.65E+08	1.62E+00	4.20E-01
	800-1,000	4.86E+01	1.32E+04	5.98E+02	3.96E+07	7.53E-01	2.05E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.07E+04**	**3.86E+06**	**1.25E+06**	**1.65E+11**	**3.65E+00**	**1.34E+00**

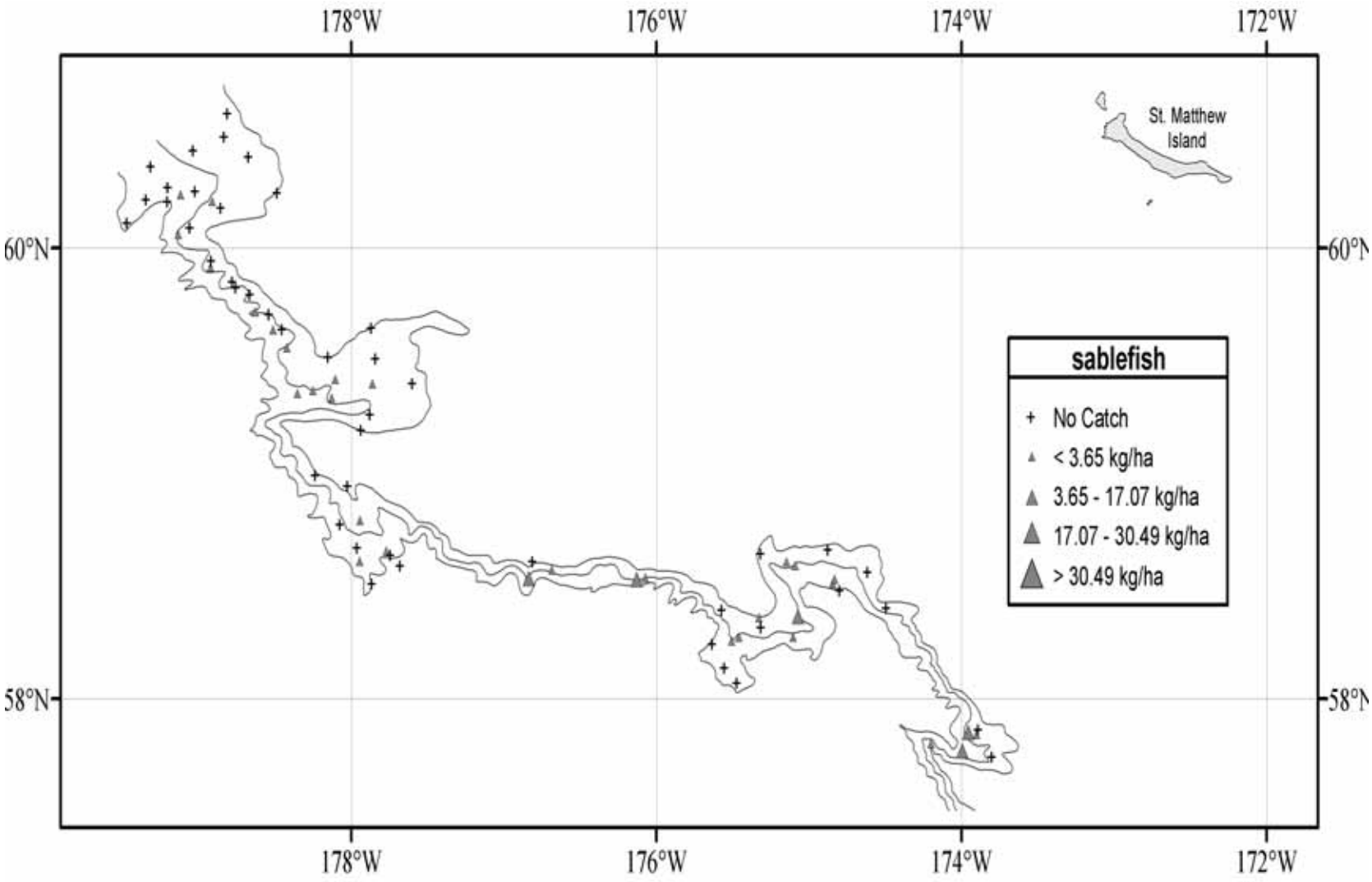

Figure 41. Distribution and relative abundance of sablefish from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

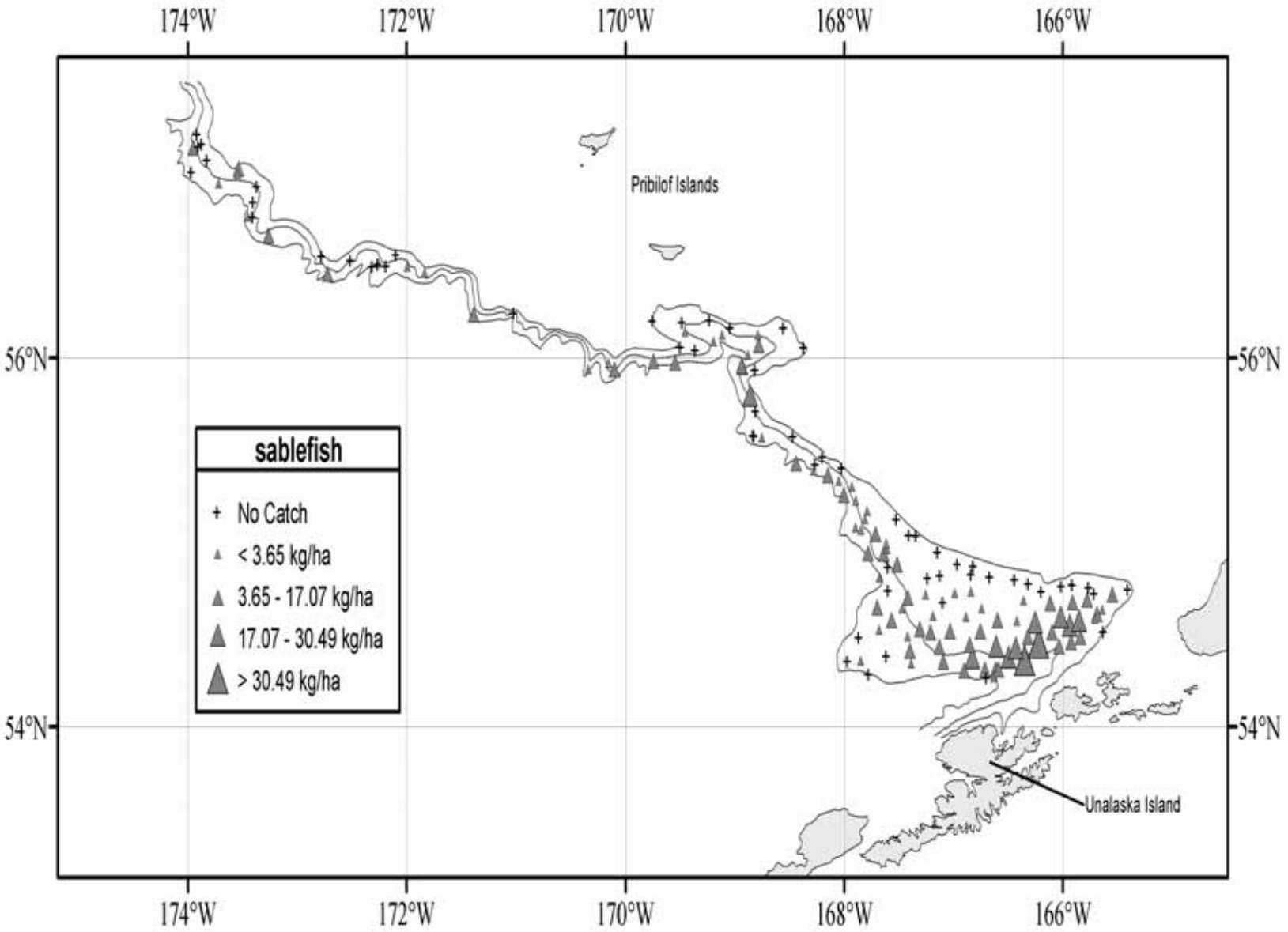

Figure 41. Continued.

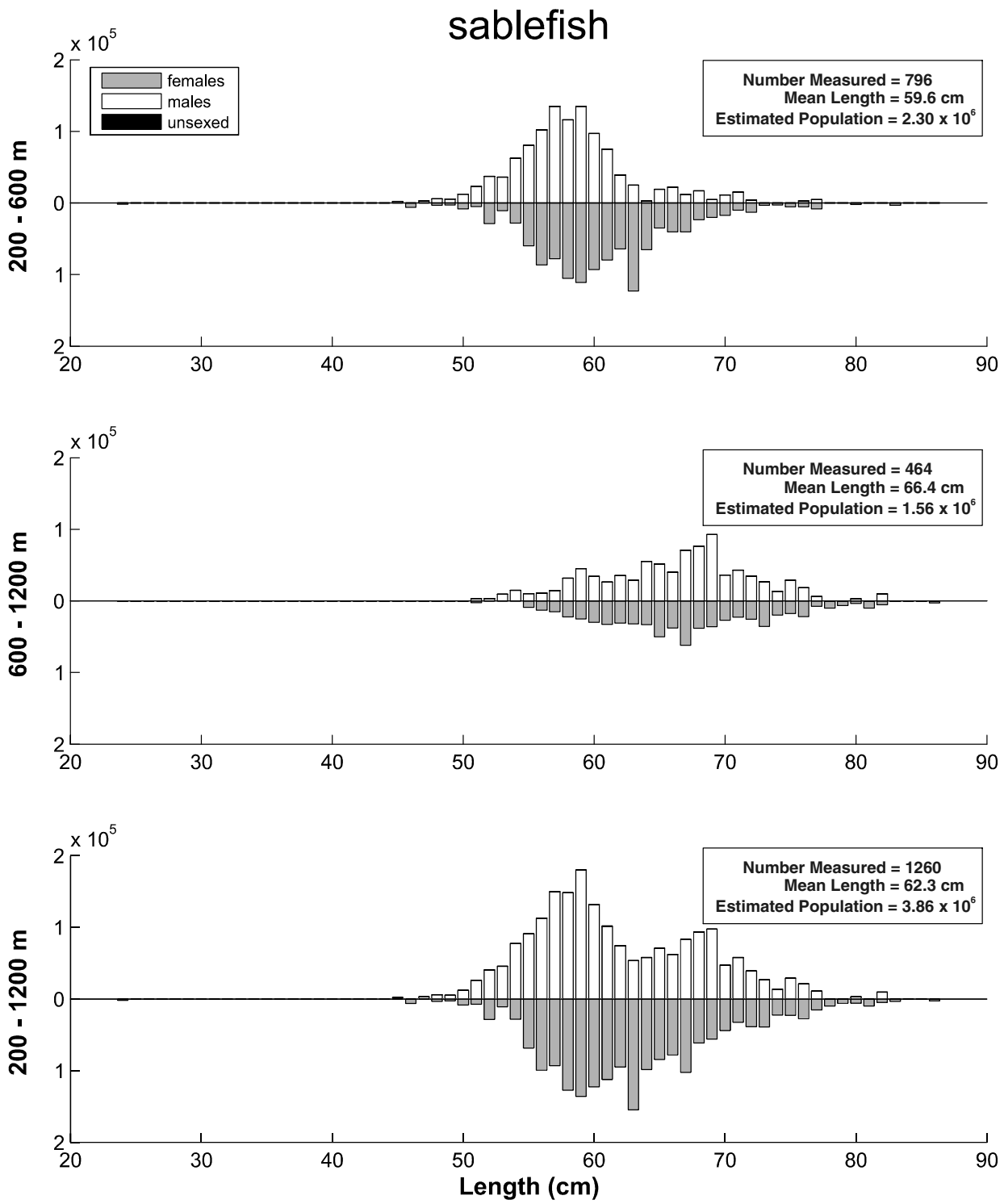

Figure 42. Size composition of the estimated sablefish population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 29. Abundance estimates by subarea and depth strata for bigmouth sculpin (*Hemitripterus bolini*) from the 2004 BSS survey.

Hemitripterus bolini **bigmouth sculpin**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	2.65E+02	6.78E+04	5.46E+03	2.21E+08	6.61E-01	1.69E-01
	400-600	8.96E+01	5.28E+04	1.21E+03	3.29E+08	2.21E-01	1.30E-01
	600-800	1.45E+01	6.63E+03	2.09E+02	4.40E+07	8.30E-02	3.81E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	2.41E+02	4.84E+04	8.03E+03	3.18E+08	2.08E+00	4.18E-01
	400-600	5.62E+01	3.28E+04	1.20E+03	8.91E+07	7.98E-01	4.66E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	6.29E+01	2.05E+04	8.29E+02	9.86E+07	6.95E-01	2.27E-01
	400-600	1.22E+02	3.27E+04	4.31E+03	1.54E+08	1.38E+00	3.69E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	2.23E+02	7.13E+04	2.63E+04	8.89E+08	1.81E+00	5.77E-01
	400-600	6.94E+00	3.70E+03	4.82E+01	1.37E+07	9.51E-02	5.07E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	4.51E+01	1.25E+04	8.85E+02	5.51E+07	1.06E+00	2.96E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.01E+02	5.10E+04	1.10E+03	3.88E+08	3.90E-01	1.96E-01
	400-600	5.87E+01	3.78E+04	1.57E+03	3.03E+08	3.44E-01	2.21E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.29E+03**	**4.38E+05**	**5.12E+04**	**2.90E+09**	**4.25E-01**	**1.42E-01**

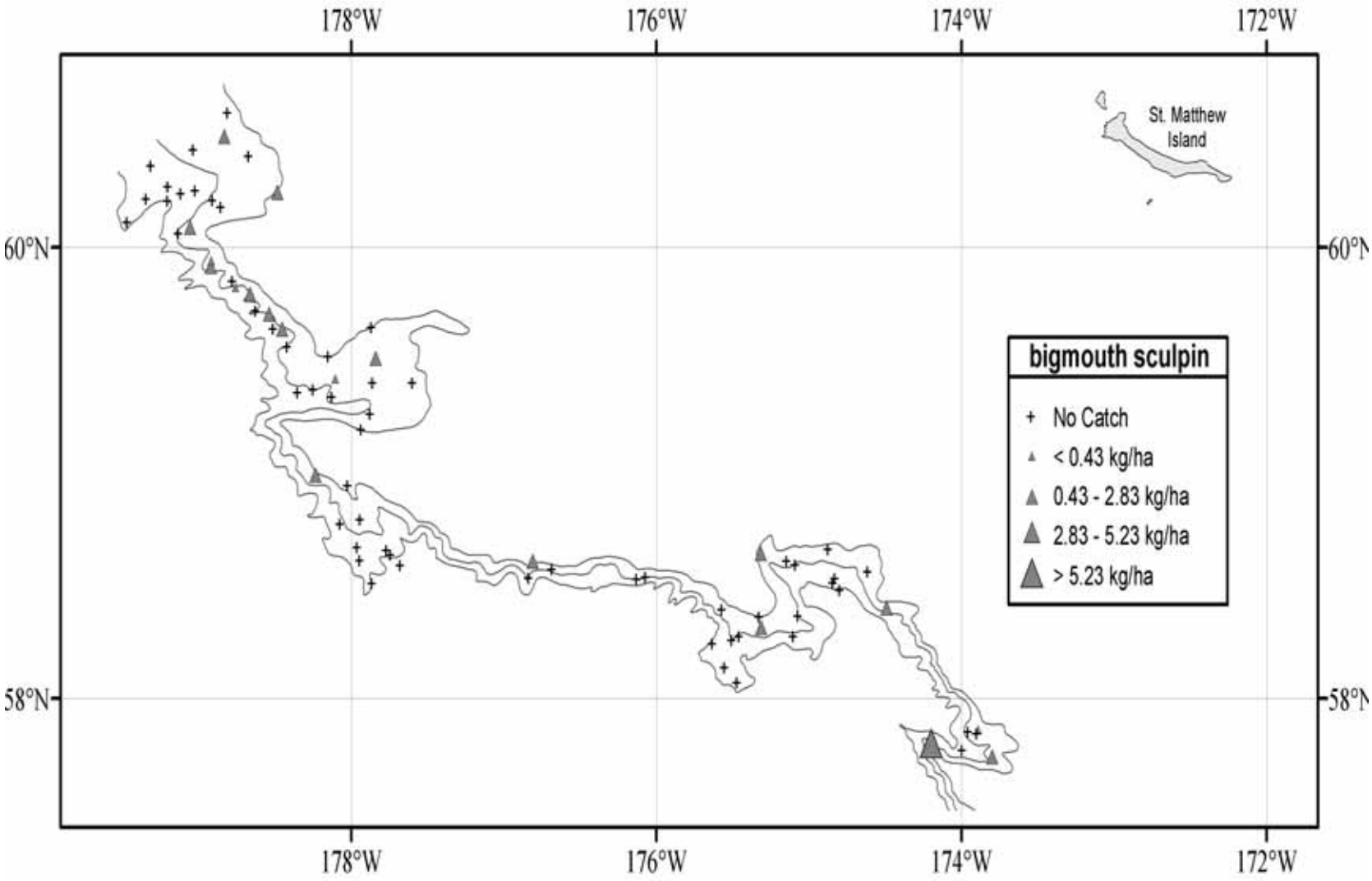

Figure 43. Distribution and relative abundance of bigmouth sculpin from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

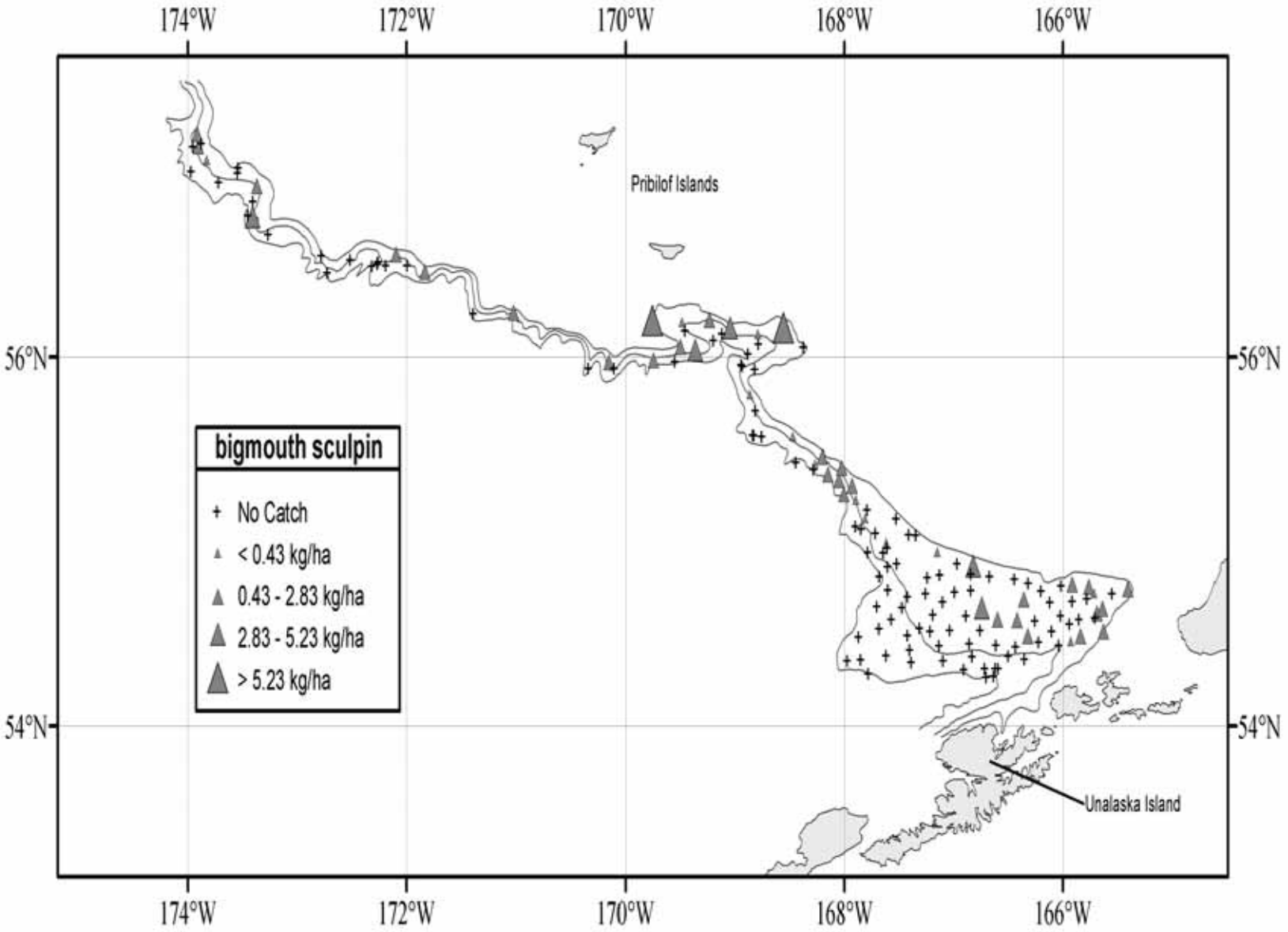

Figure 43. Continued.

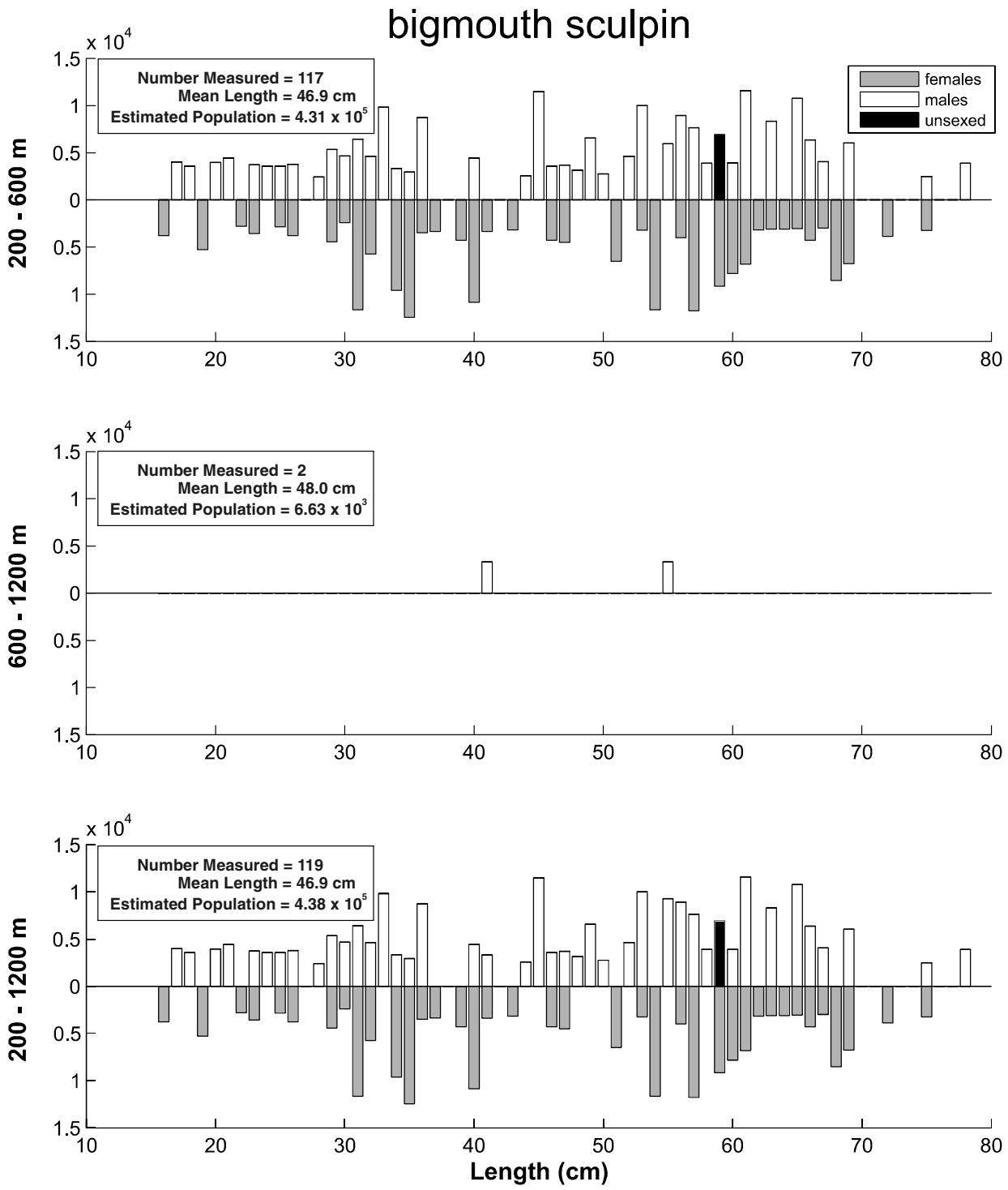

Figure 44. Size composition of the estimated bigmouth sculpin population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 30. Abundance estimates by subarea and depth strata for spinyhead sculpin (*Dasycottus setiger*) from the 2004 BSS survey.

Dasycottus setiger **spinyhead sculpin**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	4.62E+02	3.18E+06	7.84E+03	5.23E+11	1.15E+00	7.93E+00
	400-600	1.04E+02	1.68E+06	4.60E+02	1.04E+11	2.56E-01	4.14E+00
	600-800	9.36E+00	2.85E+05	2.56E+01	2.44E+10	5.37E-02	1.63E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.26E+01	1.01E+05	3.93E+01	2.40E+09	1.09E-01	8.74E-01
	400-600	4.49E-01	3.35E+03	2.01E-01	1.12E+07	6.36E-03	4.75E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	1.47E+01	1.27E+05	9.86E+01	4.06E+09	1.63E-01	1.40E+00
	400-600	2.11E+00	3.82E+04	1.58E+00	3.82E+08	2.38E-02	4.31E-01
	600-800	9.80E-02	4.08E+03	9.60E-03	1.67E+07	1.08E-03	4.49E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	8.34E+00	9.68E+04	1.50E+01	1.66E+09	6.75E-02	7.83E-01
	400-600	2.62E+00	5.20E+04	2.63E+00	1.02E+09	3.58E-02	7.13E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	1.42E+00	8.26E+03	7.90E-01	1.71E+07	3.36E-02	1.95E-01
	400-600	2.56E+00	9.64E+04	2.25E+00	3.25E+09	6.02E-02	2.26E+00
	600-800	1.73E-01	2.70E+03	2.99E-02	7.30E+06	4.01E-03	6.26E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	6.60E+01	5.38E+05	4.16E+02	3.03E+10	2.54E-01	2.07E+00
	400-600	1.15E+01	3.45E+05	2.81E+01	3.11E+10	6.74E-02	2.02E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**6.98E+02**	**6.56E+06**	**8.93E+03**	**7.25E+11**	**2.43E-01**	**2.29E+00**

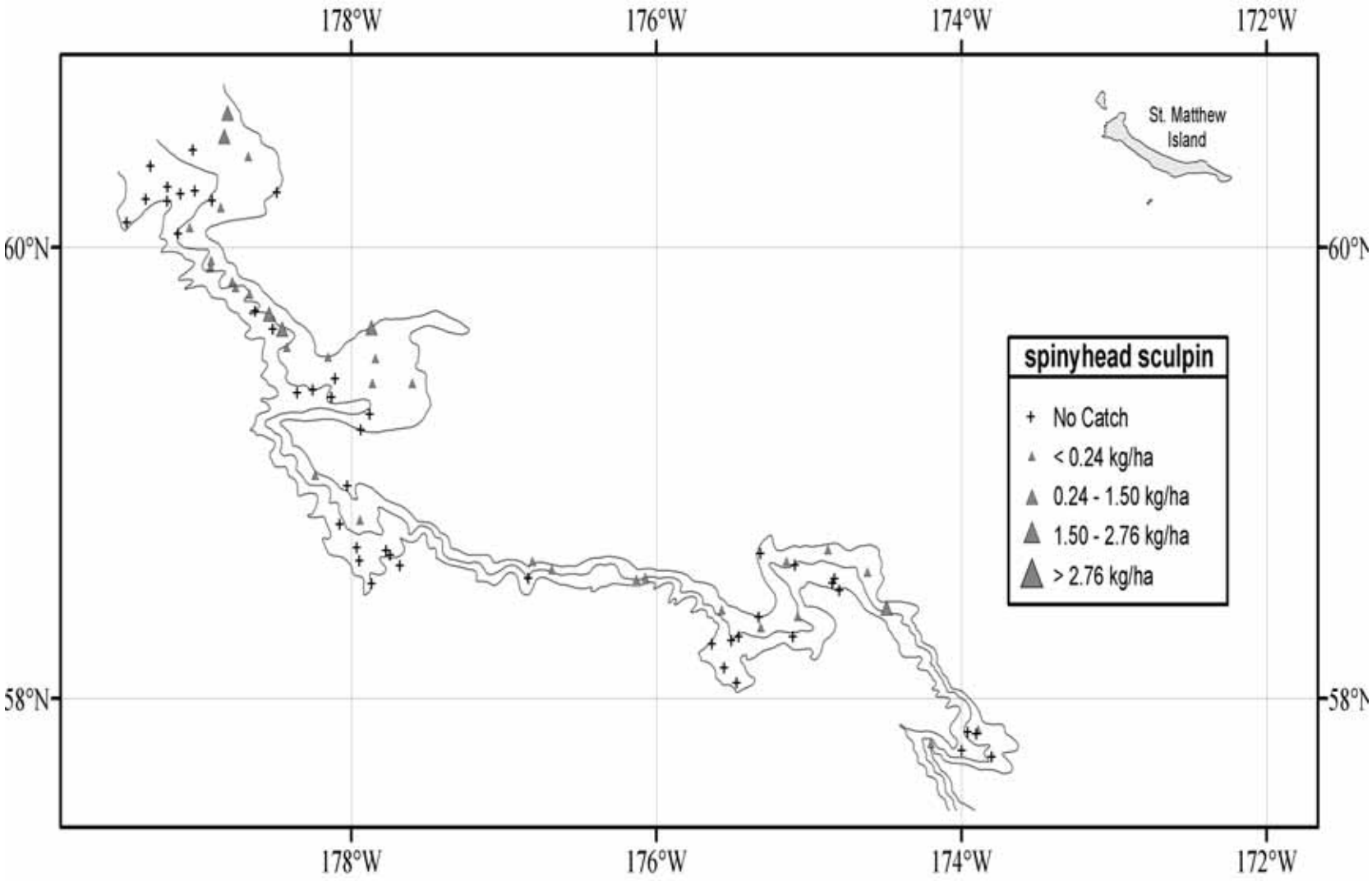

Figure 45. Distribution and relative abundance of spinyhead sculpin from the 2004 survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

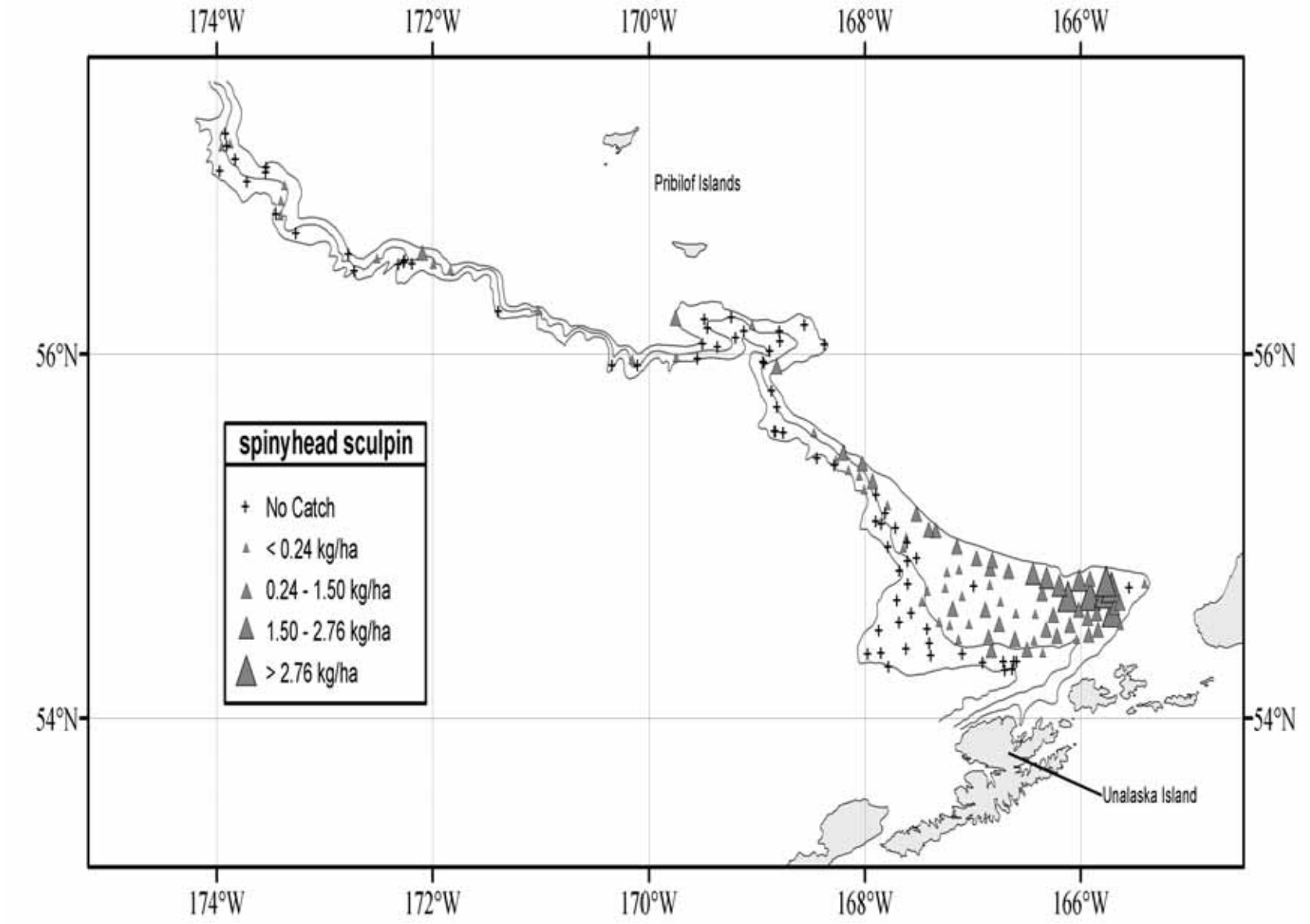

Figure 45. Continued.

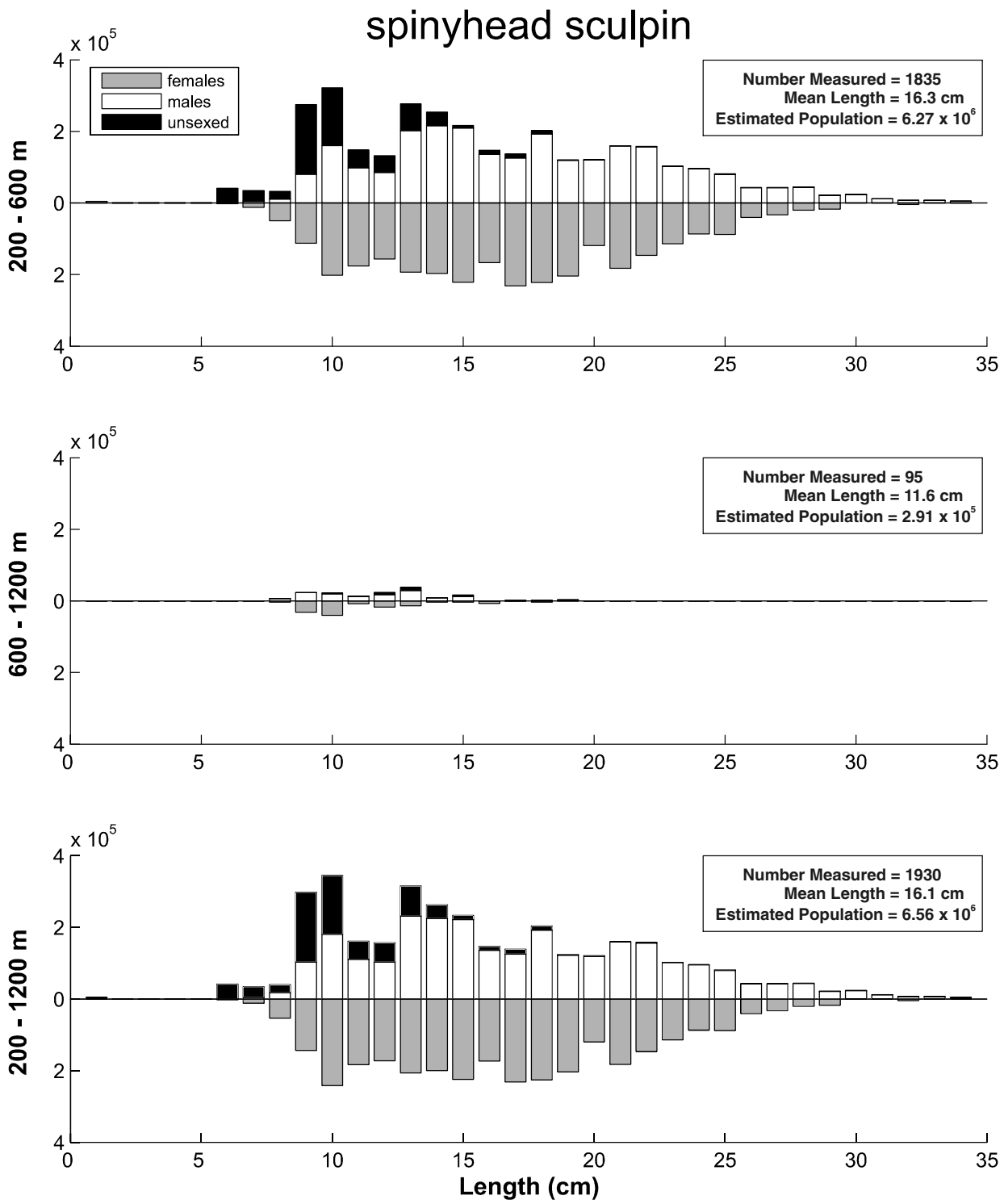

Figure 46. Size composition of the estimated spinyhead sculpin population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 31. Abundance estimates by subarea and depth strata for darkfin sculpin (*Malacocottus zonurus*) from the 2004 BSS survey.

Malacocottus zonurus **darkfin sculpin**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	2.38E+02	1.85E+06	3.00E+03	1.87E+11	5.92E-01	4.60E+00
	400-600	2.69E+01	4.56E+05	3.26E+01	7.61E+09	6.63E-02	1.12E+00
	600-800	7.81E+00	1.49E+05	1.45E+01	5.37E+09	4.48E-02	8.57E-01
	800-1,000	2.87E+00	3.38E+04	8.22E+00	1.14E+09	2.12E-02	2.50E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	4.48E+02	3.07E+06	5.04E+04	2.11E+12	3.87E+00	2.65E+01
	400-600	6.00E+01	3.88E+05	2.55E+03	1.01E+11	8.51E-01	5.50E+00
	600-800	2.21E+01	2.30E+05	3.05E+02	3.12E+10	3.73E-01	3.90E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	3.06E-01	2.19E+03	9.37E-02	4.78E+06	5.71E-03	4.08E-02
3	200-400	3.21E+02	2.63E+06	5.08E+04	2.65E+12	3.55E+00	2.91E+01
	400-600	5.03E-01	3.31E+04	2.53E-01	1.09E+09	5.68E-03	3.73E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	2.27E+02	2.98E+06	1.17E+04	3.01E+12	1.83E+00	2.41E+01
	400-600	8.68E+00	1.66E+05	4.95E+01	2.07E+10	1.19E-01	2.28E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	4.89E-01	9.99E+03	2.40E-01	9.98E+07	7.39E-03	1.51E-01
5	200-400	2.30E+00	4.02E+04	4.15E+00	1.14E+09	5.43E-02	9.49E-01
	400-600	9.50E+00	2.15E+05	2.46E+01	1.23E+10	2.23E-01	5.05E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	3.51E+02	2.38E+06	2.18E+04	8.08E+11	1.35E+00	9.16E+00
	400-600	7.59E+01	6.32E+05	1.72E+03	1.24E+11	4.45E-01	3.70E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	3.32E+00	1.27E+04	1.10E+01	1.62E+08	6.70E-02	2.57E-01
All Areas and Depths Combined		**1.80E+03**	**1.53E+07**	**1.42E+05**	**9.08E+12**	**2.93E-01**	**2.48E+00**

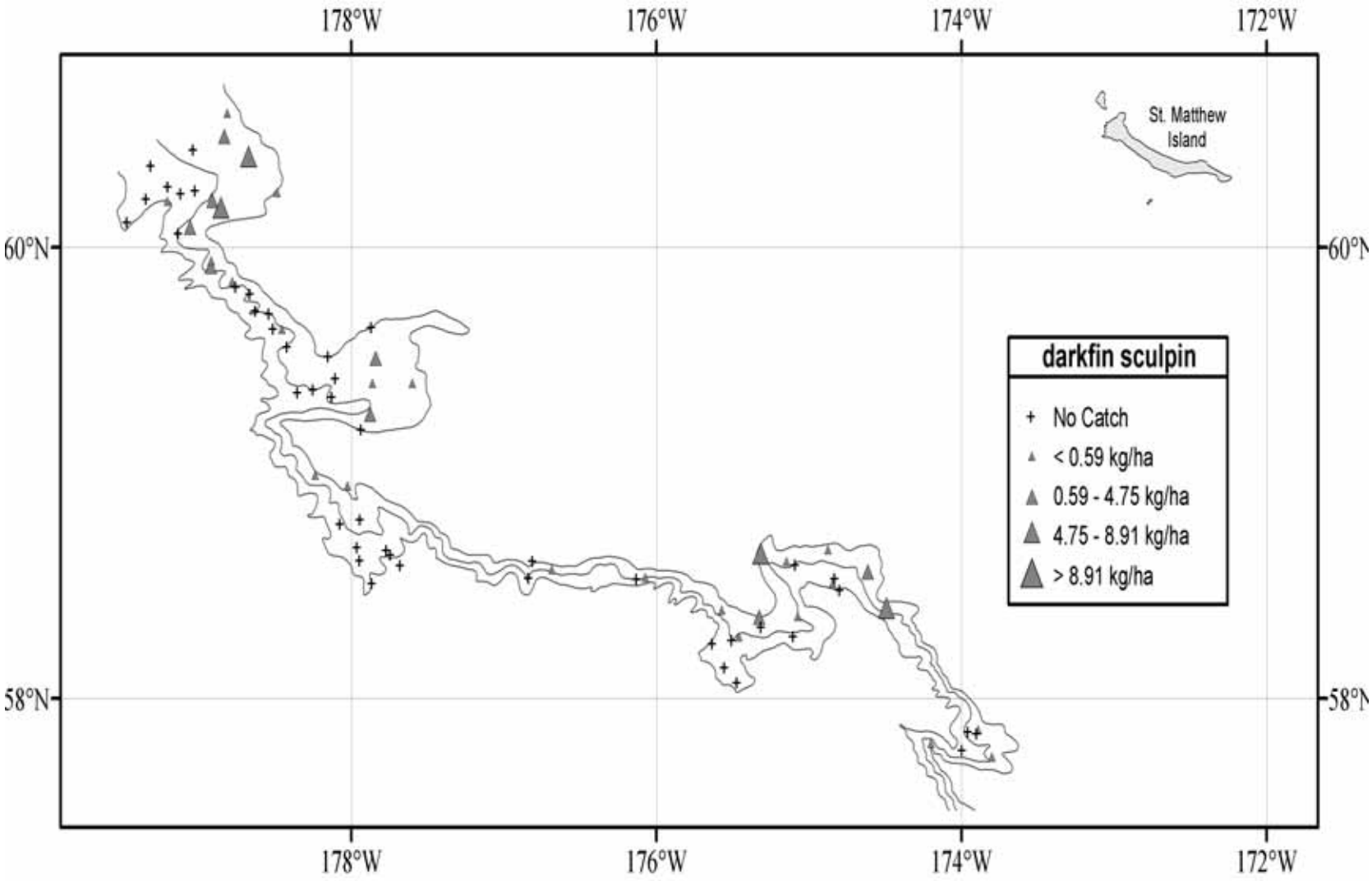

Figure 47. Distribution and relative abundance of darkfin sculpin from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

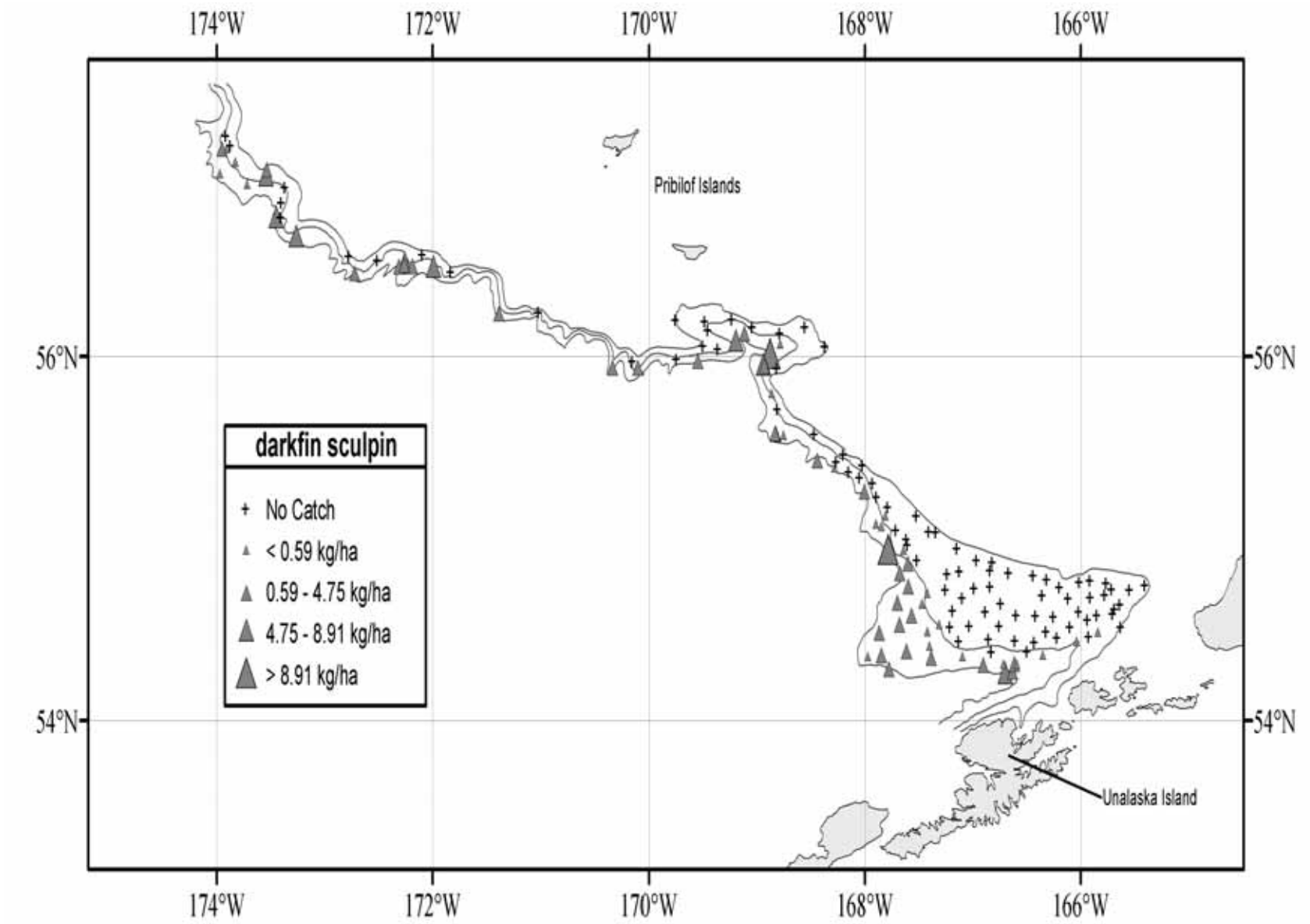

Figure 47. Continued.

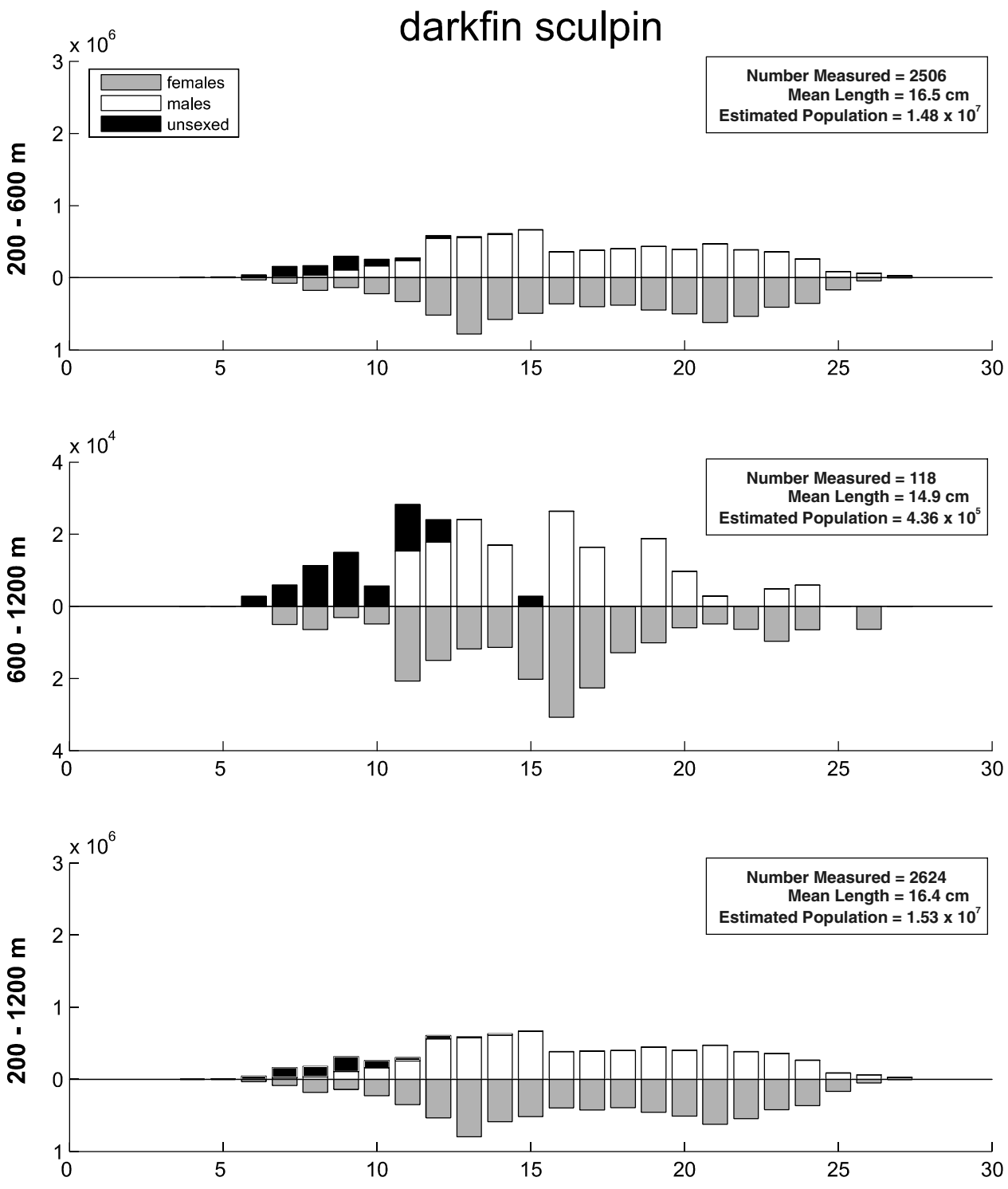

Figure 48. Size composition of the estimated darkfin sculpin population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 32. Abundance estimates by subarea and depth strata for blob sculpin (*Psychrolutes phrictus*) from the 2004 BSS survey.

Psychrolutes phrictus **blob sculpin**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	2.68E-01	3.52E+03	7.16E-02	1.24E+07	1.54E-03	2.02E-02
	800-1,000	1.39E+01	2.25E+04	1.80E+02	1.54E+08	1.02E-01	1.66E-01
	1,000-1,200	3.56E+02	9.04E+04	2.91E+04	8.38E+08	3.22E+00	8.16E-01
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	4.07E+01	1.10E+04	4.55E+02	3.16E+07	7.36E-01	1.99E-01
	1,000-1,200	1.07E+02	2.11E+04	1.44E+03	7.27E+07	1.99E+00	3.94E-01
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	2.23E+02	4.56E+04	3.44E+04	1.40E+09	2.45E+00	5.01E-01
	800-1,000	1.68E+02	3.72E+04	1.46E+04	5.45E+08	2.29E+00	5.08E-01
	1,000-1,200	2.01E+02	4.97E+04	4.27E+03	3.12E+08	2.98E+00	7.36E-01
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	1.18E+01	1.20E+05	8.13E+01	1.07E+10	1.66E-01	1.69E+00
	1,000-1,200	2.47E+02	1.03E+05	1.92E+04	1.85E+09	3.73E+00	1.55E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	1.26E-01	2.73E+03	1.58E-02	7.45E+06	2.91E-03	6.32E-02
	800-1,000	4.04E-01	3.15E+04	7.75E-02	1.30E+08	7.32E-03	5.71E-01
	1,000-1,200	6.08E+01	5.87E+04	1.99E+01	1.29E+06	1.07E+00	1.03E+00
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	1.52E+00	5.67E+03	2.31E+00	3.21E+07	3.06E-02	1.14E-01
All Areas and Depths Combined		**1.43E+03**	**6.02E+05**	**1.04E+05**	**1.61E+10**	**3.72E-01**	**1.46E-01**

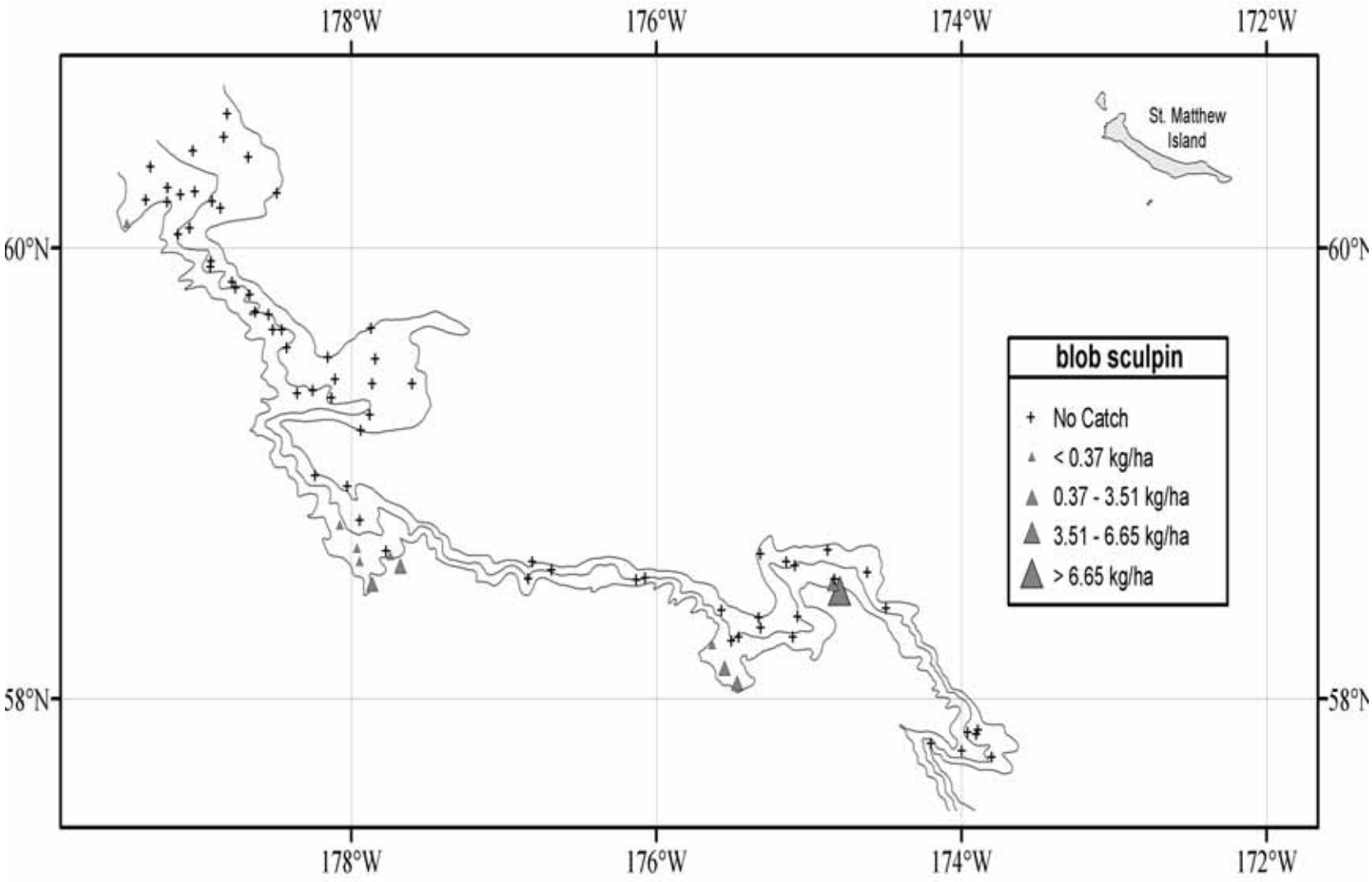

Figure 49. Distribution and relative abundance of blob sculpin from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

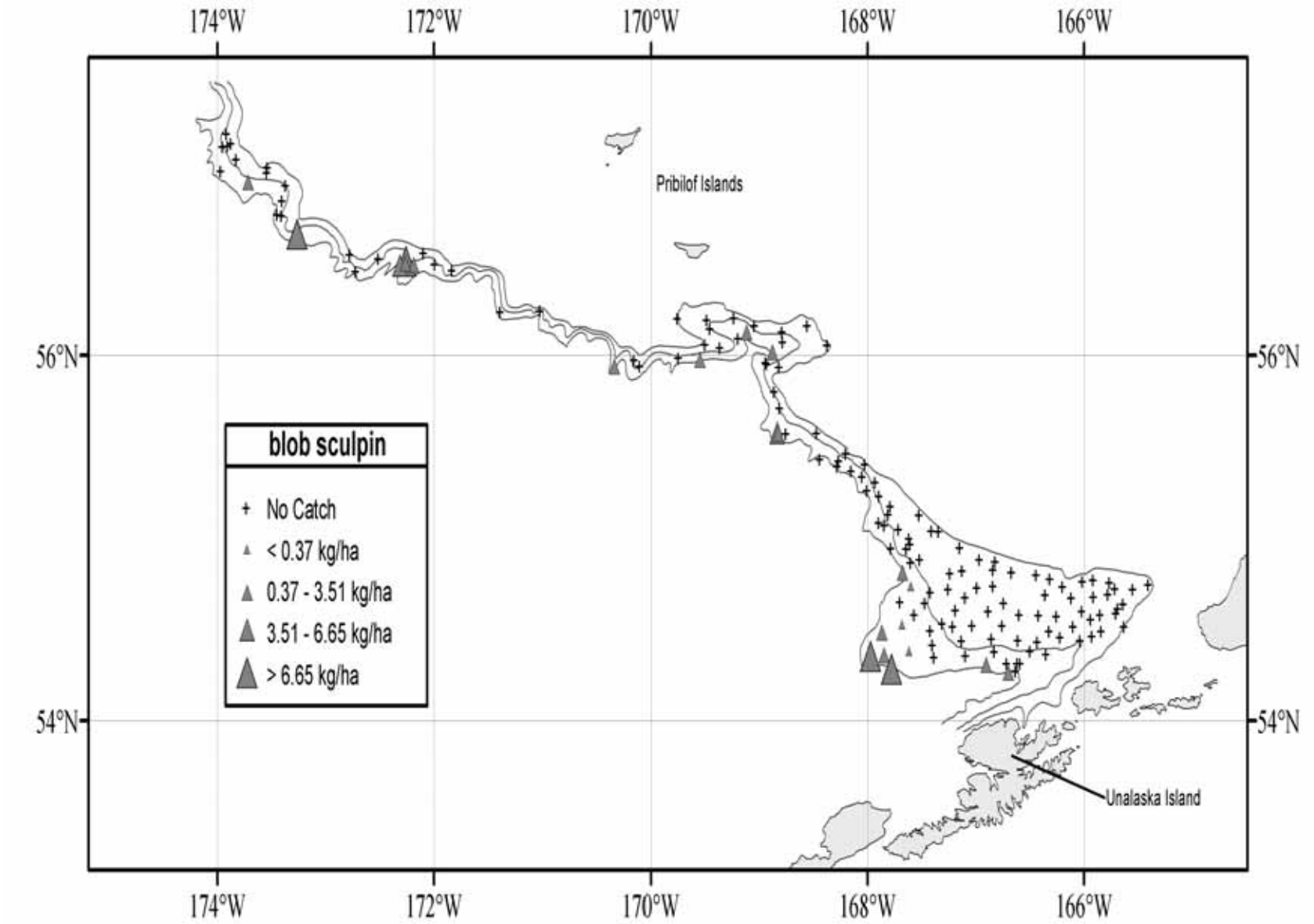

Figure 49. Continued.

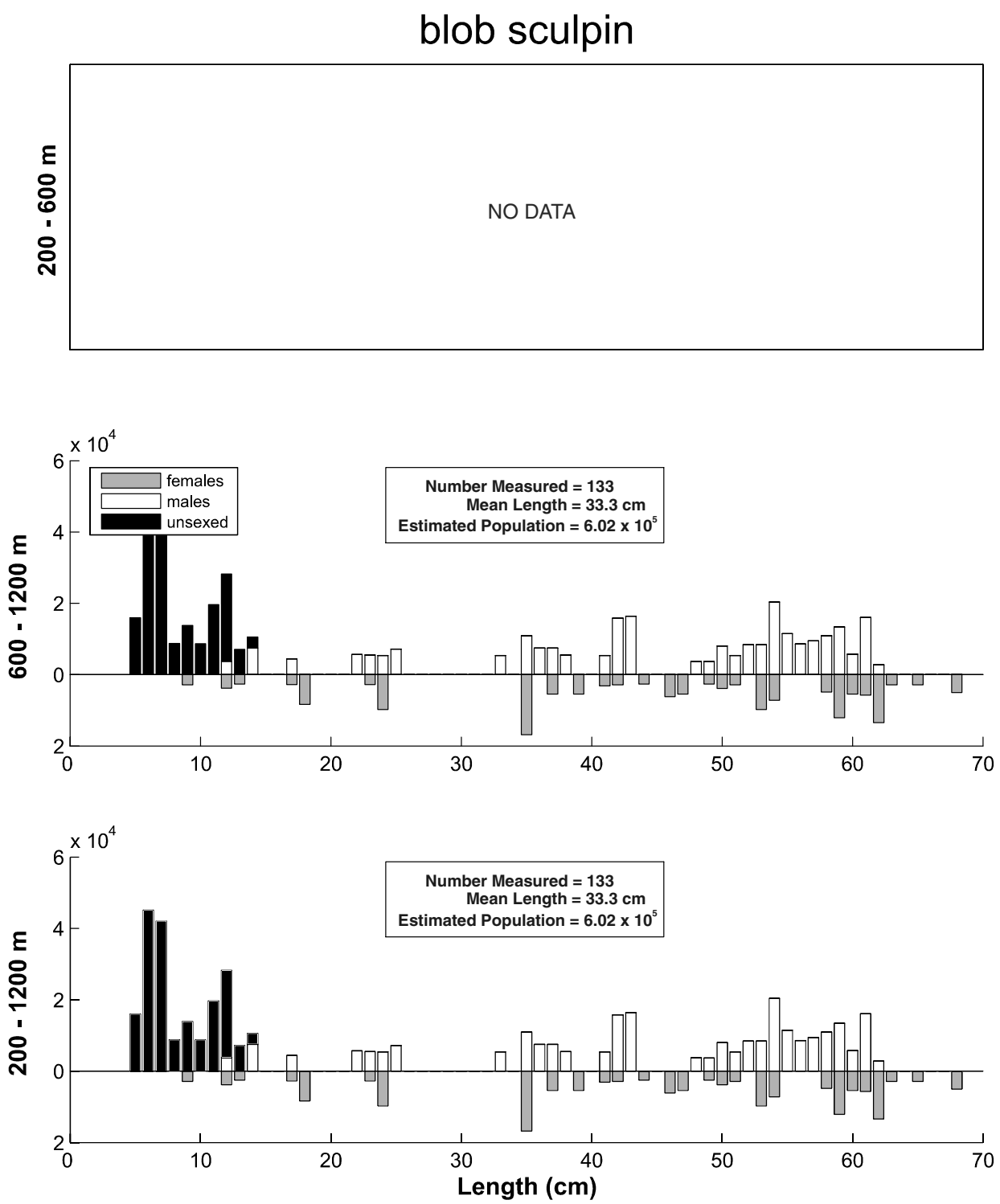

Figure 50. Size composition of the estimated blob sculpin population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 33. Abundance estimates by subarea and depth strata for blacktail snailfish (*Careproctus melanurus*) from the 2004 BSS survey.

Careproctus melanurus **blacktail snailfish**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.88E+01	3.11E+04	1.24E+02	1.13E+08	7.09E-02	7.66E-02
	600-800	9.47E+01	1.35E+05	1.35E+03	1.72E+09	5.44E-01	7.72E-01
	800-1,000	2.74E+01	1.12E+05	2.50E+02	4.35E+09	2.02E-01	8.25E-01
	1,000-1,200	1.55E+00	2.91E+03	2.41E+00	8.45E+06	1.40E-02	2.63E-02
2	200-400	1.86E+01	1.20E+04	3.44E+02	1.43E+08	1.60E-01	1.03E-01
	400-600	1.90E+01	1.60E+04	8.29E+01	5.55E+07	2.70E-01	2.27E-01
	600-800	3.80E+01	3.97E+04	3.64E+02	2.92E+08	6.43E-01	6.71E-01
	800-1,000	7.16E+00	5.89E+04	4.17E+01	2.03E+09	1.30E-01	1.07E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	4.17E+01	4.87E+04	1.14E+03	1.56E+09	4.70E-01	5.49E-01
	600-800	2.85E+01	1.14E+05	8.70E+01	1.83E+09	3.13E-01	1.25E+00
	800-1,000	7.70E+00	1.79E+04	1.40E+01	5.05E+07	1.05E-01	2.44E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	1.13E+01	7.44E+03	1.29E+02	5.54E+07	9.18E-02	6.02E-02
	400-600	8.59E+00	7.40E+03	7.38E+01	5.47E+07	1.18E-01	1.01E-01
	600-800	4.07E+01	4.01E+04	1.53E+03	1.20E+09	5.87E-01	5.77E-01
	800-1,000	3.01E+01	3.88E+04	8.22E+02	1.11E+09	4.25E-01	5.49E-01
	1,000-1,200	9.79E-01	4.99E+03	9.58E-01	2.49E+07	1.48E-02	7.54E-02
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.16E+01	8.25E+03	3.48E+01	1.86E+07	2.72E-01	1.94E-01
	600-800	1.75E+00	1.40E+04	2.16E+00	7.19E+07	4.06E-02	3.25E-01
	800-1,000	2.01E+00	1.81E+04	3.36E+00	1.30E+08	3.64E-02	3.28E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	3.88E+01	6.23E+04	5.66E+02	1.59E+09	4.23E-01	6.79E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**4.59E+02**	**7.88E+05**	**6.96E+03**	**1.64E+10**	**1.40E-01**	**2.29E-01**

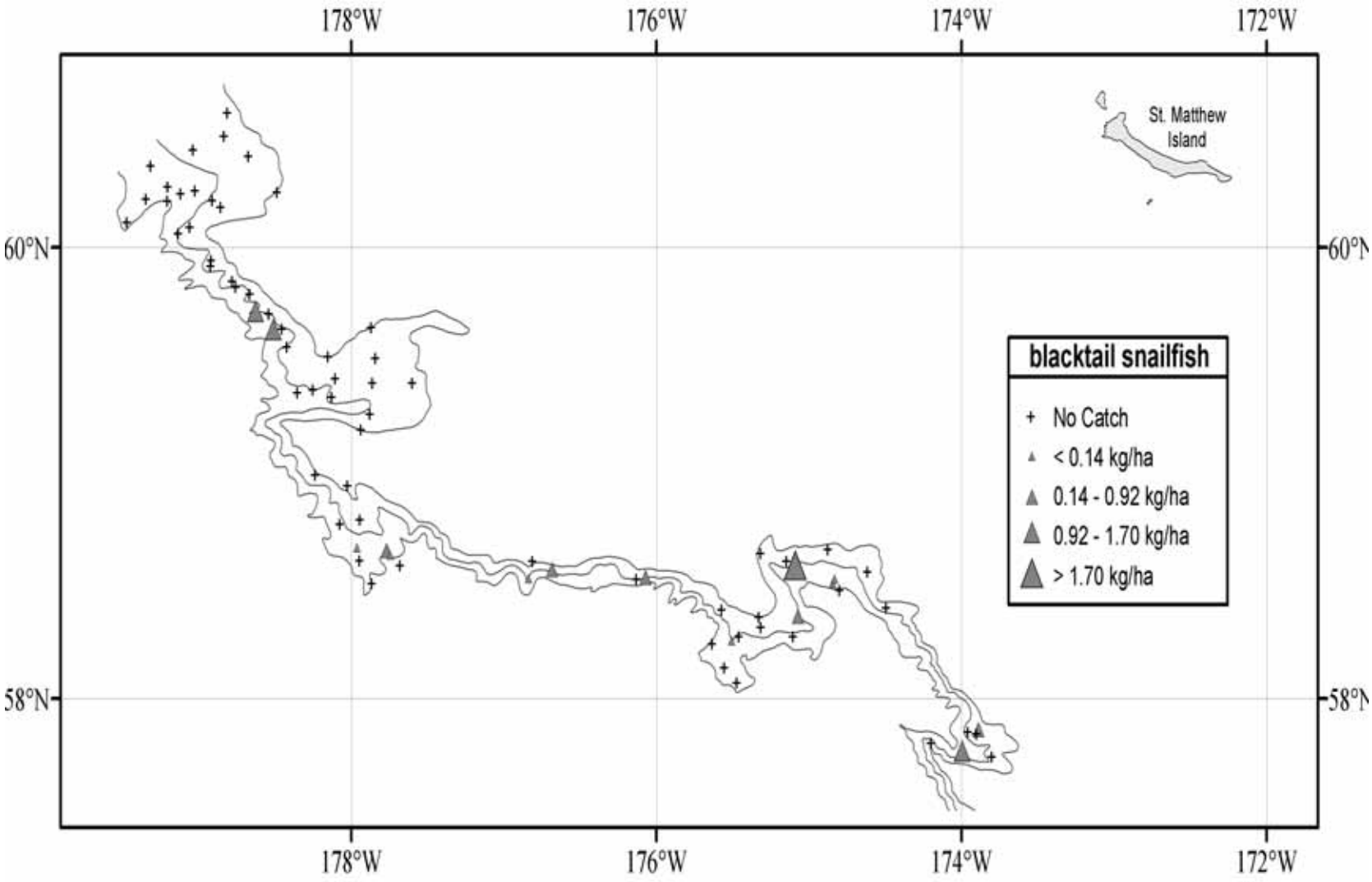

Figure 51. Distribution and relative abundance of blacktail snailfish from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

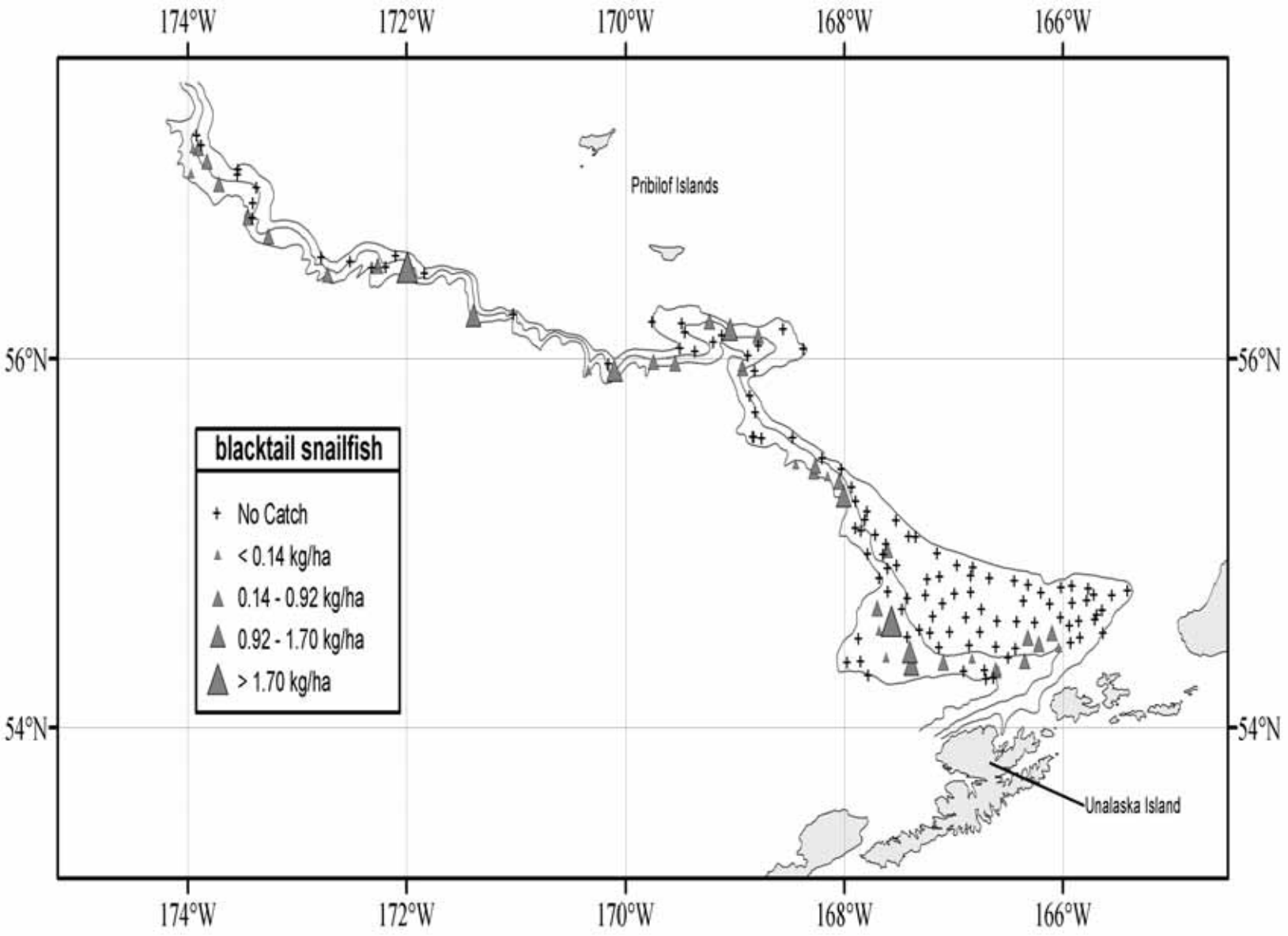

Figure 51. Continued.

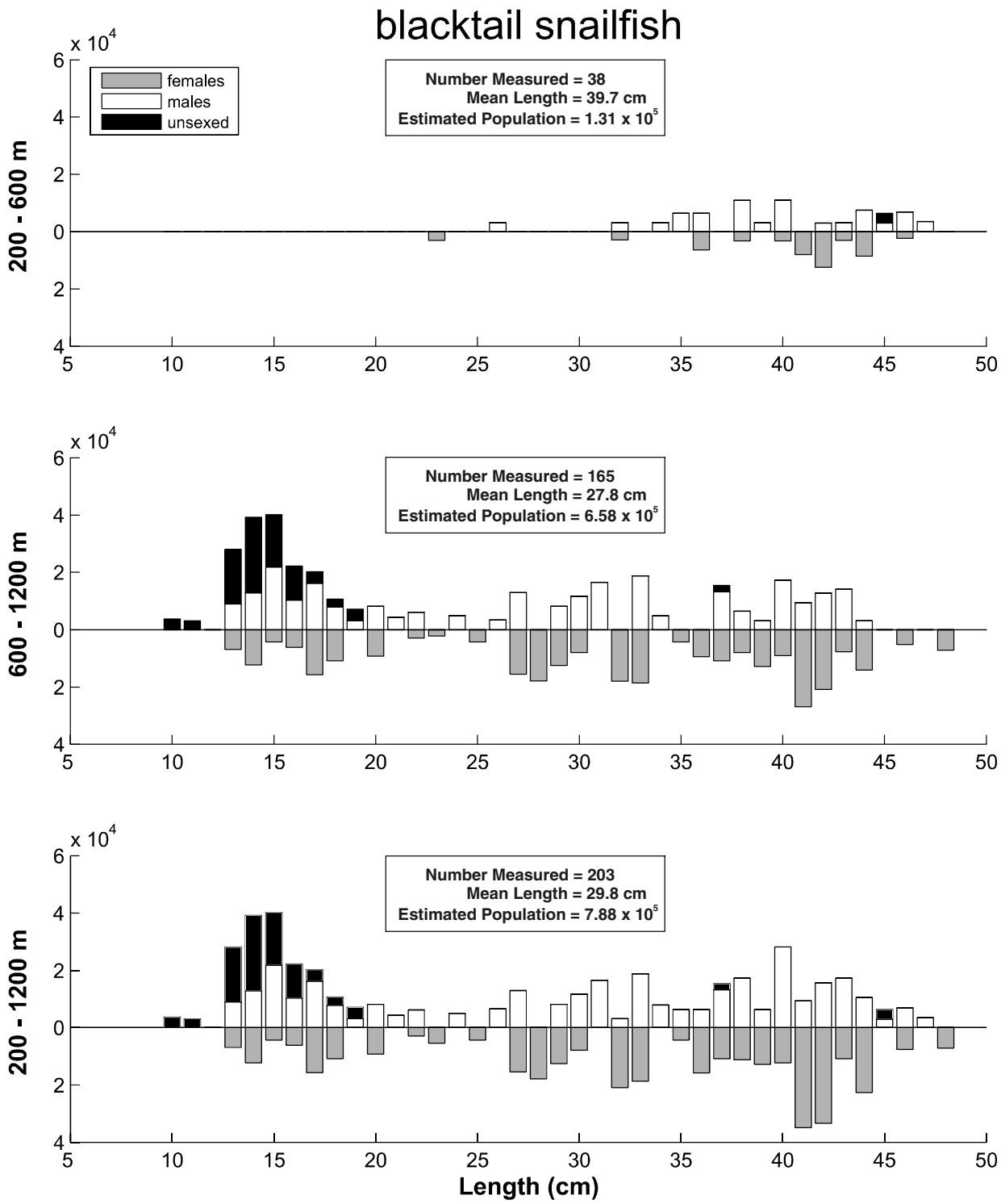

Figure 52. Size composition of the estimated blacktail snailfish population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 34. Abundance estimates by subarea and depth strata for black eelpout (*Lycodes diapterus*) from the 2004 BSS survey.

Lycodes diapterus **black eelpout**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.79E+01	2.44E+05	4.62E+01	8.80E+09	4.45E-02	6.08E-01
	400-600	1.17E+02	2.06E+06	3.70E+02	8.38E+10	2.87E-01	5.07E+00
	600-800	2.13E+01	5.61E+05	2.83E+01	1.85E+10	1.22E-01	3.22E+00
	800-1,000	2.54E+01	7.18E+05	1.05E+02	9.72E+10	1.87E-01	5.30E+00
	1,000-1,200	3.69E+00	1.06E+05	2.47E+00	2.25E+09	3.34E-02	9.62E-01
2	200-400	4.11E+00	5.10E+04	3.36E+00	4.54E+08	3.55E-02	4.41E-01
	400-600	1.55E+01	3.13E+05	3.00E+01	9.77E+09	2.20E-01	4.44E+00
	600-800	1.38E+00	2.42E+04	1.81E-01	6.28E+07	2.33E-02	4.10E-01
	800-1,000	7.64E+00	1.63E+05	1.48E+01	6.69E+09	1.38E-01	2.95E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	5.44E-01	7.55E+03	2.96E-01	5.70E+07	6.02E-03	8.36E-02
	400-600	5.57E+00	8.00E+04	2.62E+00	5.31E+08	6.29E-02	9.03E-01
	600-800	7.52E+00	1.33E+05	4.26E+00	1.28E+09	8.26E-02	1.46E+00
	800-1,000	2.62E-02	4.36E+03	6.84E-04	1.90E+07	3.57E-04	5.95E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	2.65E-01	3.78E+03	7.01E-02	1.43E+07	2.14E-03	3.06E-02
	400-600	1.07E+00	1.48E+04	2.52E-01	4.79E+07	1.47E-02	2.02E-01
	600-800	5.17E-01	9.23E+03	2.67E-01	8.52E+07	7.45E-03	1.33E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.02E+00	1.92E+04	7.73E-01	2.07E+08	2.39E-02	4.51E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	2.81E-01	5.01E+03	7.88E-02	2.51E+07	5.09E-03	9.08E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.67E+01	2.27E+05	3.95E+01	7.66E+09	6.42E-02	8.75E-01
	400-600	6.39E+01	9.30E+05	4.99E+02	9.83E+10	3.75E-01	5.45E+00
	600-800	2.42E+01	4.56E+05	1.42E+02	5.99E+10	2.64E-01	4.97E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**3.35E+02**	**6.13E+06**	**1.29E+03**	**3.96E+11**	**1.07E-01**	**1.96E+00**

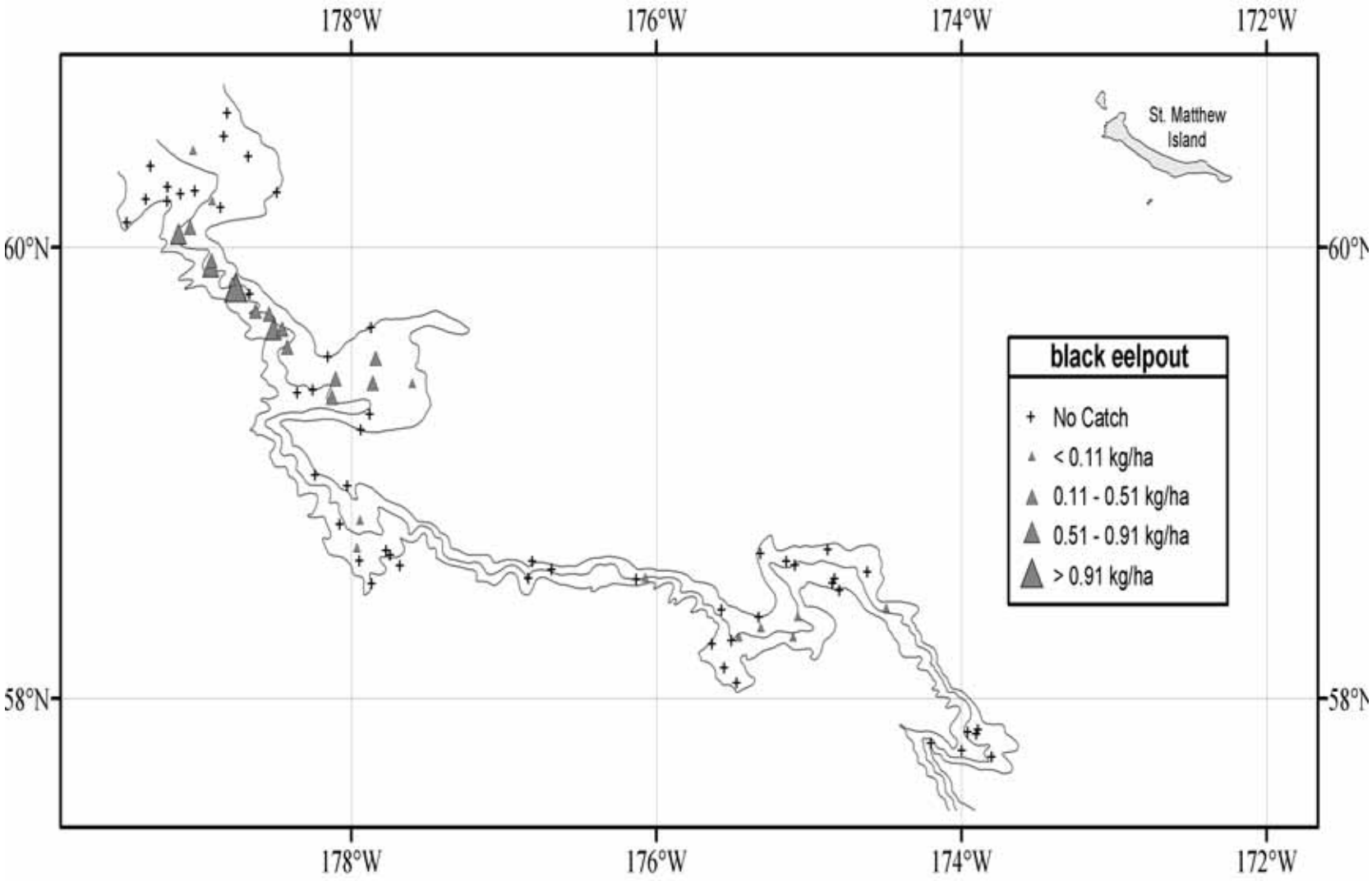

Figure 53. Distribution and relative abundance of black eelpout from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

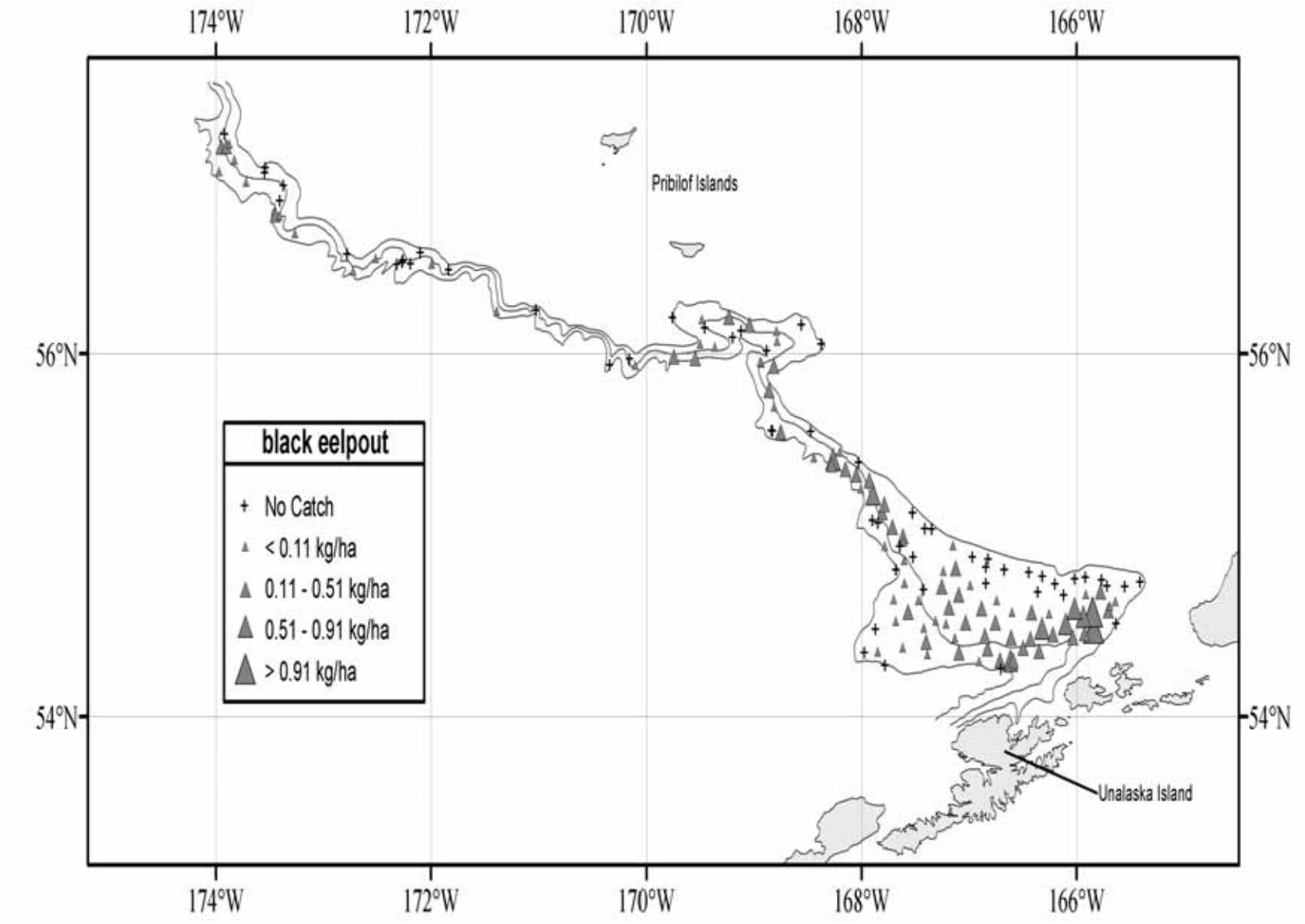

Figure 53. Continued.

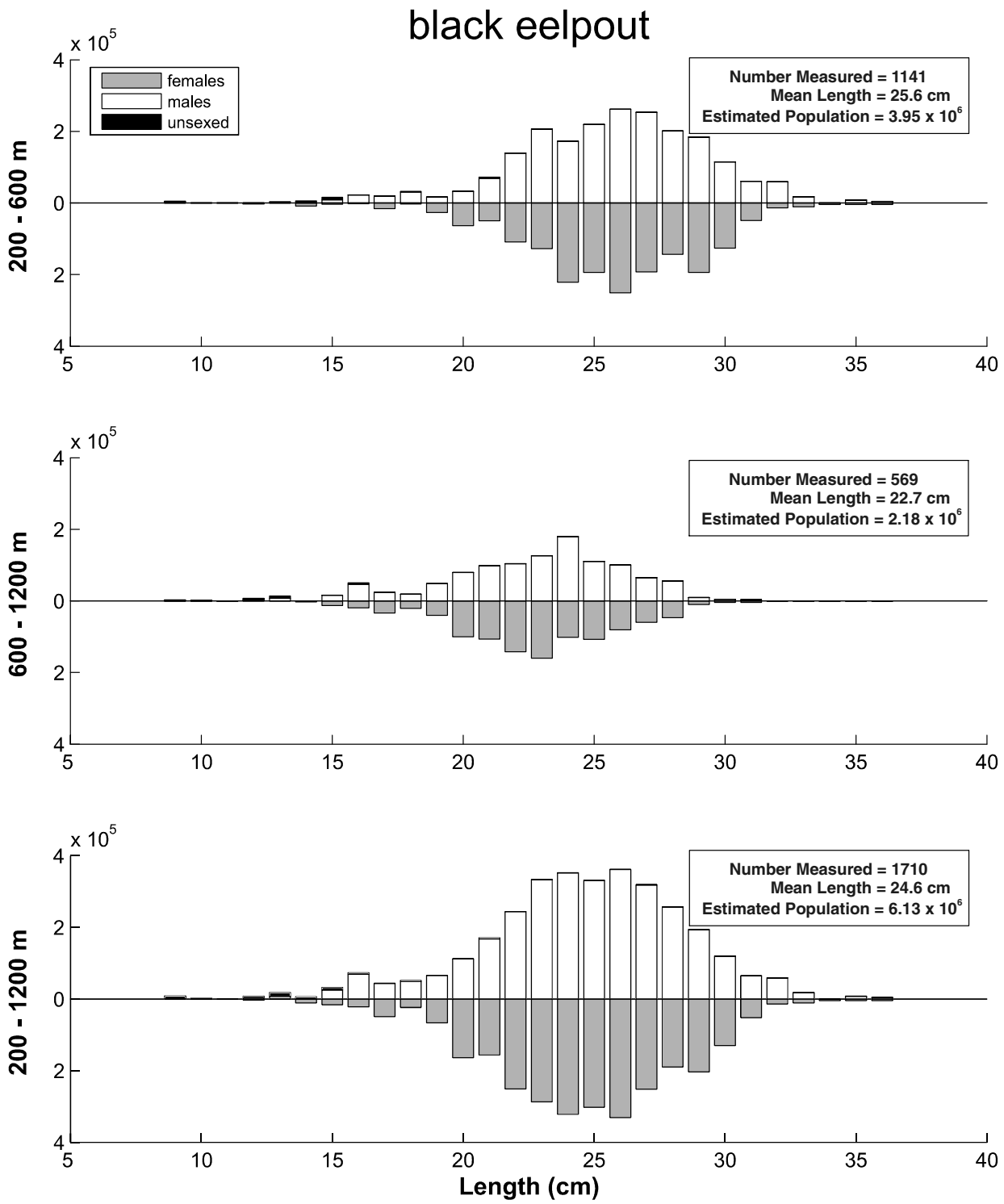

Figure 54. Size composition of the estimated black eelpout population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 35. Abundance estimates by subarea and depth strata for ebony eelpout (*Lycodes concolor*) from the 2004 BSS survey.

Lycodes concolor **ebony eelpout**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	5.77E+02	4.44E+05	2.67E+04	1.54E+10	1.42E+00	1.09E+00
	600-800	7.60E+01	9.21E+04	5.90E+02	8.59E+08	4.36E-01	5.29E-01
	800-1,000	3.33E+00	2.03E+04	1.11E+01	4.12E+08	2.46E-02	1.50E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	3.22E+02	1.58E+05	3.69E+04	7.88E+09	4.56E+00	1.59E+00
	600-800	6.26E+01	1.25E+05	3.37E+03	1.25E+10	1.06E+00	2.11E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	6.46E+01	1.74E+05	9.34E+02	7.42E+09	1.21E+00	3.25E+00
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	3.26E+01	5.07E+04	7.13E+02	1.76E+09	3.68E-01	5.73E-01
	600-800	9.62E+01	1.34E+05	1.68E+03	3.22E+09	1.06E+00	1.48E+00
	800-1,000	1.30E+00	7.48E+03	1.70E+00	5.60E+07	1.78E-02	1.02E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	4.73E+01	8.92E+04	1.74E+03	7.08E+09	6.48E-01	1.22E+00
	600-800	5.16E+02	6.02E+05	1.86E+05	2.20E+11	7.43E+00	8.67E+00
	800-1,000	5.92E-01	4.94E+03	3.51E-01	2.44E+07	8.37E-03	6.98E-02
	1,000-1,200	1.21E+00	5.42E+03	1.48E+00	2.94E+07	1.83E-02	8.19E-02
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.55E+01	3.24E+04	3.22E+02	6.52E+08	5.99E-01	7.62E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	5.03E+00	8.84E+03	1.19E+01	3.64E+07	1.94E-02	3.41E-02
	400-600	3.16E+02	4.56E+05	2.61E+04	5.01E+10	1.85E+00	2.68E+00
	600-800	3.08E+01	5.85E+04	9.48E+02	3.42E+09	3.36E-01	6.37E-01
	800-1,000	3.87E+00	1.66E+04	1.30E+01	1.71E+08	5.99E-02	2.57E-01
	1,000-1,200	3.57E+00	1.91E+04	1.27E+01	3.65E+08	7.18E-02	3.85E-01
All Areas and Depths Combined		**2.19E+03**	**2.50E+06**	**2.86E+05**	**3.31E+11**	**6.21E-01**	**7.55E-01**

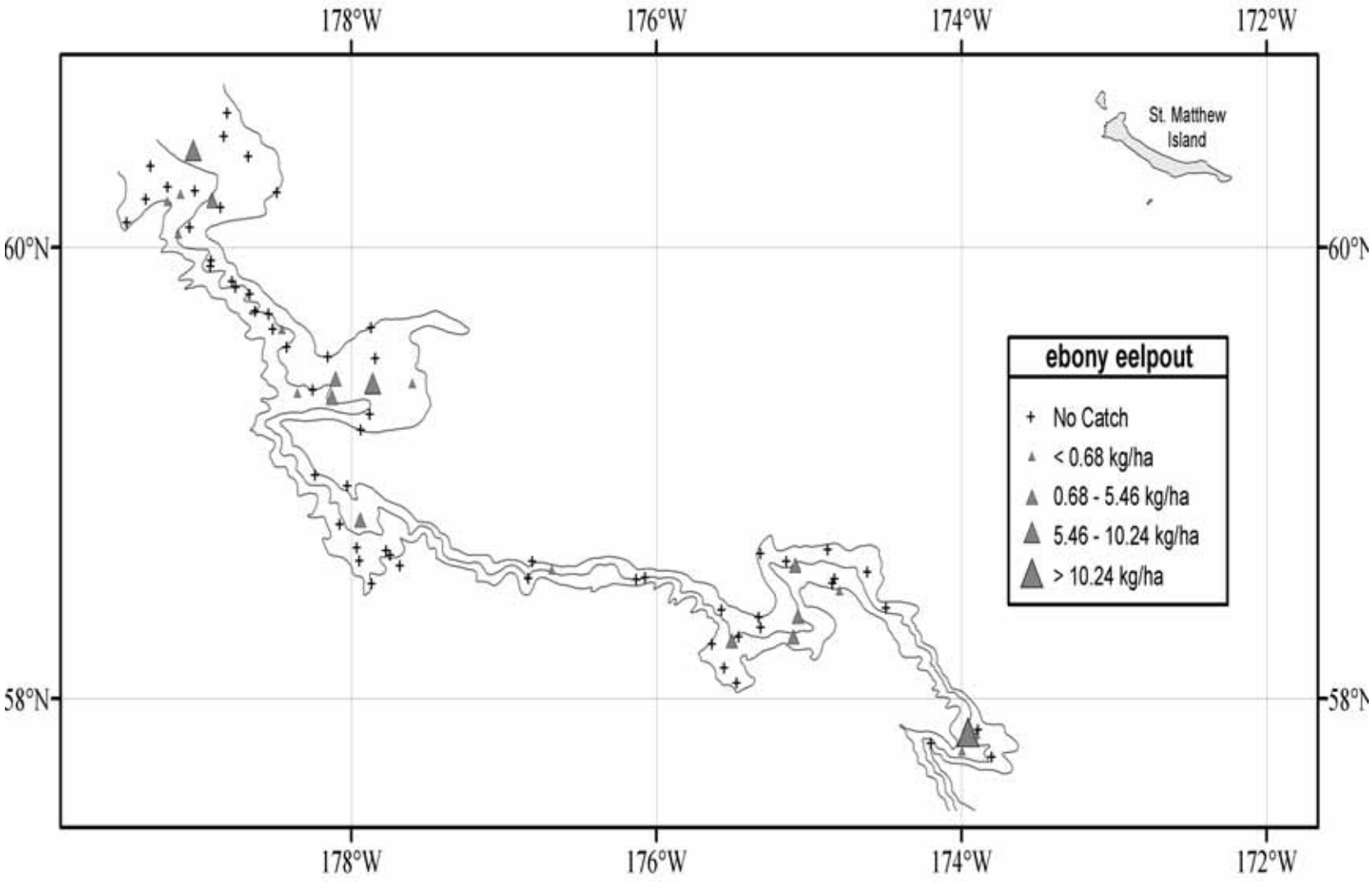

Figure 55. Distribution and relative abundance of ebony eelpout from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

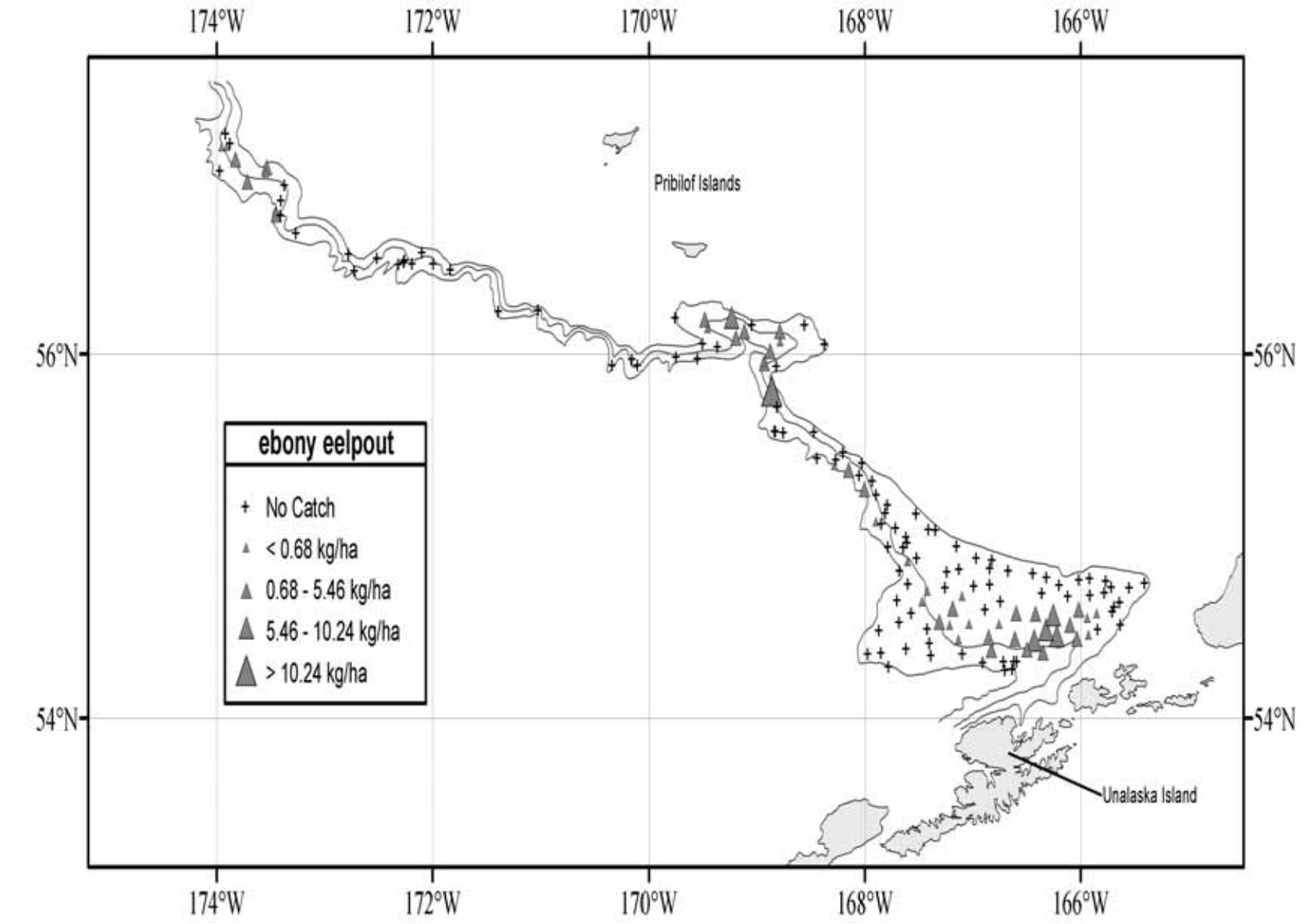

Figure 55. Continued.

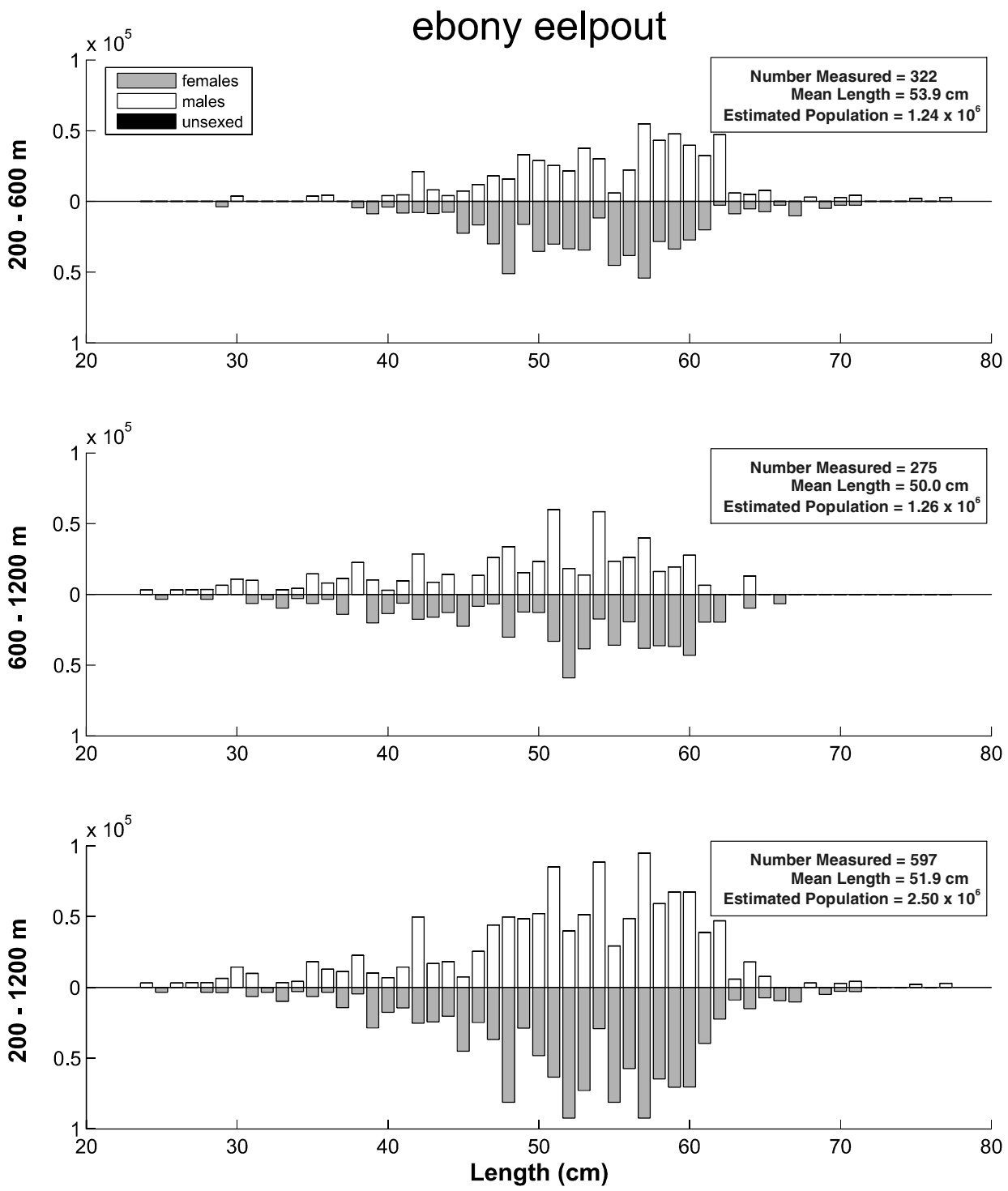

Figure 56. Size composition of the estimated ebony eelpout population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 36. Abundance estimates by subarea and depth strata for twoline eelpout group (*Bothrocara brunneum* and cf. *B. brunneum*) from the 2004 BSS survey.

***Bothrocara* cf. *brunneum* group** **twoline eelpout group**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.14E+01	8.83E+03	7.79E+01	4.36E+07	9.49E-03	7.34E-03
	400-600	1.07E+04	1.08E+07	8.34E+06	8.05E+12	8.82E+00	8.82E+00
	600-800	4.54E+03	7.01E+06	1.89E+06	4.41E+12	8.70E+00	1.34E+01
	800-1,000	1.14E+03	2.09E+06	3.04E+05	9.83E+11	2.79E+00	5.14E+00
	1,000-1,200	9.88E+01	9.42E+05	1.00E+03	1.28E+11	2.98E-01	2.84E+00
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.60E+02	5.73E+05	5.11E+04	3.11E+11	1.23E+00	2.71E+00
	600-800	1.62E+02	9.07E+05	5.67E+03	4.40E+11	9.11E-01	5.11E+00
	800-1,000	6.81E+01	1.82E+05	1.01E+03	1.28E+10	4.11E-01	1.10E+00
	1,000-1,200	1.75E+02	1.32E+06	6.08E+03	6.31E+11	1.09E+00	8.20E+00
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.38E+02	1.20E+05	2.83E+03	4.35E+09	5.19E-01	4.51E-01
	600-800	1.23E+02	8.28E+04	4.42E+03	1.38E+09	4.50E-01	3.03E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	1.78E+00	8.02E+03	3.17E+00	6.43E+07	8.78E-03	3.96E-02
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.89E+02	1.26E+05	8.77E+03	4.90E+09	8.63E-01	5.74E-01
	600-800	1.36E+02	6.50E+04	3.29E+03	9.27E+08	6.54E-01	3.12E-01
	800-1,000	7.35E+01	6.10E+04	1.53E+03	1.16E+09	3.46E-01	2.87E-01
	1,000-1,200	1.02E+00	1.63E+04	1.04E+00	2.65E+08	5.13E-03	8.19E-02
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.33E+02	1.15E+05	9.06E+03	2.74E+09	1.82E+00	9.00E-01
	600-800	3.11E+01	3.25E+04	9.65E+02	6.62E+08	2.40E-01	2.51E-01
	800-1,000	5.11E+00	4.45E+03	2.61E+01	1.98E+07	3.08E-02	2.69E-02
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.69E+02	1.55E+05	5.07E+03	4.10E+09	3.29E-01	3.03E-01
	600-800	2.79E+02	2.78E+05	5.09E+04	4.91E+10	1.01E+00	1.01E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.86E+04**	**2.48E+07**	**1.07E+07**	**1.50E+13**	**2.25E+00**	**2.97E+00**

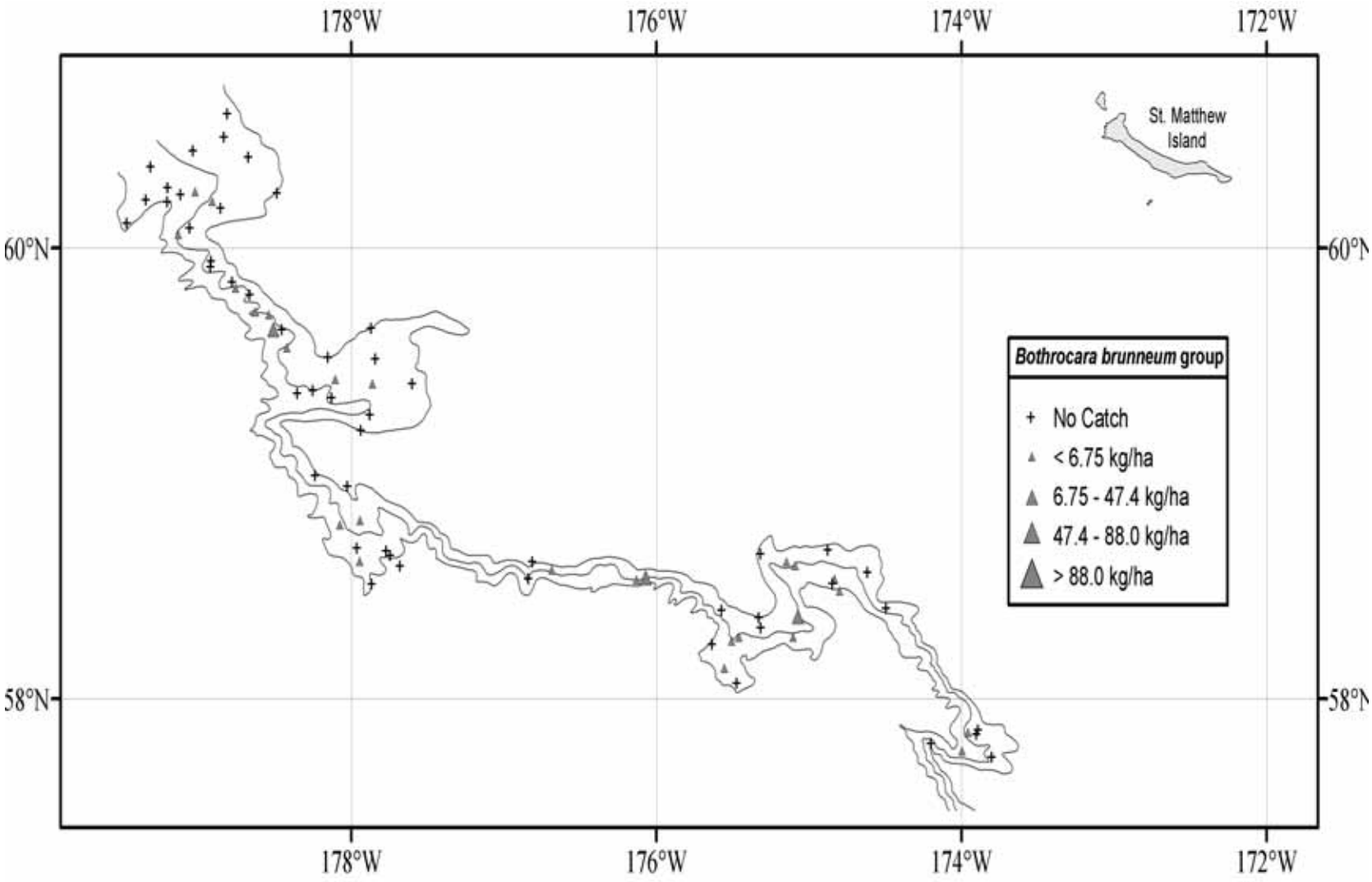

Figure 57. Distribution and relative abundance of the *Bothrocara brunneum* group from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

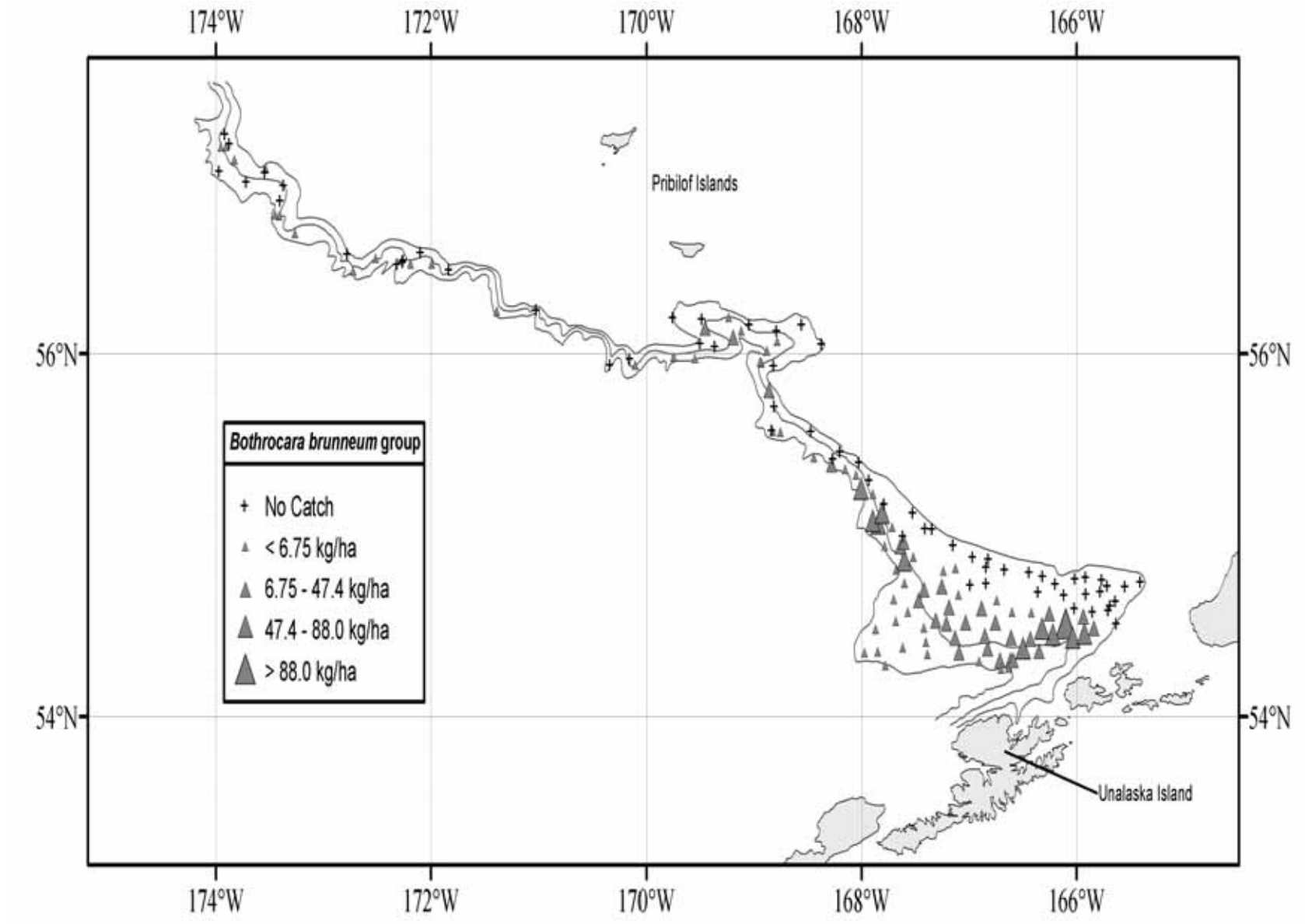

Figure 57. Continued.

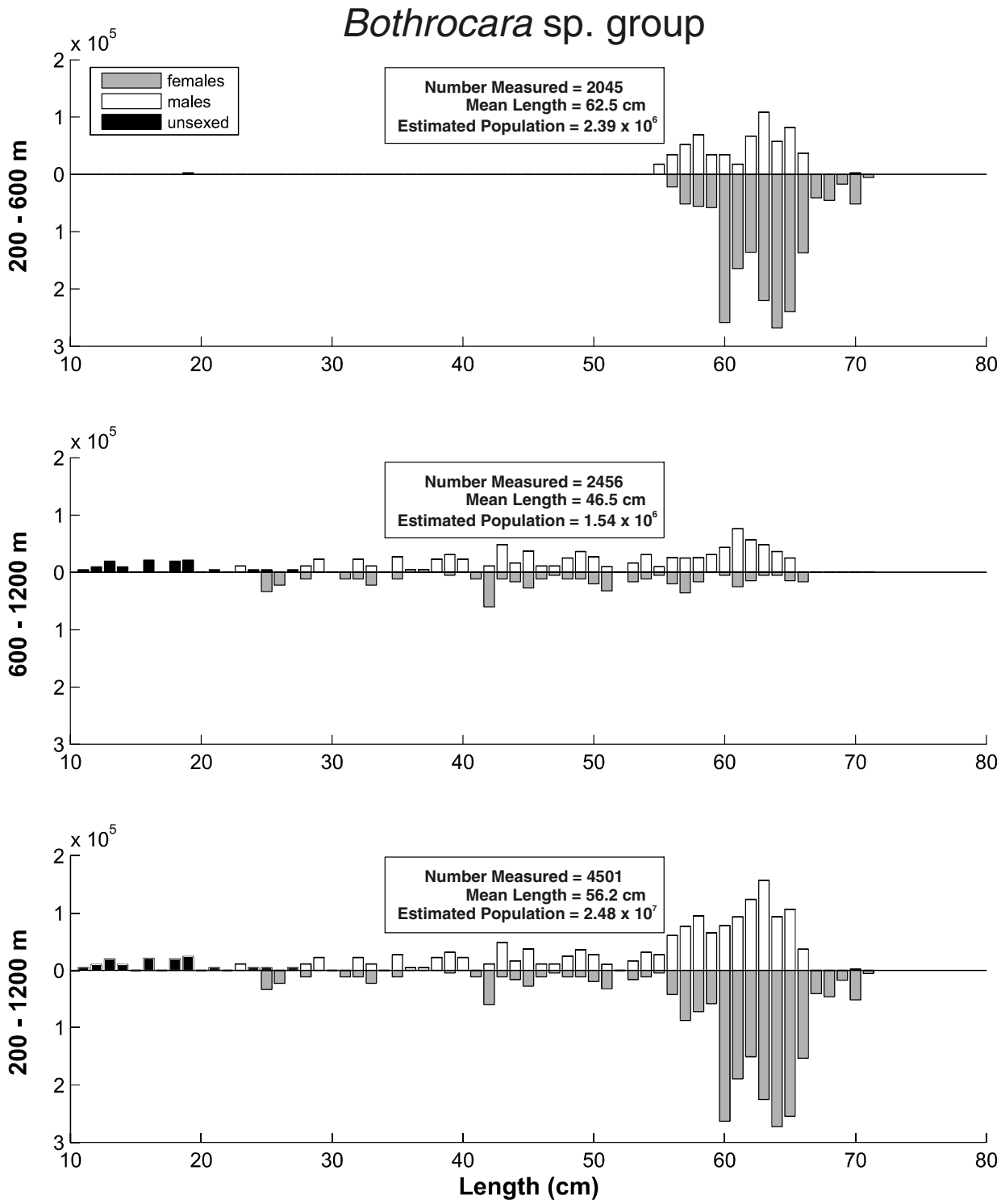

Figure 58. Size composition of the estimated *Bothrocara brunneum* group population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 37. Abundance estimates by subarea and depth strata for Pacific halibut (*Hippoglossus stenolepis*) from the 2004 BSS survey.

Hippoglossus stenolepis **Pacific halibut**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	8.14E+02	1.04E+05	7.27E+04	9.88E+08	2.03E+00	2.59E-01
	400-600	1.04E+03	7.01E+04	1.17E+05	5.26E+08	2.55E+00	1.72E-01
	600-800	1.69E+02	9.55E+03	1.82E+04	5.02E+07	9.70E-01	5.48E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.97E+02	2.13E+04	6.99E+03	6.89E+07	1.70E+00	1.84E-01
	400-600	5.28E+02	3.82E+04	8.02E+04	3.53E+08	7.49E+00	5.42E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	2.17E+02	2.13E+04	1.42E+04	1.14E+08	2.40E+00	2.36E-01
	400-600	6.32E+01	4.25E+03	3.99E+03	1.81E+07	7.13E-01	4.80E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	9.08E+02	6.36E+04	2.28E+05	1.13E+09	7.35E+00	5.14E-01
	400-600	1.90E+02	8.29E+03	3.61E+04	6.88E+07	2.60E+00	1.14E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	6.07E+01	1.70E+04	3.21E+02	1.91E+07	1.43E+00	4.01E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	3.47E+02	7.03E+04	1.70E+04	5.34E+08	1.34E+00	2.71E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**4.53E+03**	**4.28E+05**	**5.95E+05**	**3.87E+09**	**1.53E+00**	**1.41E-01**

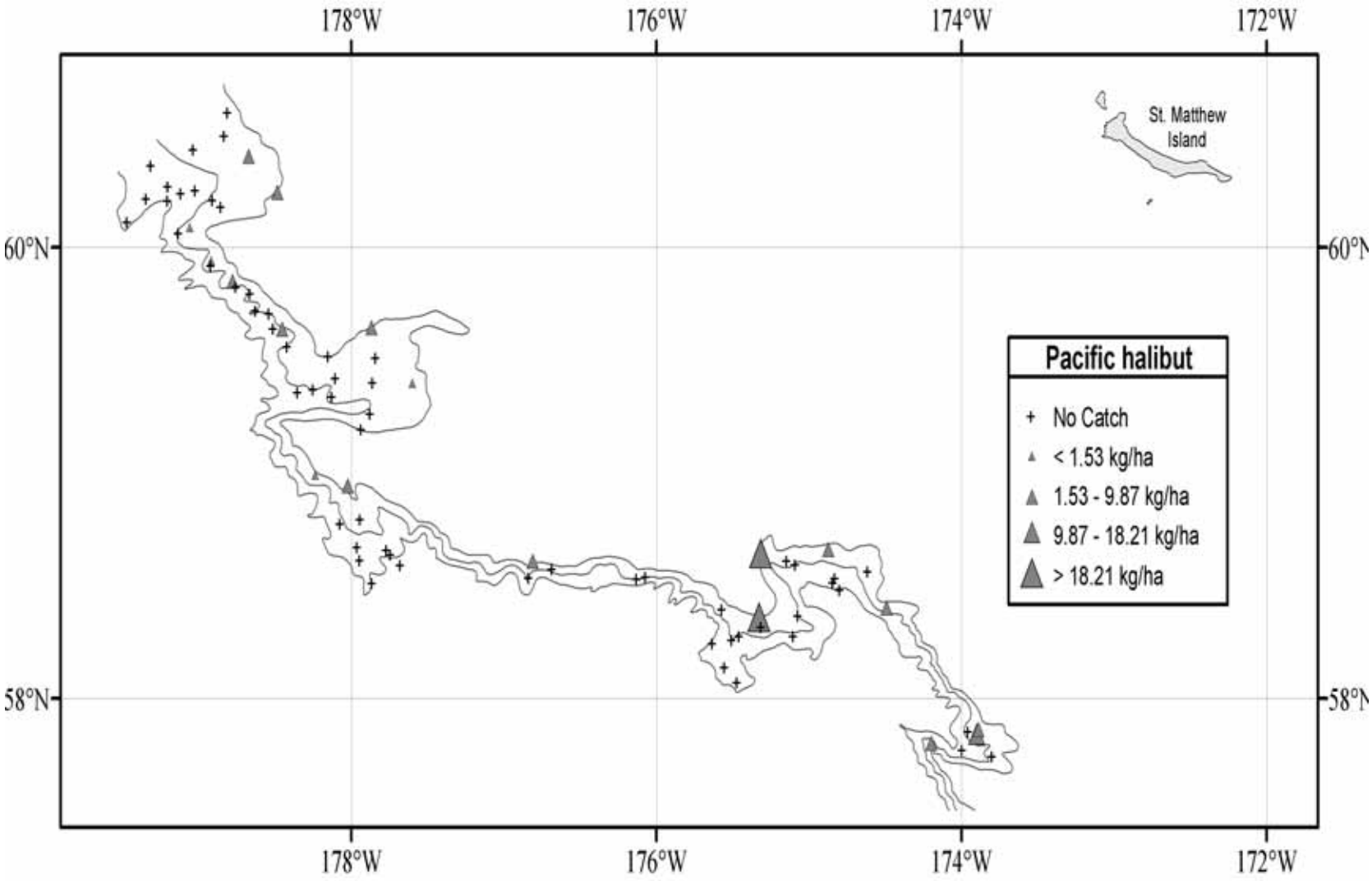

Figure 59. Distribution and relative abundance of Pacific halibut from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

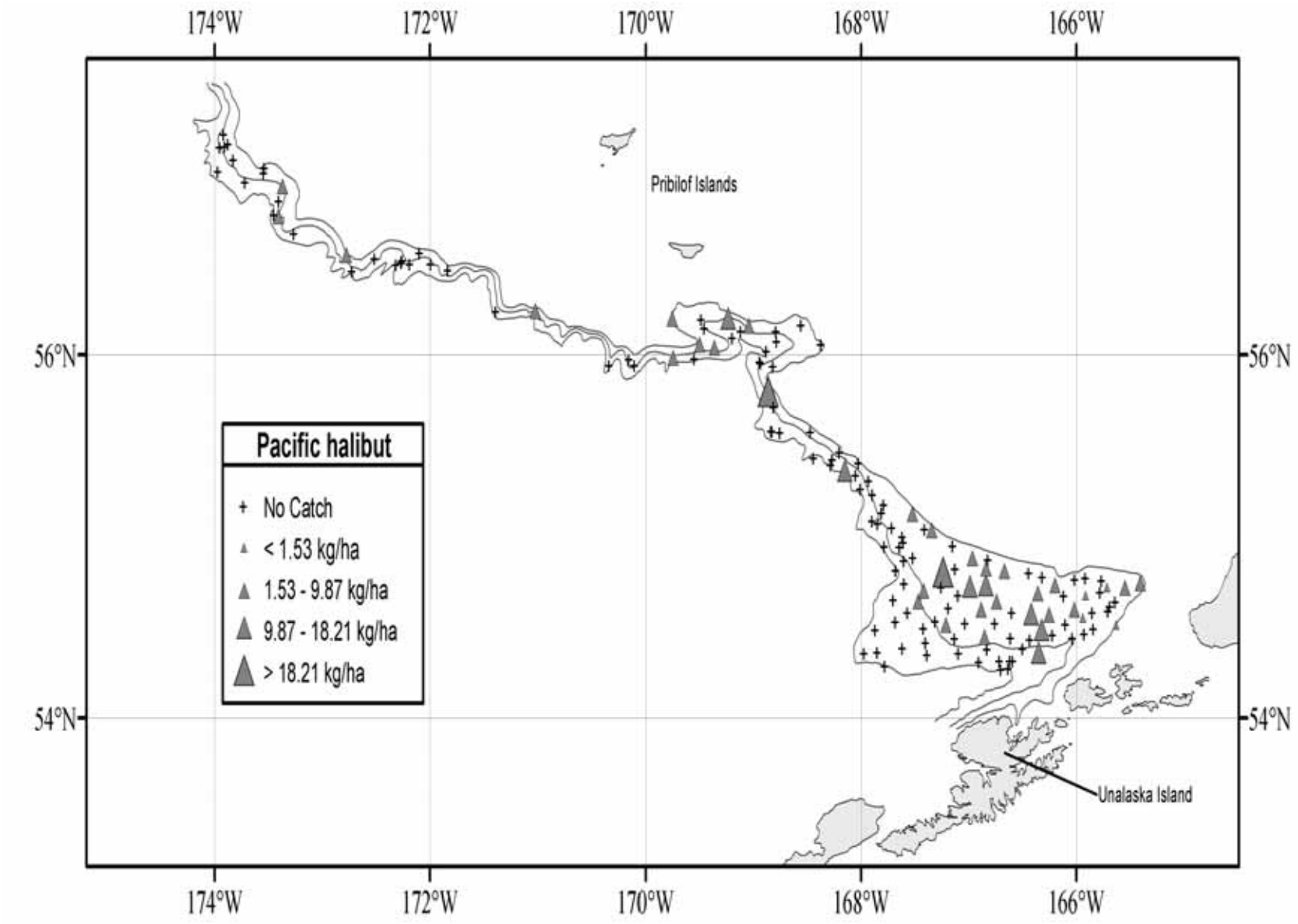

Figure 59. Continued.

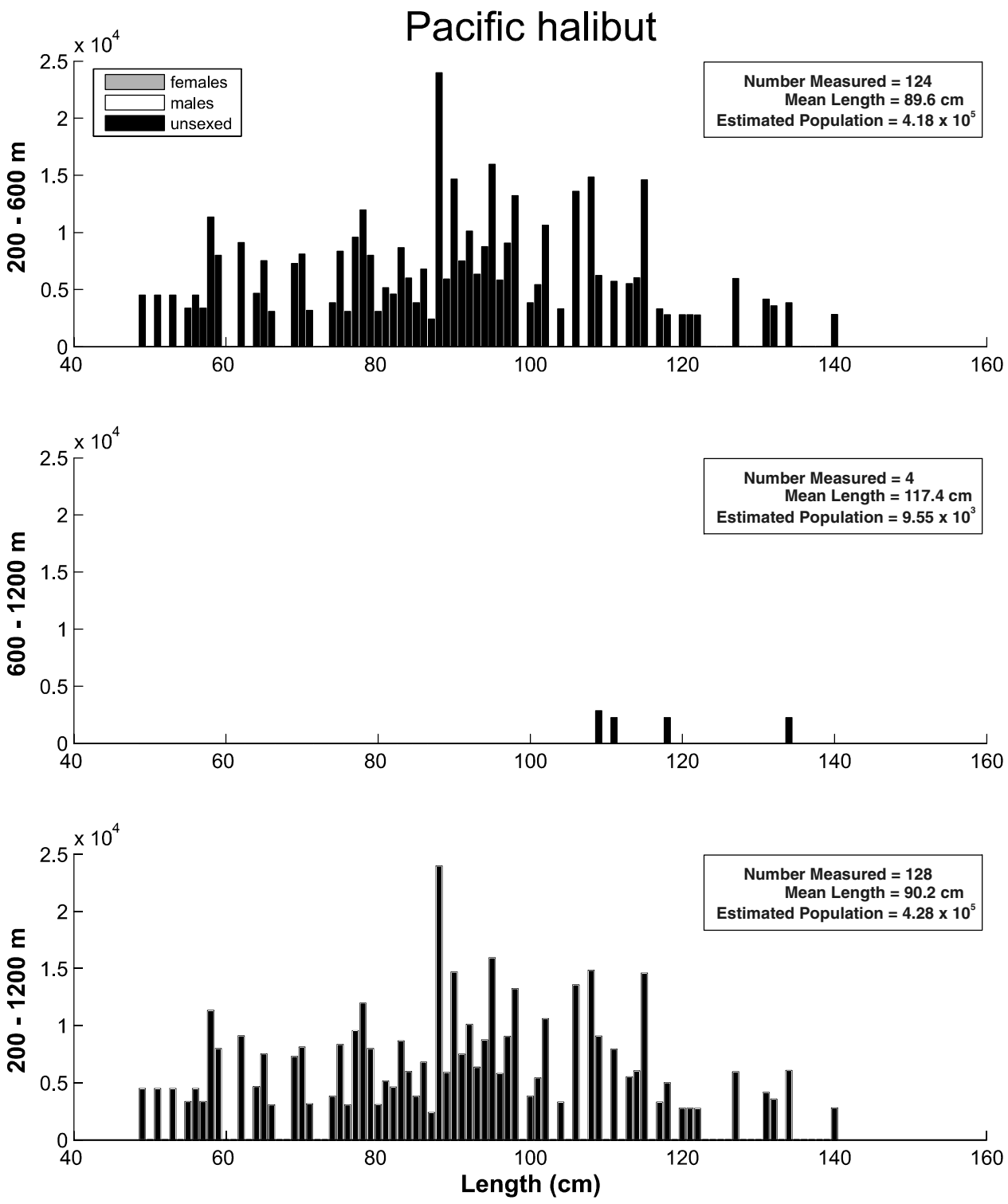

Figure 60. Size composition of the estimated Pacific halibut population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 38. Abundance estimates by subarea and depth strata for flathead sole (*Hippoglossoides elassodon*) from the 2004 BSS survey.

Hippoglossoides elassodon **flathead sole**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	5.74E+03	1.75E+07	8.32E+05	8.37E+12	1.43E+01	4.37E+01
	400-600	5.20E+03	7.46E+06	1.58E+06	3.69E+12	1.28E+01	1.84E+01
	600-800	3.12E+00	3.32E+03	9.72E+00	1.10E+07	1.79E-02	1.90E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	8.78E+02	2.58E+06	1.36E+05	1.85E+12	7.58E+00	2.23E+01
	400-600	2.26E+01	2.45E+04	2.51E+02	2.76E+08	3.20E-01	3.48E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	1.20E+03	2.40E+06	1.32E+05	4.14E+11	1.33E+01	2.66E+01
	400-600	1.96E+03	2.55E+06	6.56E+05	1.11E+12	2.21E+01	2.88E+01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	2.27E+03	5.01E+06	3.50E+05	2.01E+12	1.84E+01	4.05E+01
	400-600	7.44E+02	9.89E+05	2.36E+05	2.75E+11	1.02E+01	1.35E+01
	600-800	9.50E+00	8.80E+03	9.03E+01	7.74E+07	1.37E-01	1.27E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	1.04E+03	3.77E+06	4.60E+05	6.35E+12	2.46E+01	8.90E+01
	400-600	3.21E+02	6.61E+05	2.30E+04	1.03E+11	7.54E+00	1.55E+01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	2.21E+03	7.72E+06	5.76E+05	6.43E+12	8.51E+00	2.98E+01
	400-600	9.00E+02	1.87E+06	1.37E+05	5.91E+11	5.27E+00	1.10E+01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**2.25E+04**	**5.26E+07**	**5.12E+06**	**3.12E+13**	**7.55E+00**	**1.73E+01**

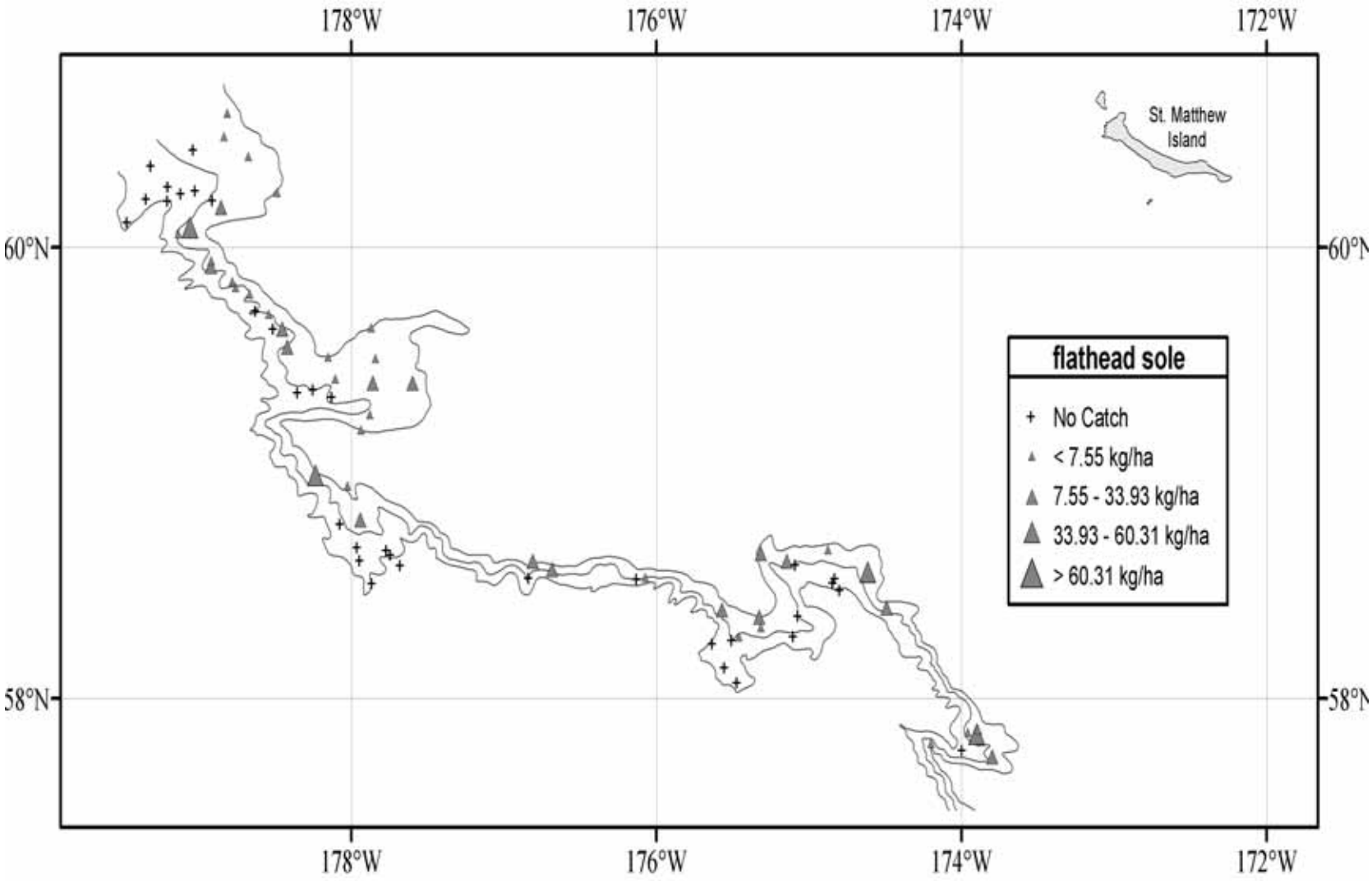

Figure 61. Distribution and relative abundance of flathead sole from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

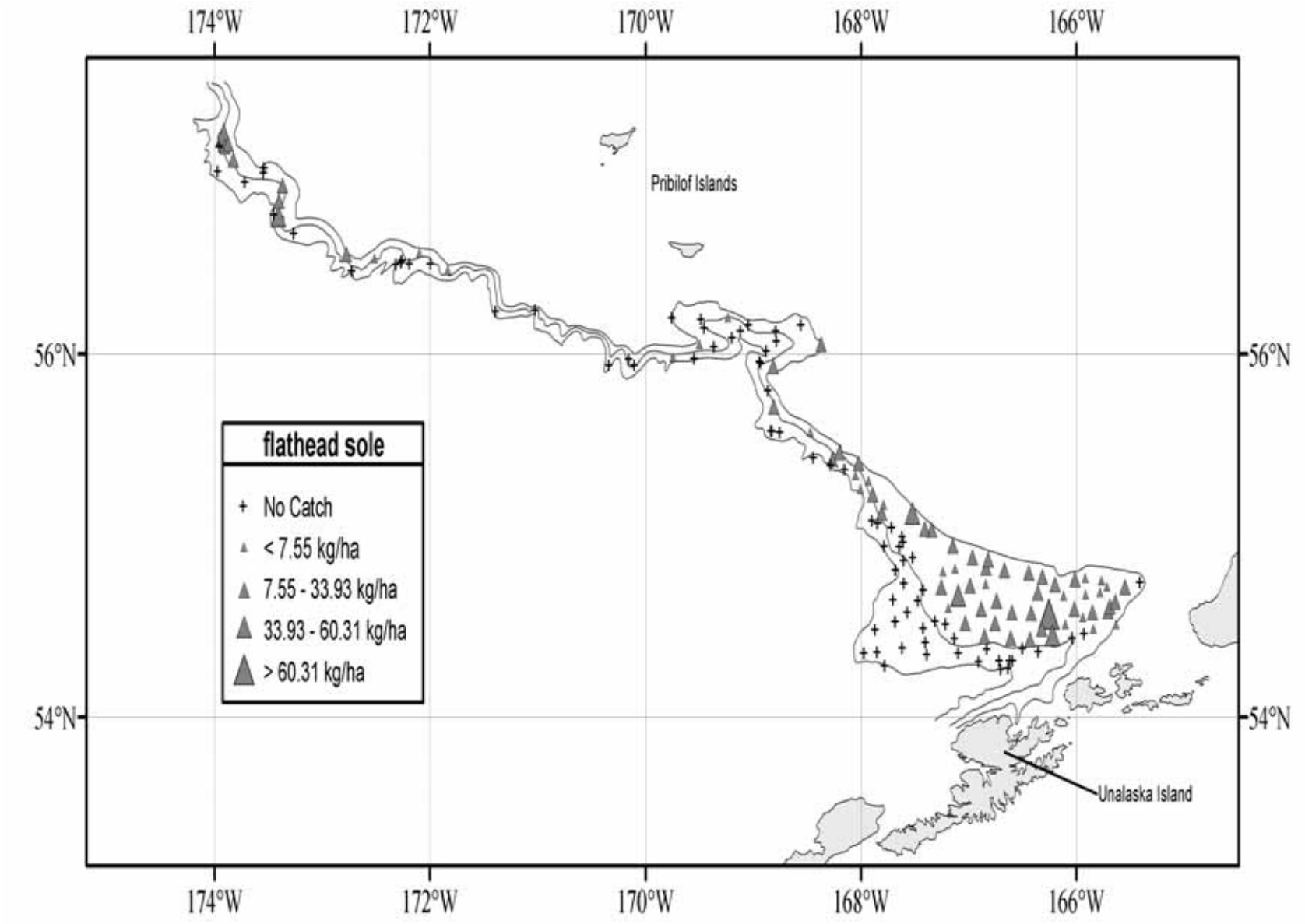

Figure 61. Continued.

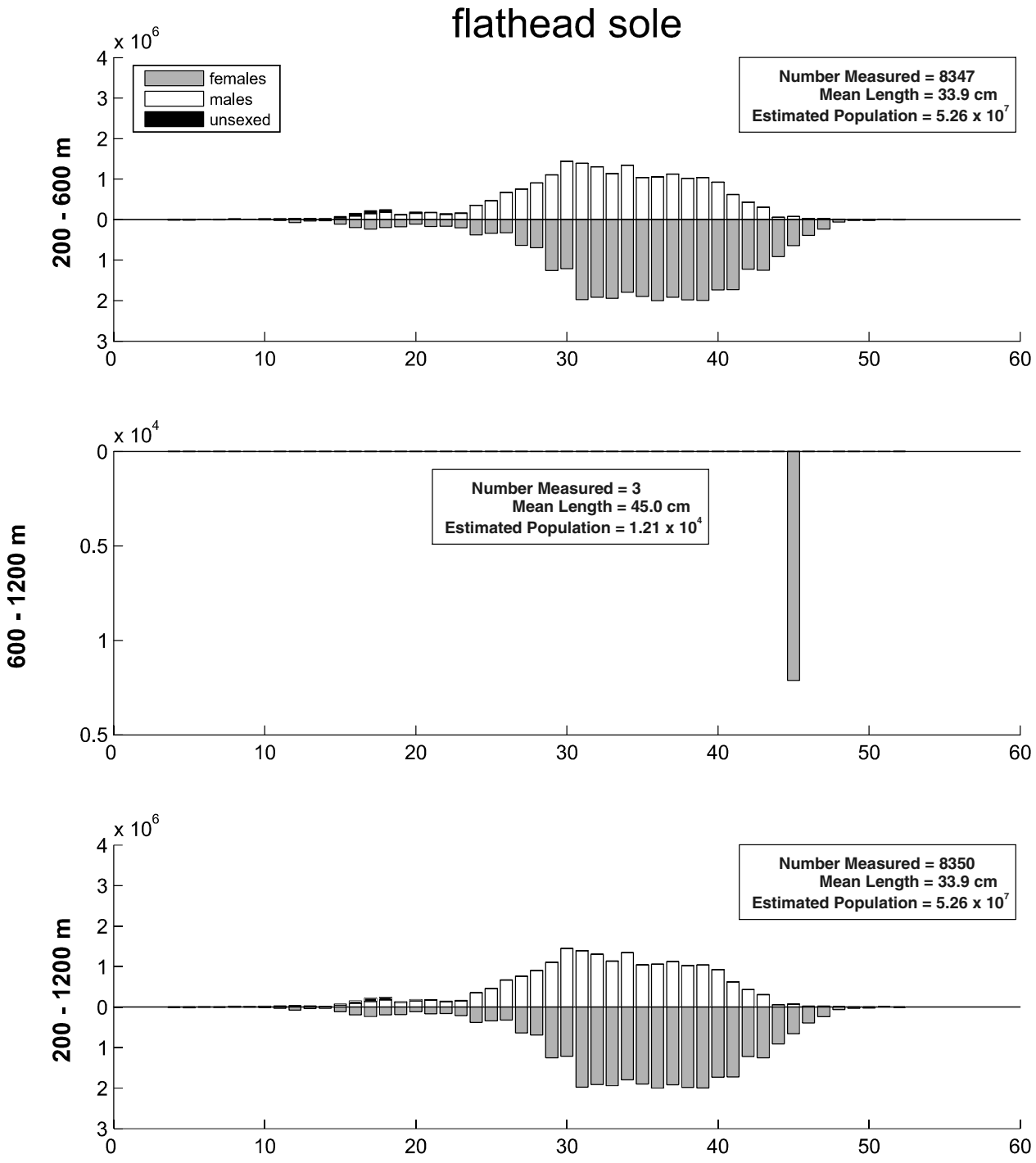

Figure 62. Size composition of the estimated flathead sole population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 39. Abundance estimates by subarea and depth strata for Greenland turbot (*Reinhardtius hippoglossoides*) from the 2004 BSS survey.

Reinhardtius hippoglossoides **Greenland turbot**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	8.94E+02	3.02E+05	1.25E+05	1.58E+10	2.23E+00	7.53E-01
	400-600	1.80E+04	3.29E+06	1.19E+08	2.97E+12	4.42E+01	8.11E+00
	600-800	3.89E+03	6.65E+05	1.29E+06	2.87E+10	2.23E+01	3.82E+00
	800-1,000	1.23E+03	2.35E+05	2.17E+05	8.47E+09	9.06E+00	1.74E+00
	1,000-1,200	8.21E+02	1.55E+05	4.50E+04	1.98E+09	7.42E+00	1.40E+00
2	200-400	7.54E+00	2.99E+03	5.69E+01	8.95E+06	6.51E-02	2.58E-02
	400-600	1.44E+03	4.46E+05	2.47E+05	3.11E+10	2.04E+01	6.32E+00
	600-800	2.79E+02	9.14E+04	1.63E+04	2.12E+09	4.72E+00	1.55E+00
	800-1,000	1.76E+02	3.20E+04	7.76E+03	2.73E+08	3.18E+00	5.79E-01
	1,000-1,200	2.88E+02	5.15E+04	9.81E+03	4.56E+08	5.37E+00	5.69E-01
3	200-400	4.78E+01	1.81E+04	1.05E+03	1.49E+08	5.29E-01	2.00E-01
	400-600	4.13E+02	1.20E+05	4.02E+03	2.87E+08	4.66E+00	1.36E+00
	600-800	5.07E+02	8.19E+04	8.83E+04	1.94E+09	5.57E+00	8.99E-01
	800-1,000	9.41E+01	1.67E+04	1.59E+03	3.85E+07	1.28E+00	2.28E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	9.60E+01	3.05E+04	1.79E+03	2.13E+08	7.76E-01	2.46E-01
	400-600	8.60E+02	1.97E+05	3.75E+04	2.87E+09	1.18E+01	2.70E+00
	600-800	4.93E+02	1.31E+05	3.26E+04	2.31E+09	7.10E+00	1.89E+00
	800-1,000	2.39E+02	5.70E+04	1.74E+04	1.20E+09	3.37E+00	8.05E-01
	1,000-1,200	4.39E+01	1.04E+04	7.47E+02	2.73E+07	6.63E-01	1.57E-01
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	4.57E+02	9.44E+04	1.26E+03	1.02E+09	1.07E+01	2.22E+00
	600-800	3.74E+01	5.47E+03	4.69E+02	9.96E+06	8.65E-01	1.27E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	5.34E+01	7.20E+03	2.85E+03	5.19E+07	9.36E-01	1.26E-01
6	200-400	1.84E+03	3.92E+05	4.38E+05	4.43E+10	7.10E+00	1.51E+00
	400-600	4.23E+03	7.35E+05	5.59E+06	9.98E+10	2.48E+01	4.31E+00
	600-800	9.99E+01	2.39E+04	4.76E+03	2.29E+08	1.09E+00	2.61E-01
	800-1,000	6.38E+01	1.96E+04	1.54E+03	8.63E+07	9.89E-01	3.04E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**3.66E+04**	**7.21E+06**	**1.27E+08**	**3.21E+12**	**1.26E+01**	**2.47E+00**

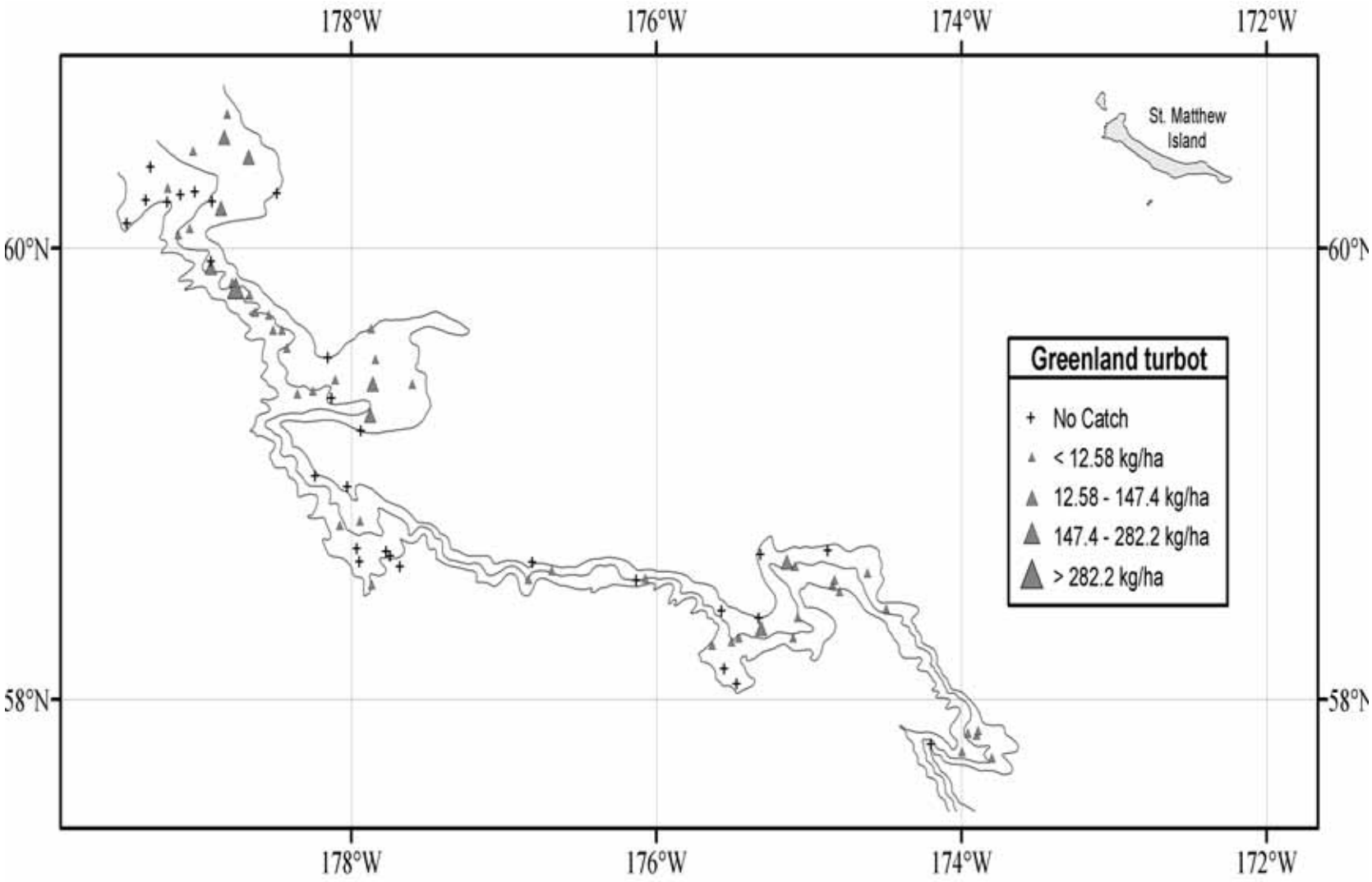

Figure 63. Distribution and relative abundance of Greenland turbot from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

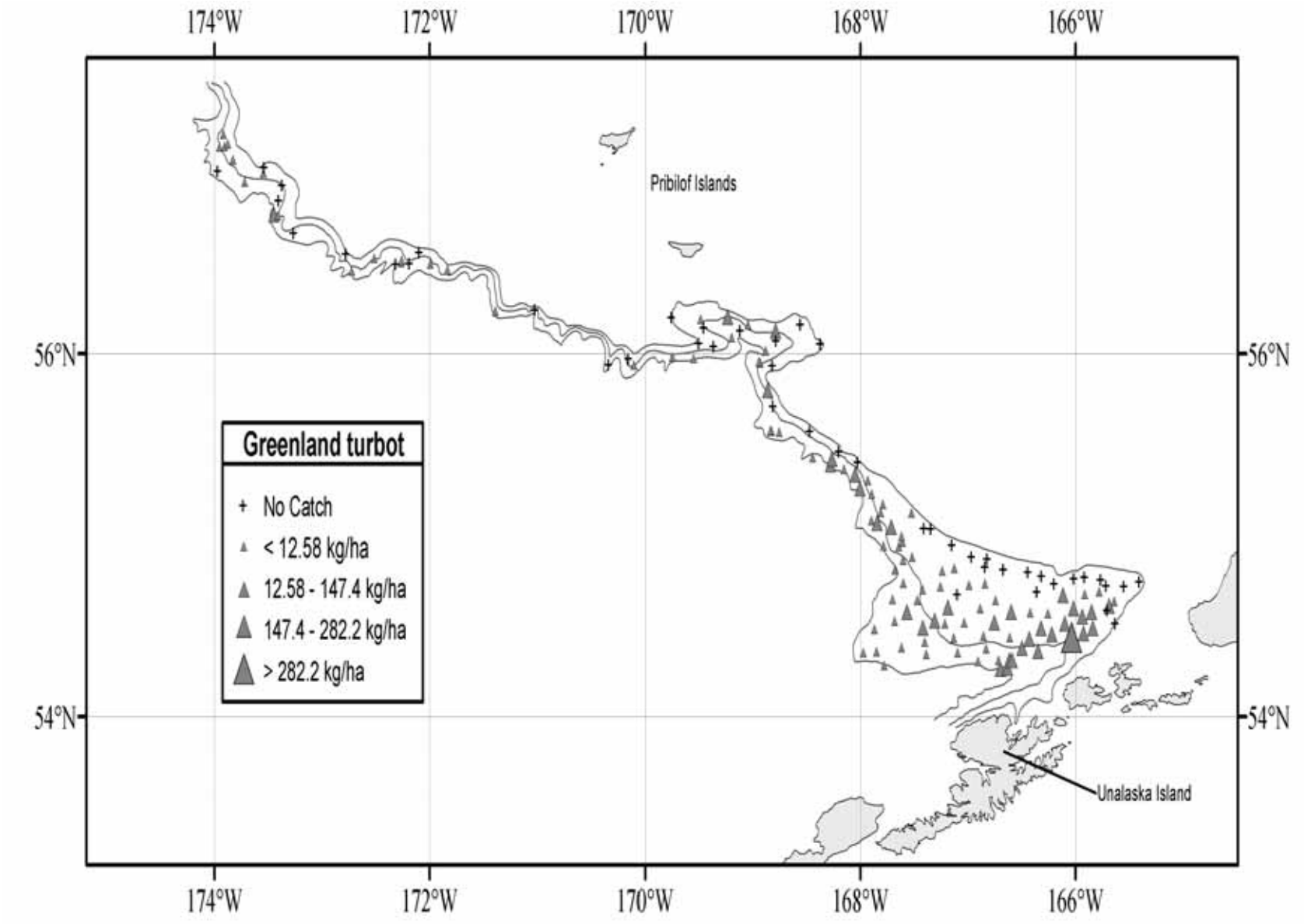

Figure 63. Continued.

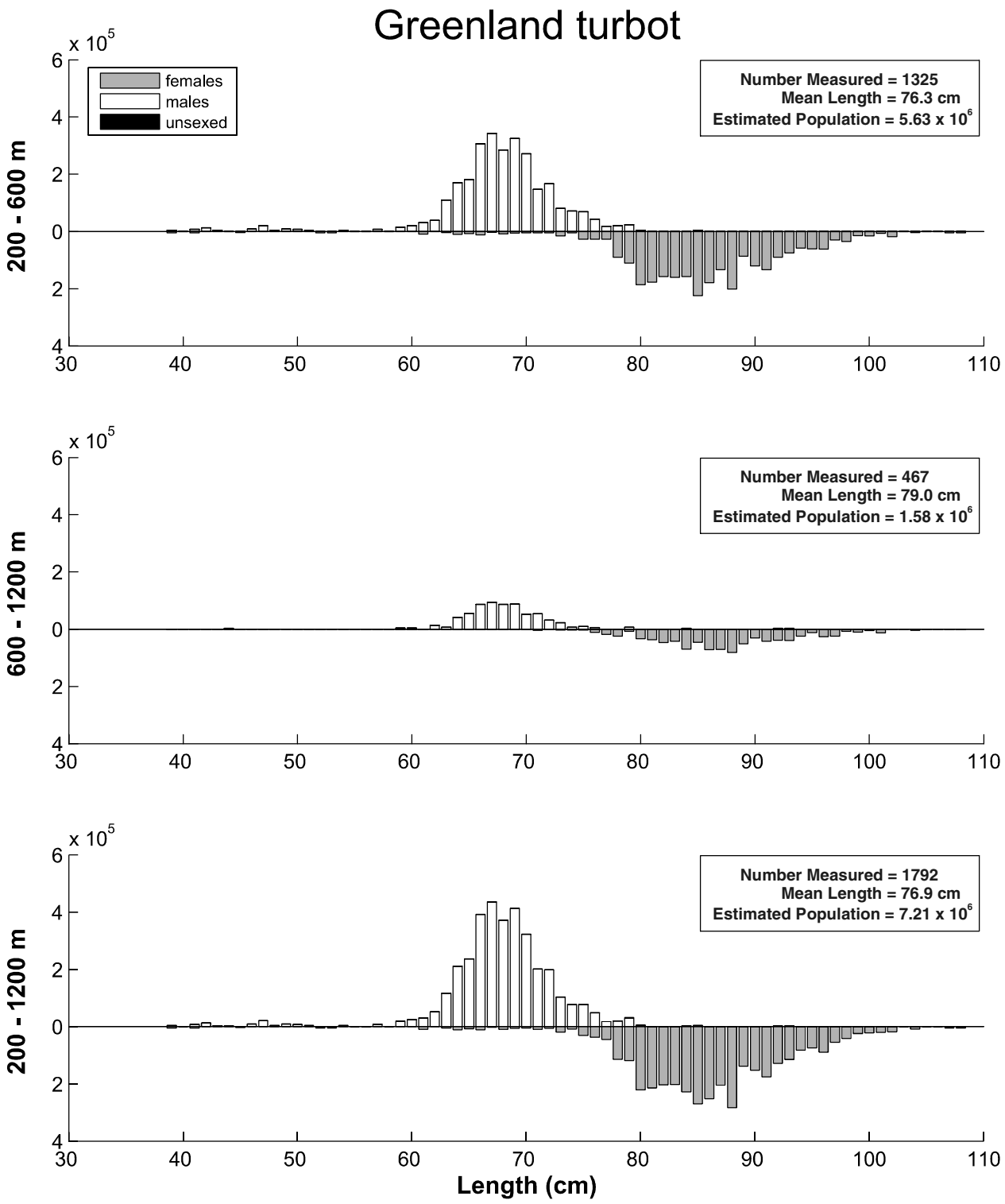

Figure 64. Size composition of the estimated Greenland turbot population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 40. Abundance estimates by subarea and depth strata for arrowtooth flounder (*Atheresthes stomias*) from the 2004 BSS survey.

Atheresthes stomias **arrowtooth flounder**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	2.30E+04	2.70E+07	2.23E+07	2.17E+13	5.73E+01	6.74E+01
	400-600	2.14E+03	1.41E+06	2.73E+05	1.92E+11	5.27E+00	3.46E+00
	600-800	3.53E+01	2.19E+04	3.88E+02	1.84E+08	2.03E-01	1.26E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	2.61E+01	6.19E+03	6.81E+02	3.83E+07	2.36E-01	5.59E-02
2	200-400	3.52E+03	3.14E+06	8.82E+05	7.76E+11	3.04E+01	2.72E+01
	400-600	3.09E+02	1.82E+05	2.85E+04	1.41E+10	4.38E+00	2.59E+00
	600-800	1.10E+01	4.85E+03	1.22E+02	2.35E+07	1.87E-01	8.20E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	4.81E+03	3.47E+06	2.13E+06	1.37E+12	5.33E+01	3.84E+01
	400-600	5.51E+02	2.88E+05	1.18E+05	3.09E+10	6.22E+00	3.25E+00
	600-800	8.46E+00	4.68E+03	7.16E+01	2.19E+07	9.30E-02	5.14E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	5.47E+03	4.13E+06	1.12E+06	6.74E+11	4.43E+01	3.34E+01
	400-600	1.16E+02	5.21E+04	9.75E+03	1.89E+09	1.59E+00	7.14E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	8.12E+02	7.92E+05	1.75E+05	1.83E+11	1.92E+01	1.87E+01
	400-600	9.49E+01	5.69E+04	1.82E+03	5.27E+08	2.23E+00	1.34E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.06E+04	1.08E+07	4.73E+06	6.19E+12	4.09E+01	4.16E+01
	400-600	2.23E+03	1.76E+06	1.27E+06	7.81E+11	1.31E+01	1.03E+01
	600-800	3.05E+00	4.80E+03	9.33E+00	2.31E+07	3.33E-02	5.24E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	7.40E+00	1.27E+04	5.47E+01	1.62E+08	1.49E-01	2.57E-01
All Areas and Depths Combined		**5.37E+04**	**5.32E+07**	**3.31E+07**	**3.20E+13**	**1.75E+01**	**1.74E+01**

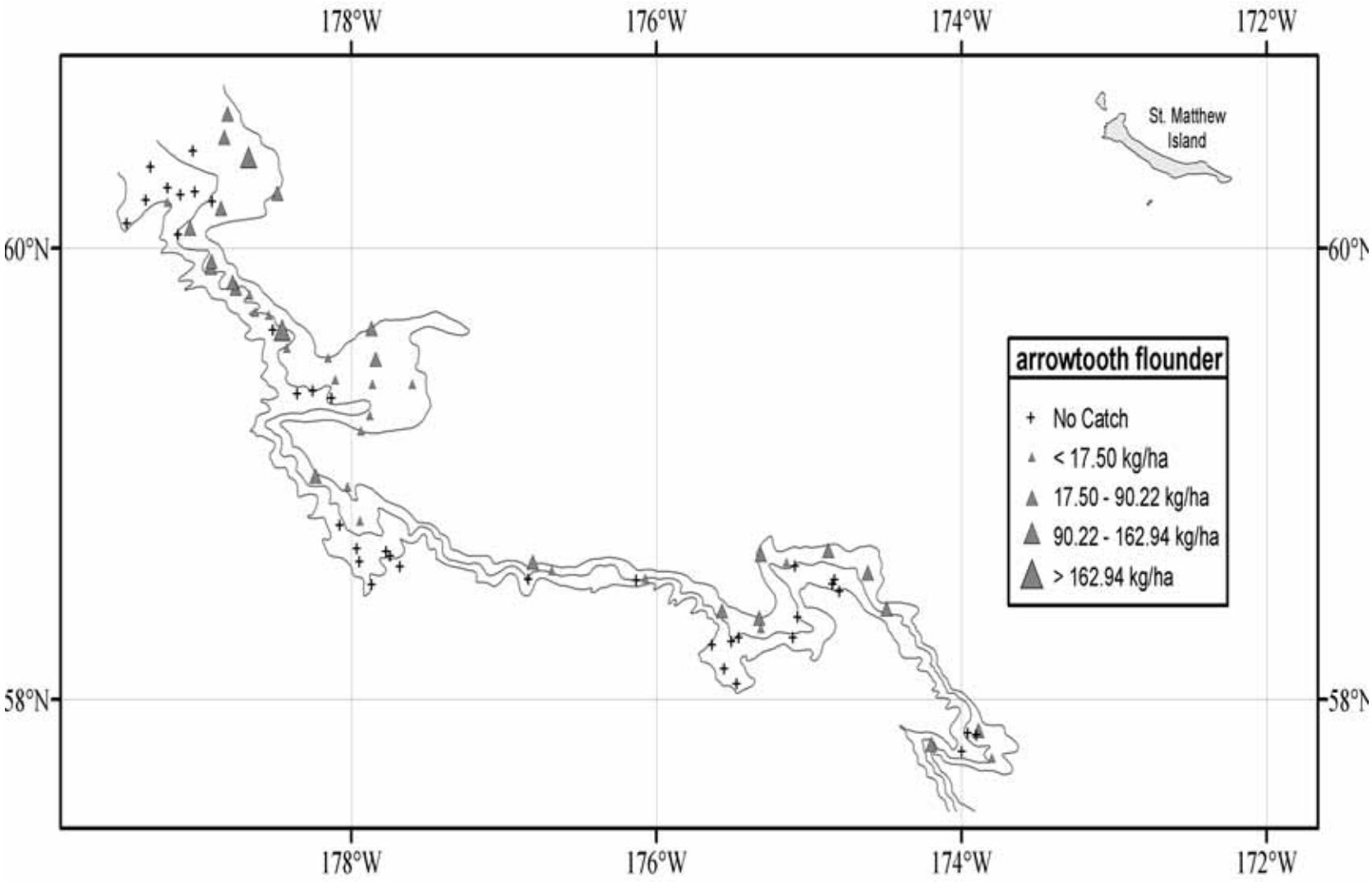

Figure 65. Distribution and relative abundance of arrowtooth flounder from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

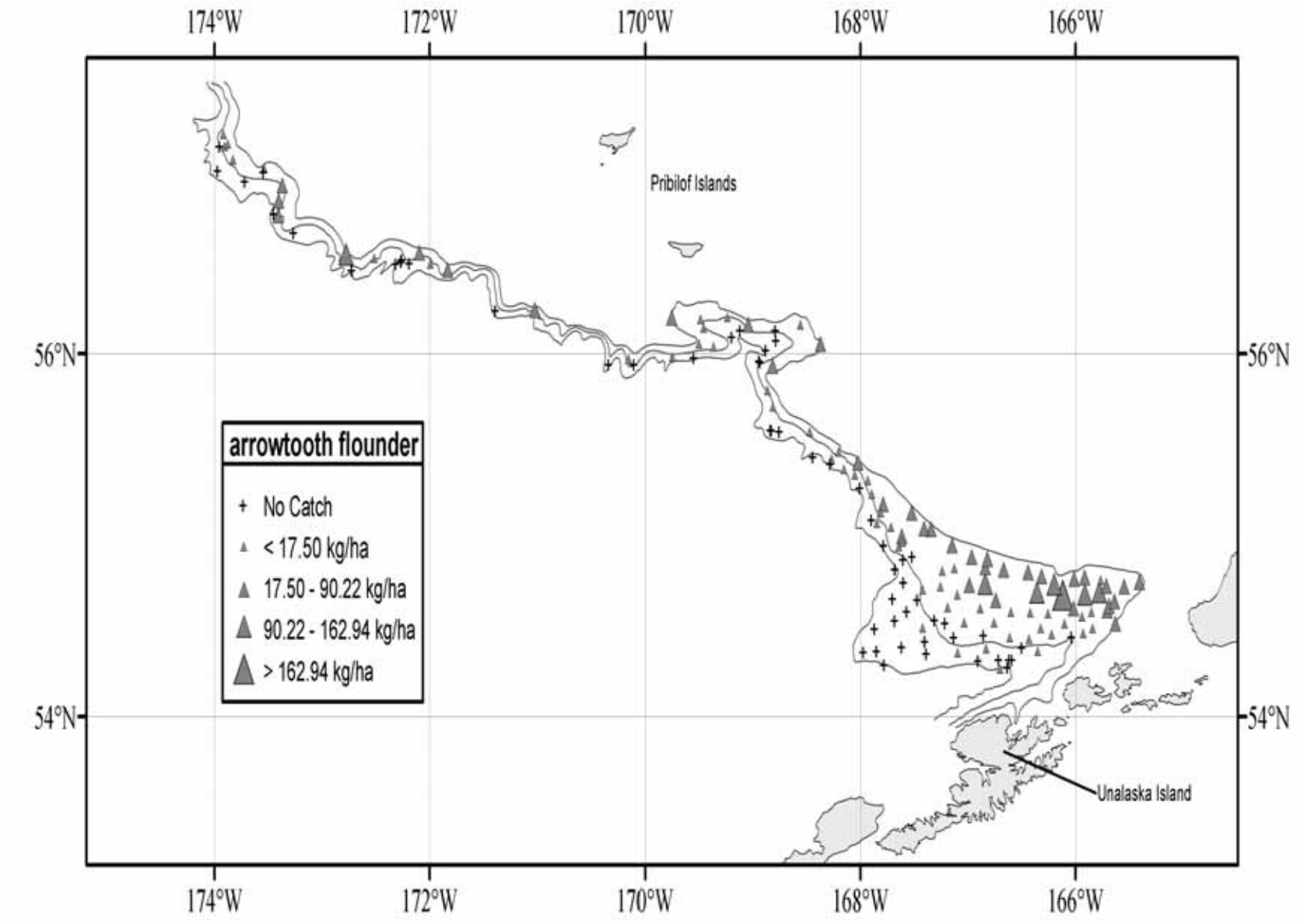

Figure 65. Continued.

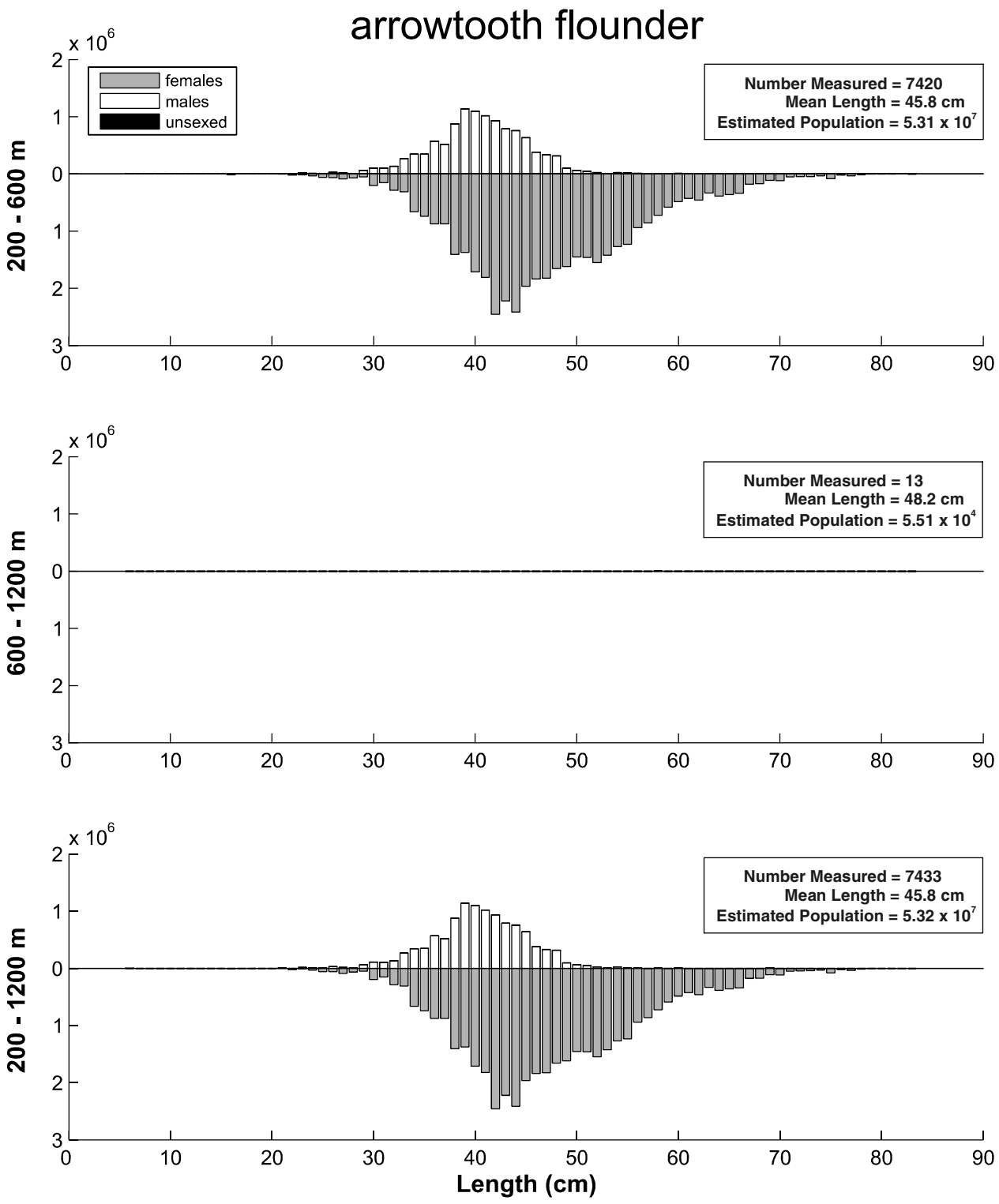

Figure 66. Size composition of the estimated arrowtooth flounder population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 41. Abundance estimates by subarea and depth strata for Kamchatka flounder (*Atheresthes evermanni*) from the 2004 BSS survey.

Atheresthes evermanni **Kamchatka flounder**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	1.84E+03	1.41E+06	2.08E+05	8.83E+10	4.60E+00	3.52E+00
	400-600	4.67E+03	2.82E+06	1.18E+06	7.22E+11	1.15E+01	6.94E+00
	600-800	8.12E+02	3.34E+05	4.09E+04	6.99E+09	4.66E+00	1.92E+00
	800-1,000	3.33E+02	1.37E+05	1.41E+04	1.99E+09	2.46E+00	1.01E+00
	1,000-1,200	1.20E+02	4.20E+04	1.21E+03	1.54E+08	1.08E+00	3.79E-01
2	200-400	8.34E+02	7.59E+05	2.00E+05	1.02E+11	7.20E+00	6.55E+00
	400-600	1.64E+03	7.47E+05	2.41E+05	2.81E+10	2.32E+01	1.06E+01
	600-800	1.95E+02	9.55E+04	1.21E+04	1.82E+09	3.30E+00	1.61E+00
	800-1,000	3.75E+02	1.32E+05	2.86E+04	3.80E+09	6.79E+00	2.39E+00
	1,000-1,200	4.14E+01	1.34E+04	3.53E+02	3.30E+07	7.73E-01	2.51E-01
3	200-400	2.62E+02	1.99E+05	8.79E+03	1.69E+09	2.90E+00	2.20E+00
	400-600	3.86E+02	2.40E+05	5.43E+03	7.10E+08	4.36E+00	2.71E+00
	600-800	3.93E+02	1.75E+05	2.29E+04	2.94E+09	4.31E+00	1.93E+00
	800-1,000	6.02E+01	2.37E+04	1.05E+03	1.62E+08	8.22E-01	3.23E-01
	1,000-1,200	2.88E+01	8.42E+03	8.29E+02	7.09E+07	4.26E-01	1.25E-01
4	200-400	6.96E+02	9.90E+05	4.76E+04	1.95E+11	5.63E+00	8.00E+00
	400-600	3.45E+02	2.00E+05	4.86E+03	2.65E+09	4.72E+00	2.74E+00
	600-800	1.31E+02	7.84E+04	4.98E+03	1.78E+09	1.89E+00	1.13E+00
	800-1,000	4.60E+01	1.86E+04	3.77E+02	6.54E+07	6.49E-01	2.63E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	1.25E+02	2.97E+05	4.62E+03	2.78E+10	2.96E+00	7.01E+00
	400-600	1.10E+02	7.14E+04	3.33E+03	1.29E+09	2.59E+00	1.68E+00
	600-800	2.68E+01	1.36E+04	2.42E+02	6.68E+07	6.22E-01	3.15E-01
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	7.01E+02	1.02E+06	4.30E+04	8.23E+10	2.70E+00	3.94E+00
	400-600	3.62E+02	2.51E+05	1.31E+04	7.33E+09	2.12E+00	1.47E+00
	600-800	1.93E+02	1.34E+05	1.41E+04	6.80E+09	2.10E+00	1.46E+00
	800-1,000	1.31E+01	6.74E+03	1.72E+02	4.55E+07	2.03E-01	1.05E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.47E+04**	**1.02E+07**	**2.10E+06**	**1.29E+12**	**4.99E+00**	**3.43E+00**

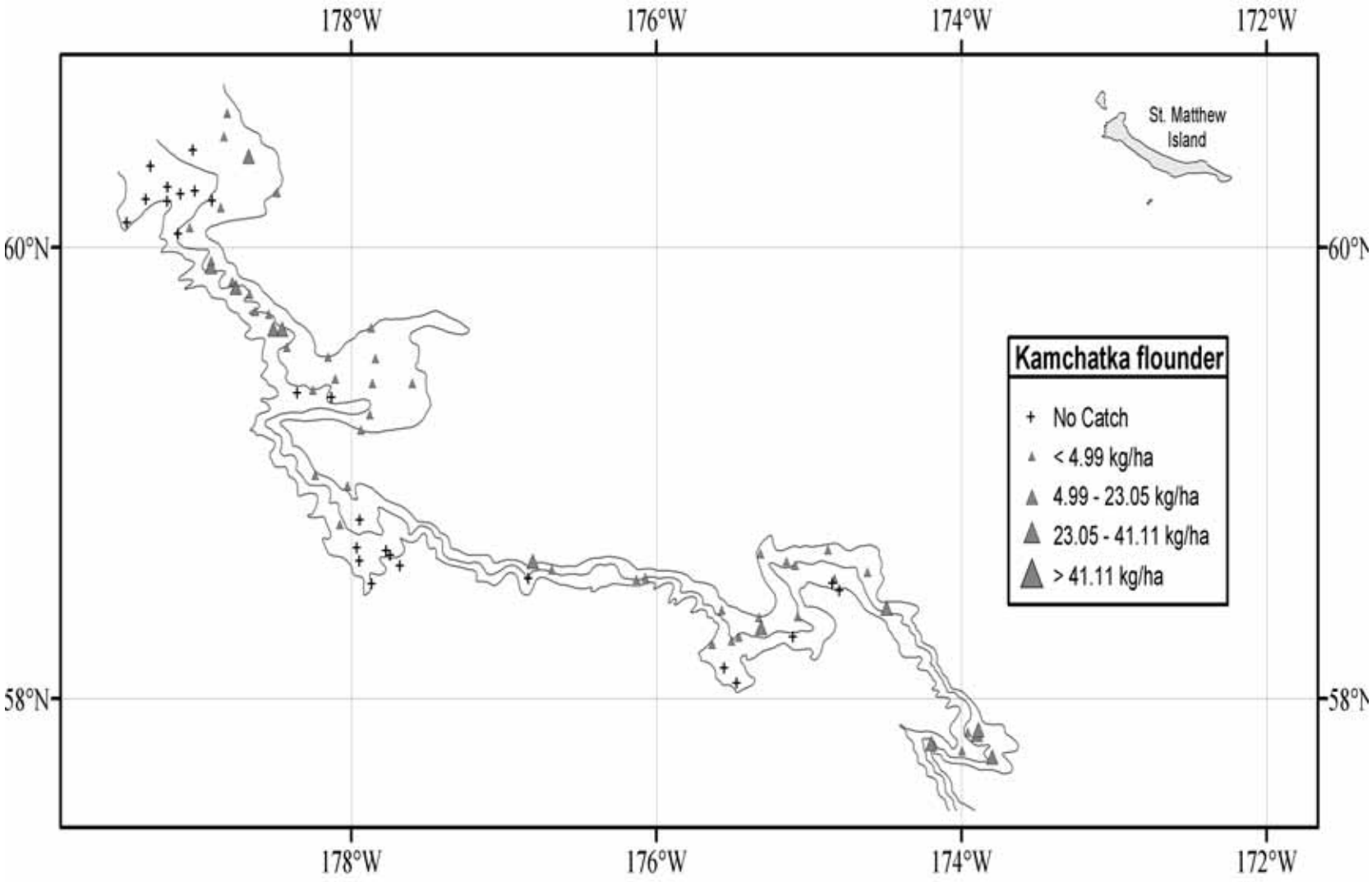

Figure 67. Distribution and relative abundance of Kamchatka flounder from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

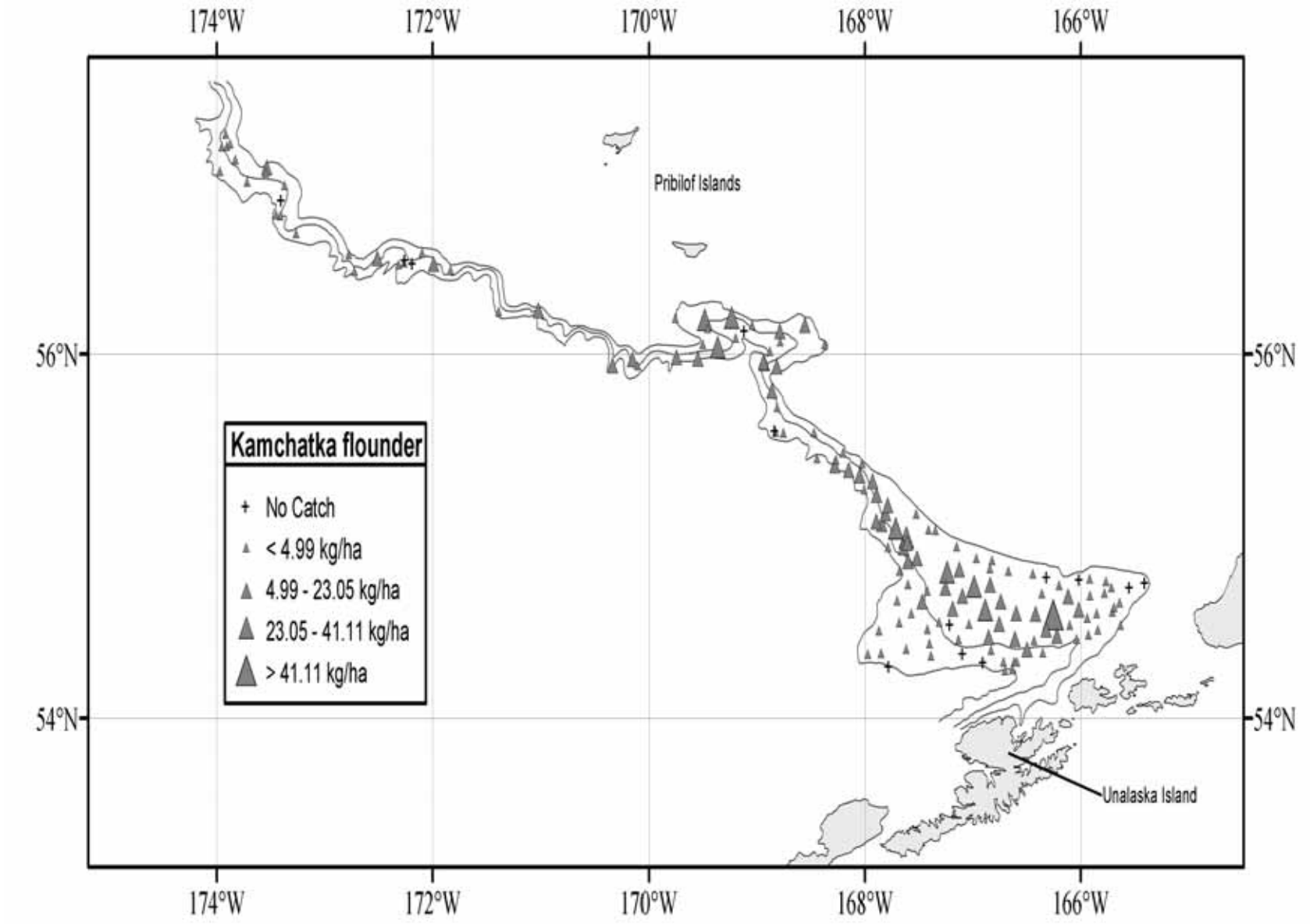

Figure 67. Continued.

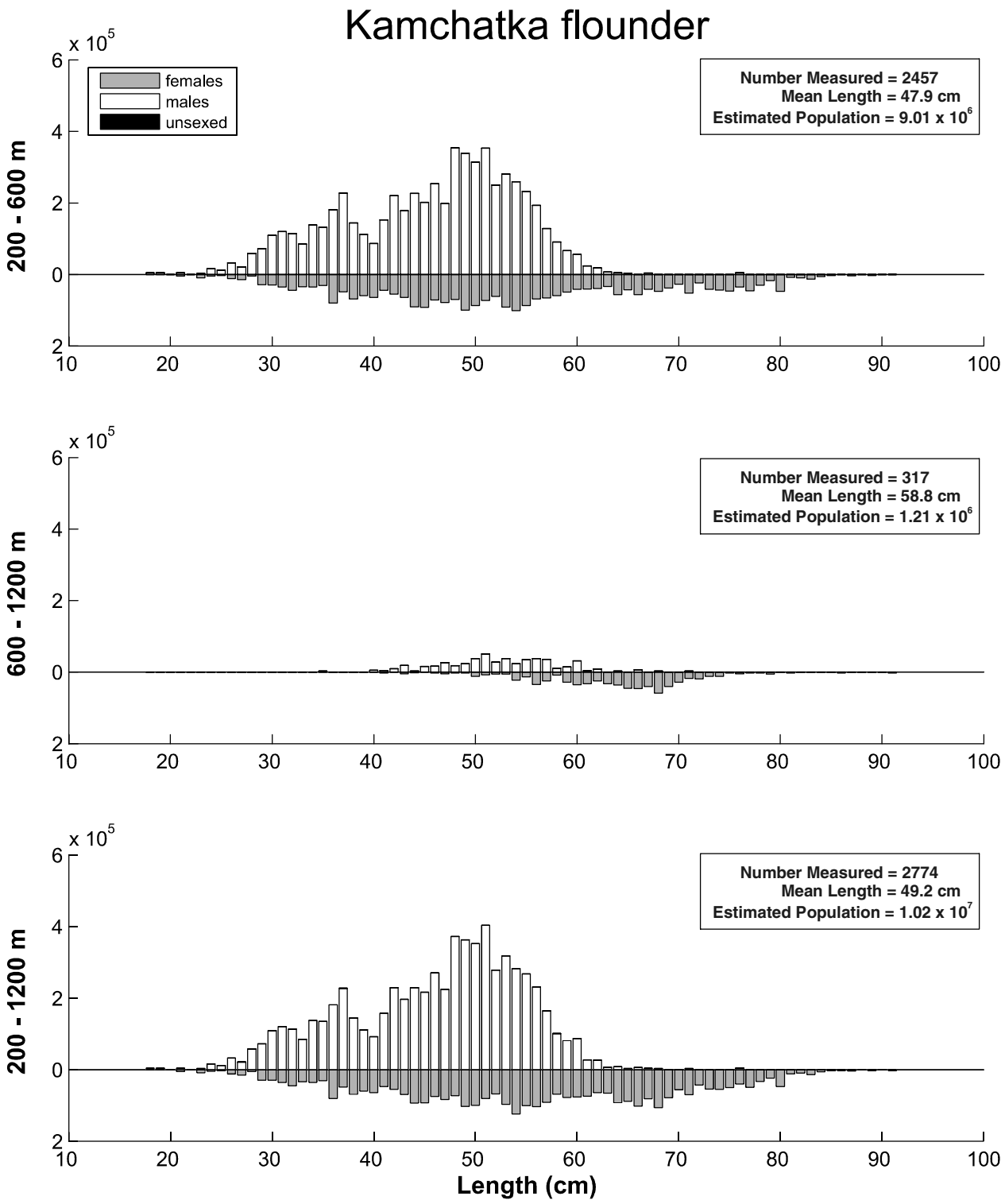

Figure 68. Size composition of the estimated Kamchatka flounder population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 42. Abundance estimates by subarea and depth strata for rex sole (*Glyptocephalus zachirus*) from the 2004 BSS survey.

Glyptocephalus zachirus **rex sole**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	4.43E+03	7.28E+06	8.01E+05	1.87E+12	1.10E+01	1.82E+01
	400-600	1.43E+03	2.62E+06	1.04E+05	2.84E+11	3.53E+00	6.45E+00
	600-800	4.98E-01	6.29E+03	1.87E-01	1.83E+07	2.86E-03	3.61E-02
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.53E+03	2.86E+06	3.32E+05	1.30E+12	1.32E+01	2.47E+01
	400-600	2.01E+02	2.94E+05	1.67E+04	3.96E+10	2.85E+00	4.18E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	1.62E+03	2.48E+06	1.98E+05	4.10E+11	1.80E+01	2.74E+01
	400-600	4.54E+02	8.15E+05	1.06E+04	6.35E+10	5.13E+00	9.20E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	1.21E+03	1.73E+06	1.46E+05	2.09E+11	9.79E+00	1.40E+01
	400-600	1.66E+02	2.34E+05	1.60E+04	3.30E+10	2.27E+00	3.20E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	4.31E+02	1.22E+06	1.83E+04	1.28E+11	1.02E+01	2.88E+01
	400-600	3.24E+01	5.52E+04	2.43E+02	5.15E+08	7.60E-01	1.30E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	8.80E+02	2.25E+06	1.53E+05	1.03E+12	3.39E+00	8.67E+00
	400-600	4.03E+01	9.03E+04	7.68E+02	2.74E+09	2.37E-01	5.30E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.24E+04**	**2.19E+07**	**1.80E+06**	**5.37E+12**	**4.26E+00**	**7.45E+00**

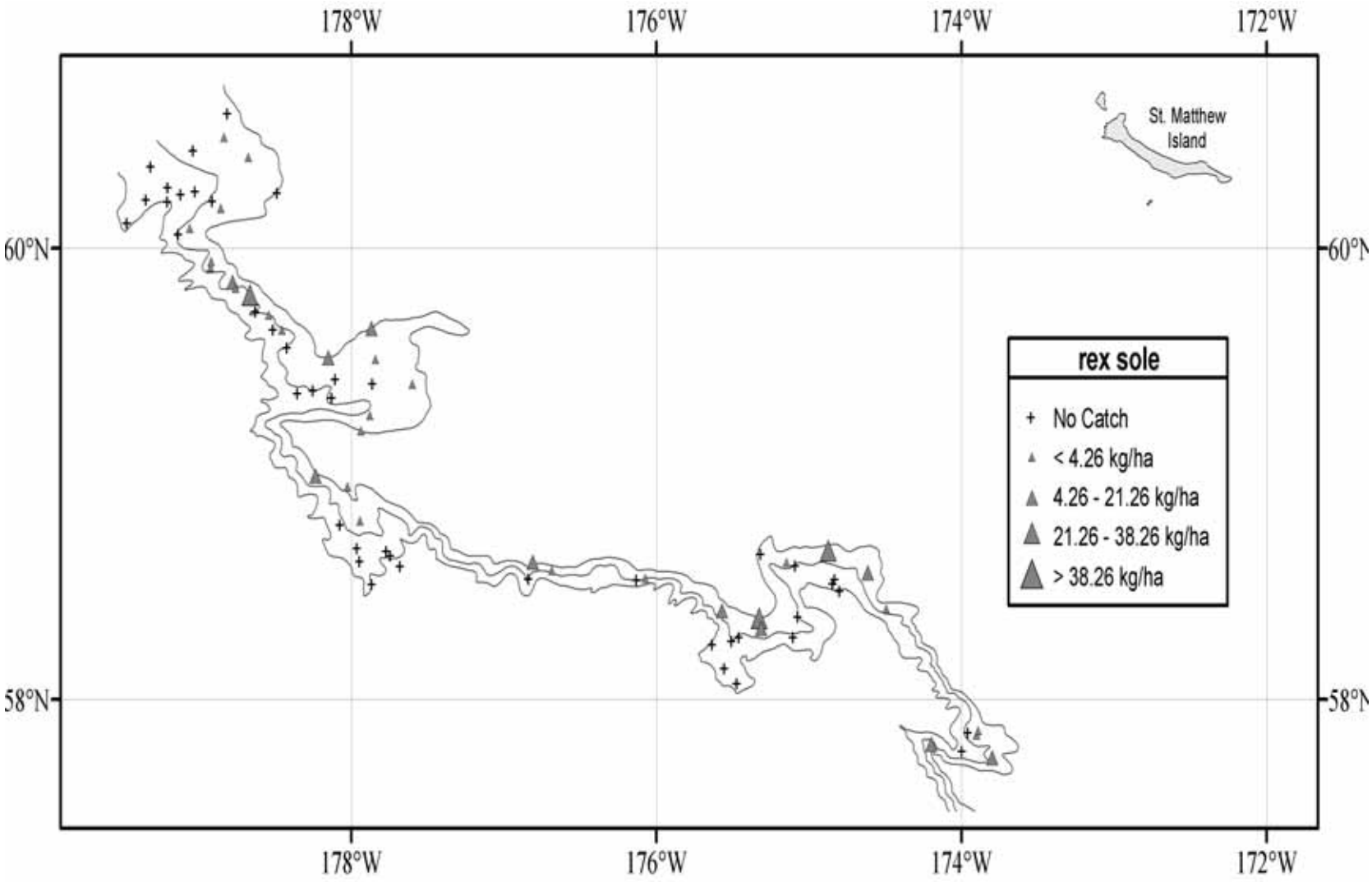

Figure 69. Distribution and relative abundance of rex sole from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

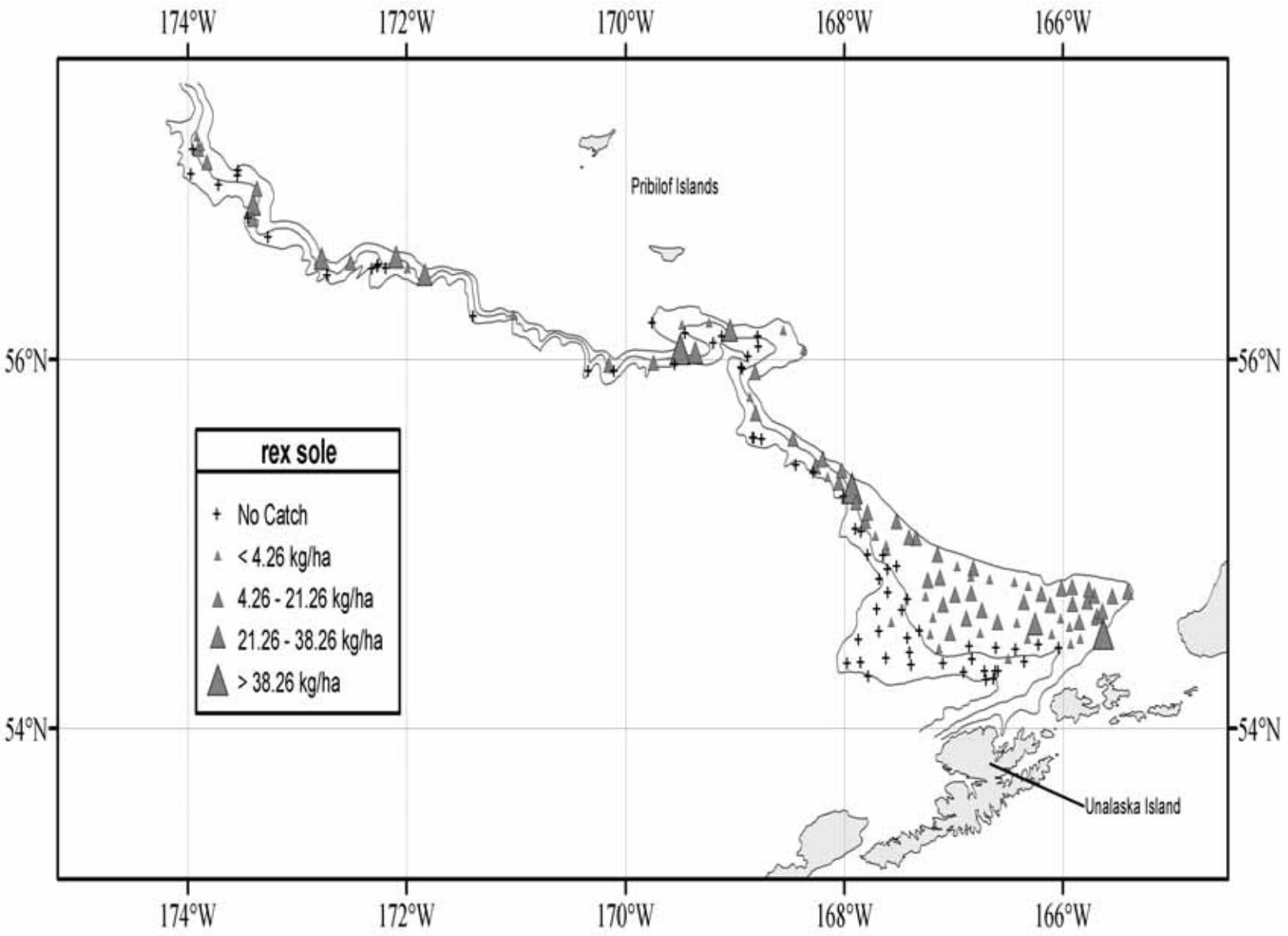

Figure 69. Continued.

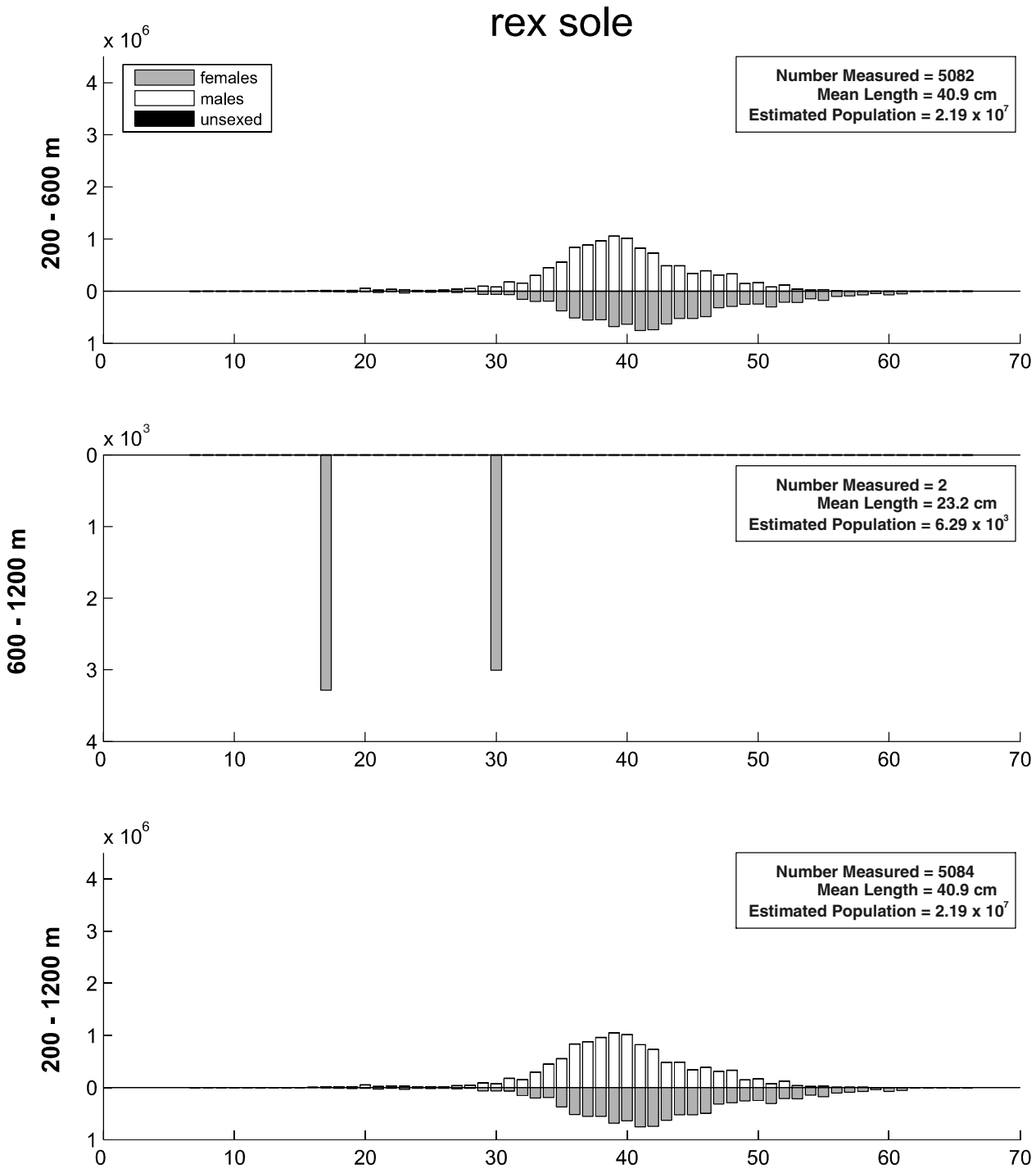

Figure 70. Size composition of the estimated rex sole population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total length in centimeters while the ordinate represents the estimated total population.

Table 43. Abundance estimates by subarea and depth strata for triangle Tanner crab (*Chionoecetes angulatus*) from the 2004 BSS survey.

Chionoecetes angulatus **triangle Tanner crab**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	5.73E-01	1.22E+04	3.28E-01	1.49E+08	1.43E-03	3.04E-02
	400-600	5.89E+02	3.16E+06	8.69E+04	2.37E+12	1.45E+00	7.79E+00
	600-800	3.66E+02	5.48E+06	3.31E+04	7.42E+12	2.10E+00	3.14E+01
	800-1,000	1.23E+03	1.64E+07	9.72E+04	2.41E+13	9.06E+00	1.21E+02
	1,000-1,200	1.30E+03	1.95E+07	5.10E+04	2.07E+13	1.17E+01	1.77E+02
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.94E+00	1.83E+04	1.43E+00	1.30E+08	2.75E-02	2.59E-01
	600-800	1.26E+00	2.79E+03	1.59E+00	7.80E+06	2.13E-02	4.72E-02
	800-1,000	2.54E+02	4.81E+06	5.84E+04	2.05E+13	4.60E+00	8.71E+01
	1,000-1,200	4.00E+02	2.49E+06	1.84E+04	5.68E+11	7.47E+00	4.65E+01
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	6.37E+00	5.07E+04	2.39E+01	1.25E+09	7.19E-02	5.72E-01
	600-800	8.37E+01	1.13E+06	2.42E+03	4.54E+11	9.19E-01	1.24E+01
	800-1,000	5.88E+01	1.07E+06	5.39E+02	1.20E+11	8.03E-01	1.46E+01
	1,000-1,200	2.93E+00	5.05E+04	8.59E+00	2.55E+09	4.34E-02	7.48E-01
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	4.02E+00	3.71E+04	9.72E+00	2.94E+08	5.79E-02	5.34E-01
	800-1,000	9.60E+01	3.48E+06	3.05E+03	8.25E+12	1.36E+00	4.92E+01
	1,000-1,200	2.90E+01	3.13E+05	2.78E+02	1.27E+10	4.37E-01	4.72E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	1.26E+00	3.41E+03	1.58E+00	1.17E+07	2.95E-02	8.02E-02
	600-800	6.29E+01	2.73E+05	3.24E+03	4.68E+10	1.46E+00	6.33E+00
	800-1,000	4.55E+01	1.21E+06	4.07E+02	2.65E+11	8.25E-01	2.19E+01
	1,000-1,200	3.17E+01	5.36E+05	2.39E+00	1.65E+11	5.55E-01	9.41E+00
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	3.98E+01	2.20E+05	5.87E+02	9.88E+09	2.34E-01	1.29E+00
	600-800	1.72E+02	1.05E+06	9.23E+03	3.66E+11	1.87E+00	1.14E+01
	800-1,000	2.15E+02	2.53E+06	8.33E+02	8.15E+11	3.33E+00	3.92E+01
	1,000-1,200	1.83E+02	5.11E+05	1.42E+04	3.70E+10	3.68E+00	1.03E+01
All Areas and Depths Combined		**5.17E+03**	**6.44E+07**	**3.80E+05**	**8.62E+13**	**1.62E+00**	**1.96E+01**

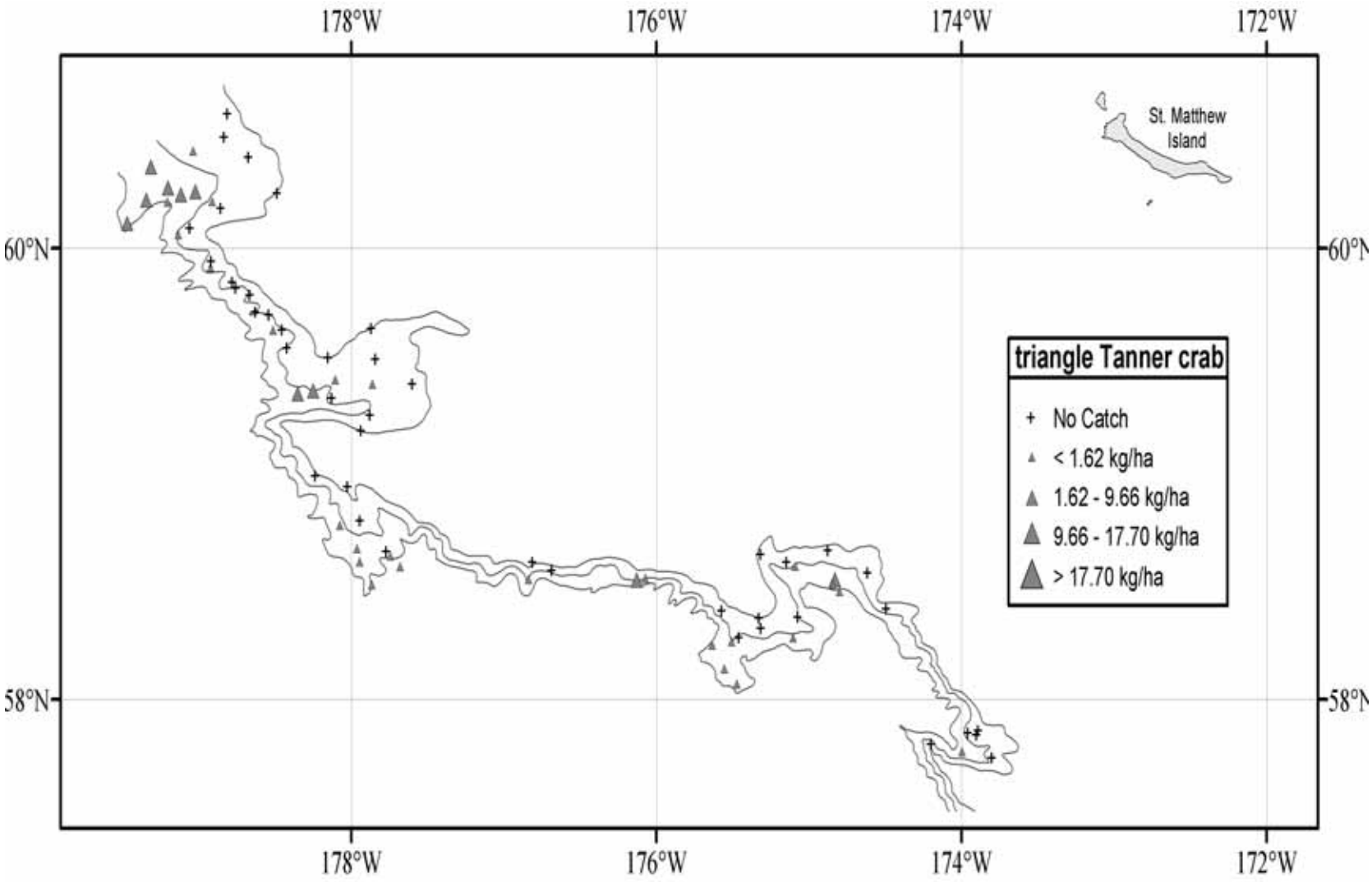

Figure 71. Distribution and relative abundance of triangle Tanner crab from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

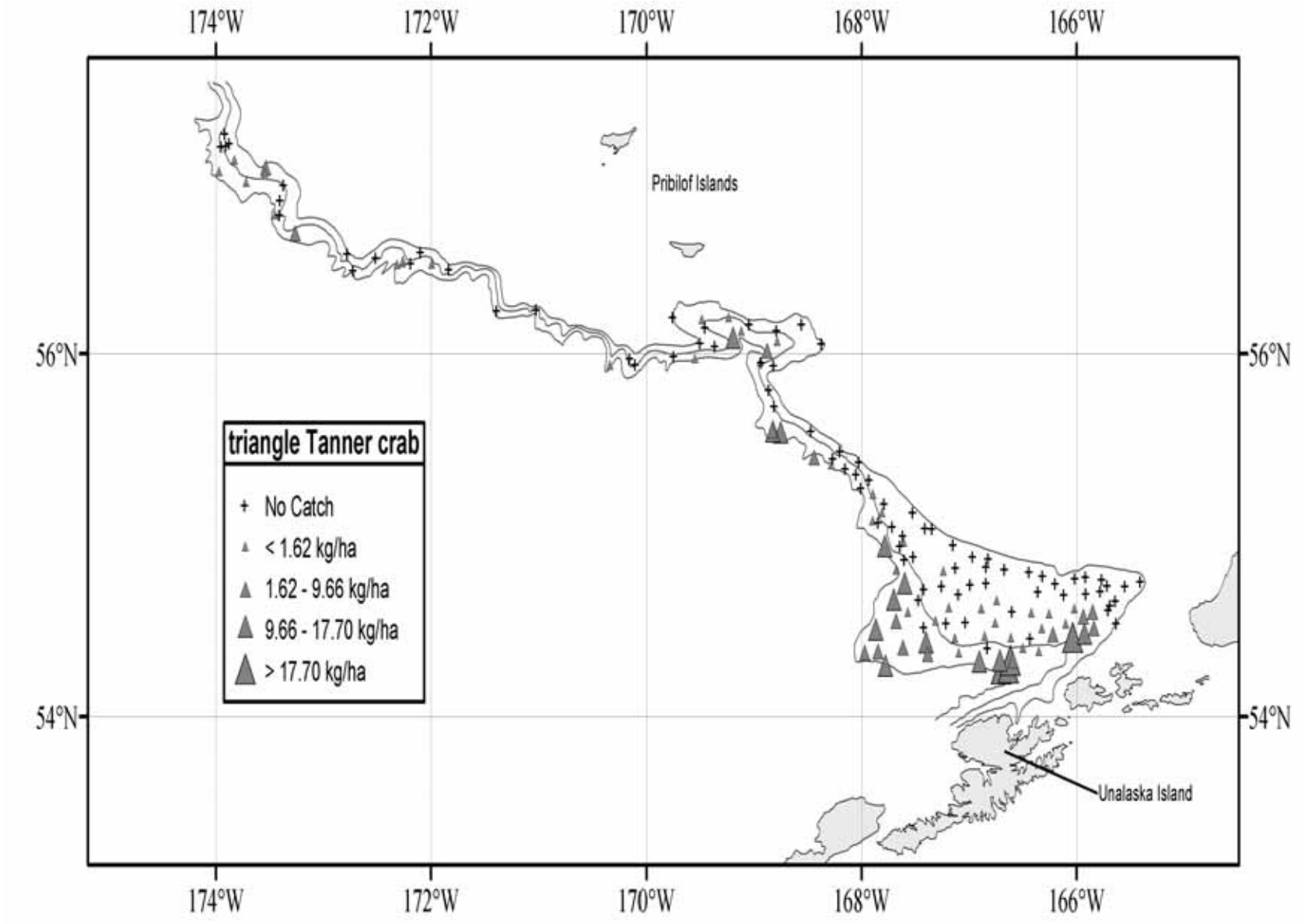

Figure 71. Continued.

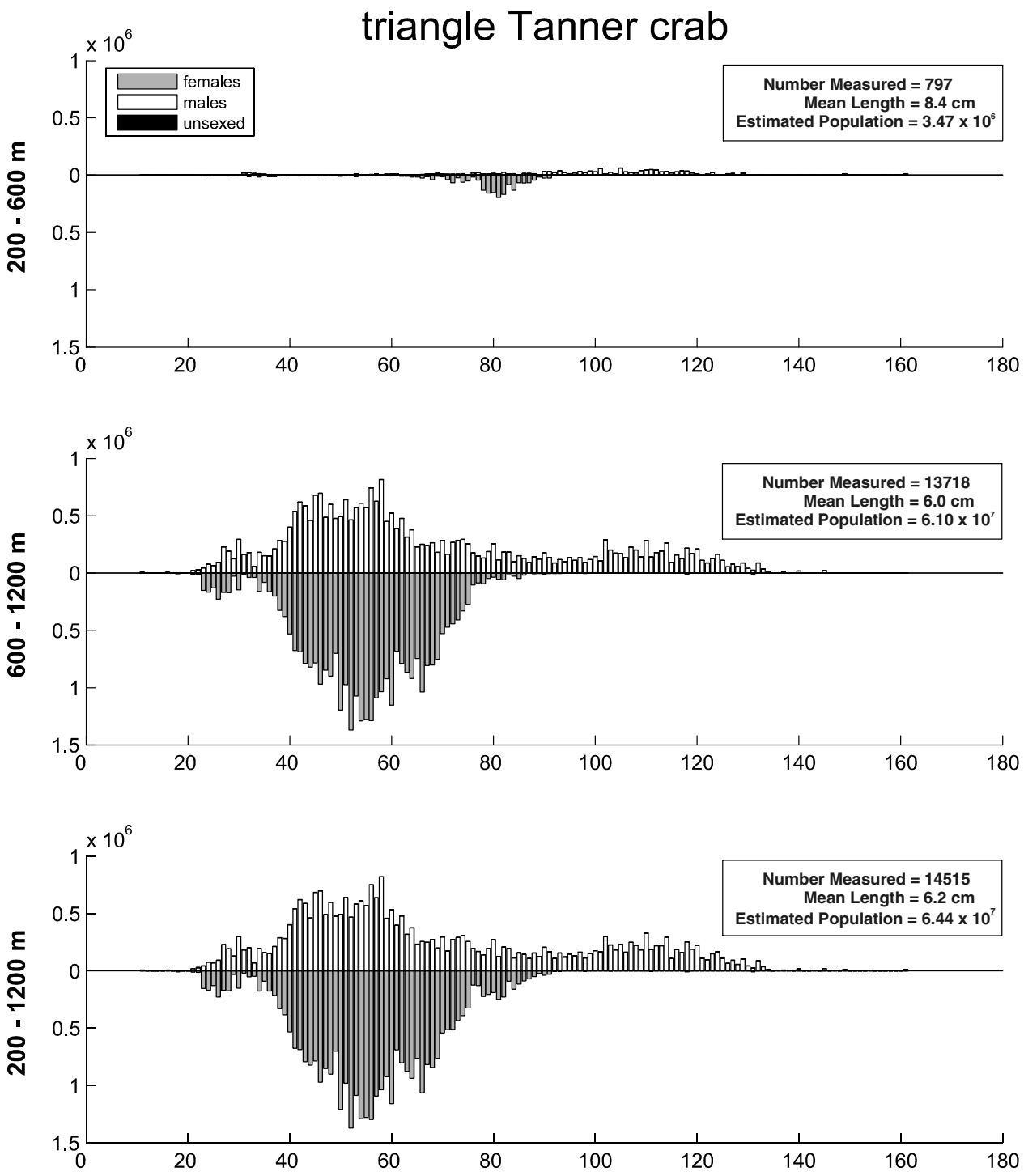

Figure 72. Size composition of the estimated triangle Tanner crab population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total carapace width in millimeters while the ordinate represents the estimated total population.

Table 44. Abundance estimates by subarea and depth strata for Tanner crab (*Chionoecetes bairdi*) from the 2004 BSS survey.

Chionoecetes bairdi **Tanner crab**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	6.56E+02	7.68E+06	1.39E+05	1.30E+13	1.64E+00	1.91E+01
	400-600	8.17E+00	4.32E+04	2.89E+01	5.17E+08	2.01E-02	1.06E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	1.91E+01	2.16E+05	1.26E+02	1.24E+10	1.65E-01	1.87E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	7.32E-01	7.18E+03	2.74E-01	2.16E+07	8.10E-03	7.95E-02
	400-600	3.98E-01	1.07E+04	8.43E-02	4.95E+07	4.49E-03	1.20E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	1.31E+01	2.11E+05	5.76E+01	1.12E+10	1.06E-01	1.71E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	5.41E+00	9.47E+04	7.73E+00	1.08E+09	1.28E-01	2.24E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	8.44E+01	8.48E+05	2.30E+03	1.52E+11	3.25E-01	3.27E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**7.87E+02**	**9.11E+06**	**1.42E+05**	**1.32E+13**	**2.71E-01**	**3.15E+00**

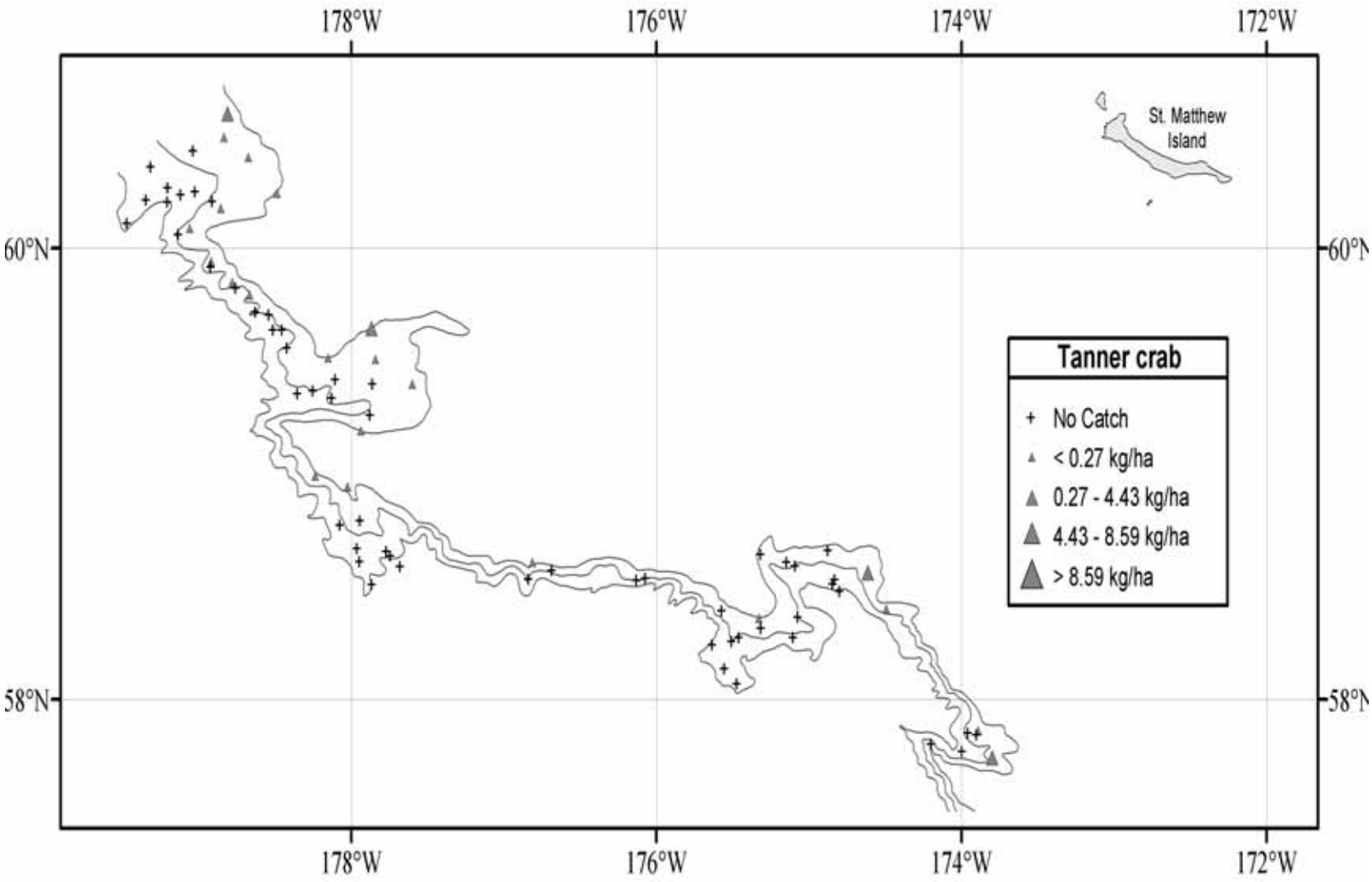

Figure 73. Distribution and relative abundance of Tanner crab from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

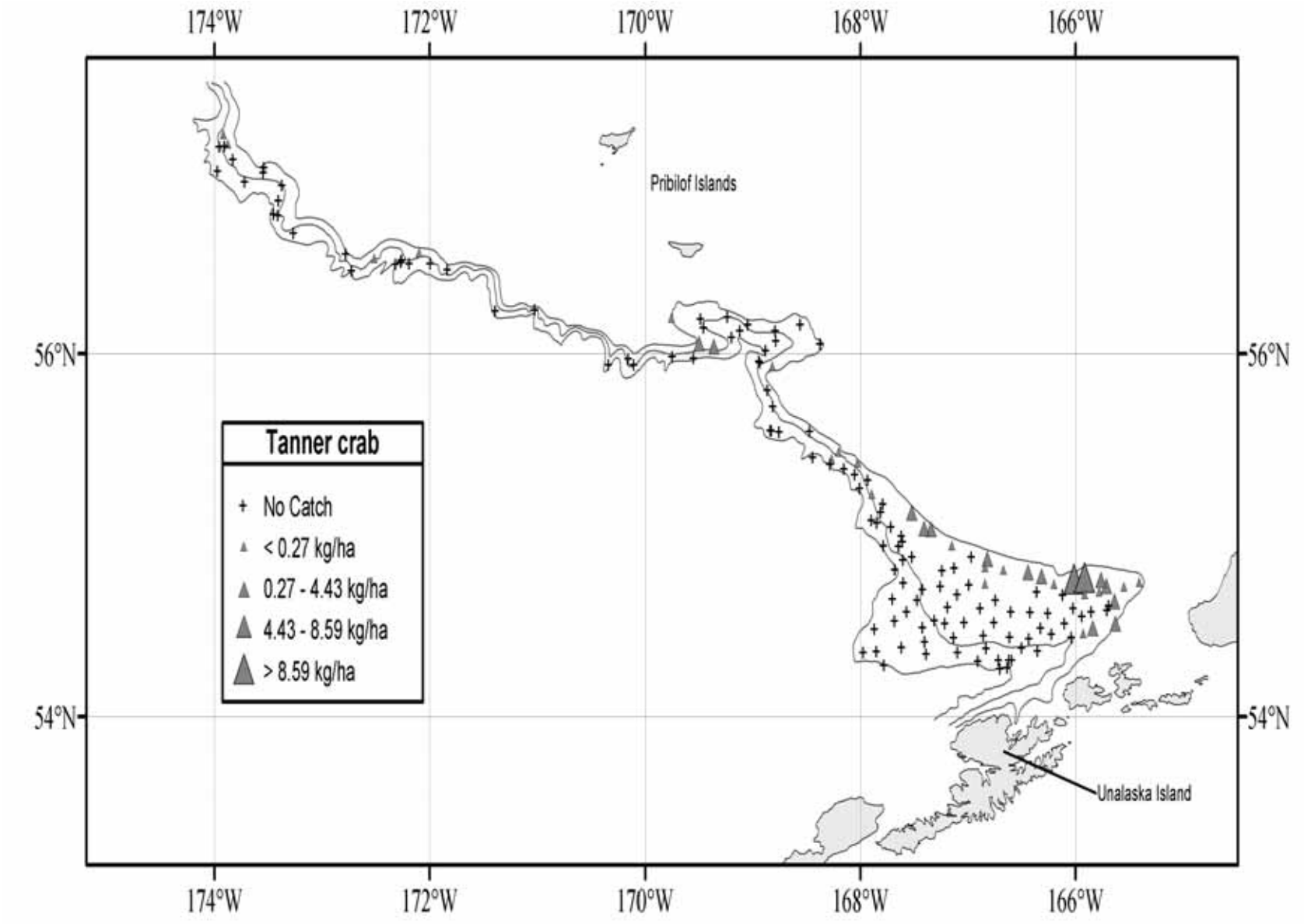

Figure 73. Continued.

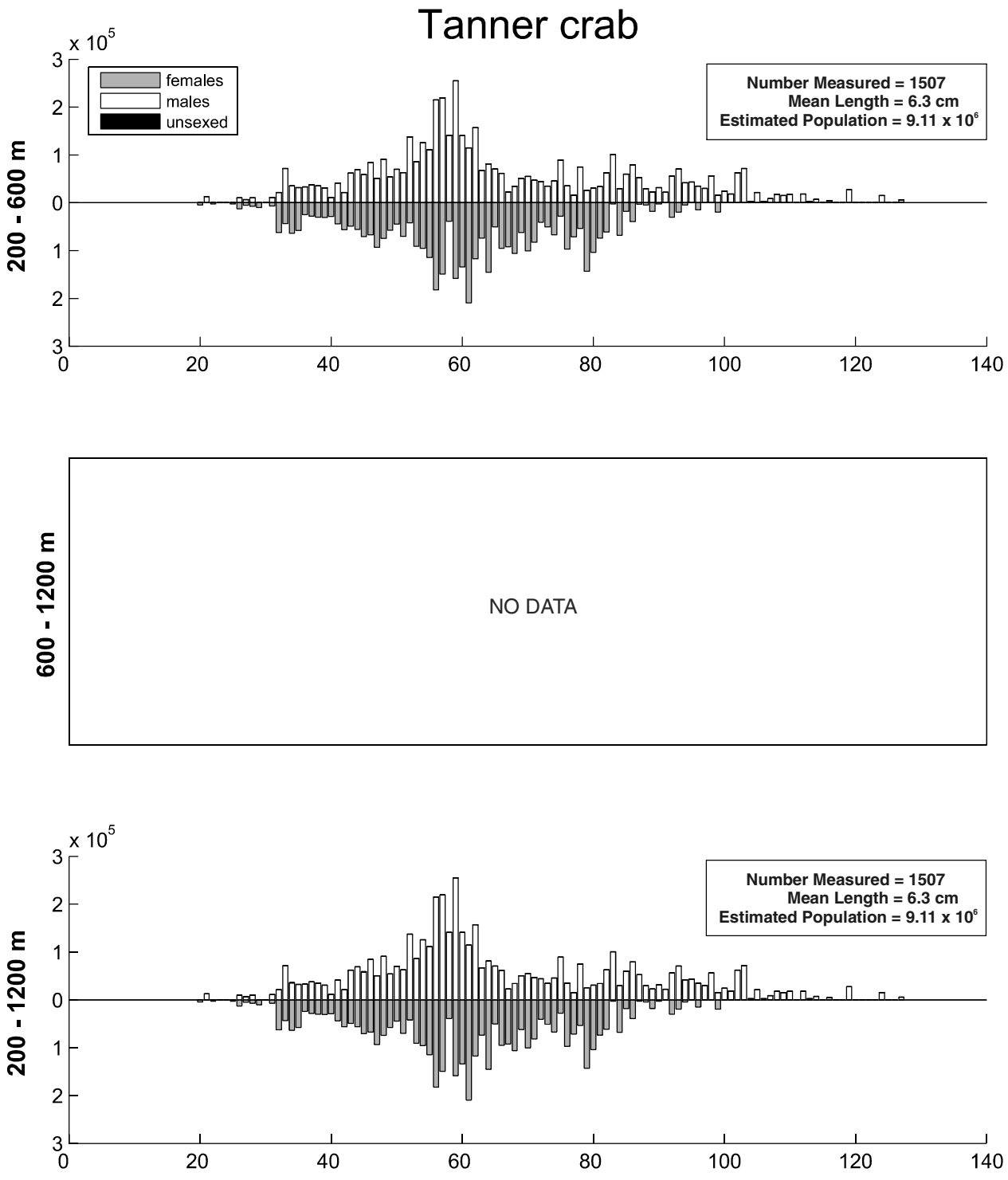

Figure 74. Size composition of the estimated Tanner crab population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total carapace width in millimeters while the ordinate represents the estimated total population.

Table 45. Abundance estimates by subarea and depth strata for snow crab (*Chionoecetes opilio*) from the 2004 BSS survey.

Chionoecetes opilio **snow crab**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	2.93E+00	1.24E+04	3.19E+00	5.82E+07	7.30E-03	3.09E-02
	400-600	5.38E+00	3.07E+04	1.00E+01	3.37E+08	1.32E-02	7.56E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	3.13E+00	2.12E+04	6.71E+00	3.43E+08	2.70E-02	1.83E-01
	400-600	6.43E-01	3.35E+03	4.13E-01	1.12E+07	9.12E-03	4.75E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	3.41E-01	3.97E+03	1.16E-01	1.57E+07	3.85E-03	4.48E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	4.07E+02	7.75E+05	1.57E+05	5.33E+11	3.29E+00	6.27E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.76E+01	2.40E+05	5.32E+01	7.97E+09	6.79E-02	9.25E-01
	400-600	9.93E-01	8.87E+03	9.86E-01	7.86E+07	5.82E-03	5.20E-02
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**4.38E+02**	**1.10E+06**	**1.57E+05**	**5.42E+11**	**1.38E-01**	**3.33E-01**

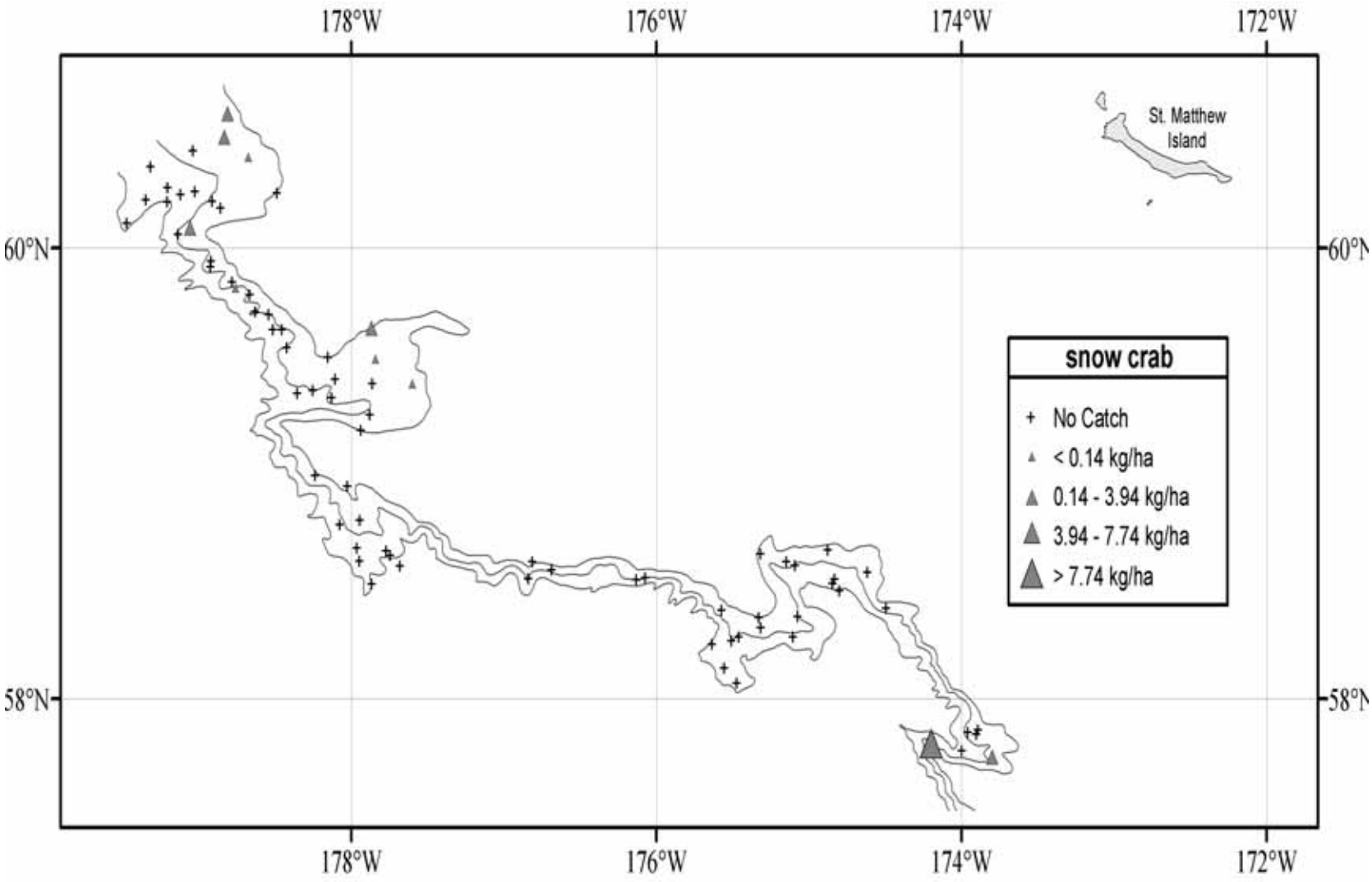

Figure 75. Distribution and relative abundance of snow crab from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

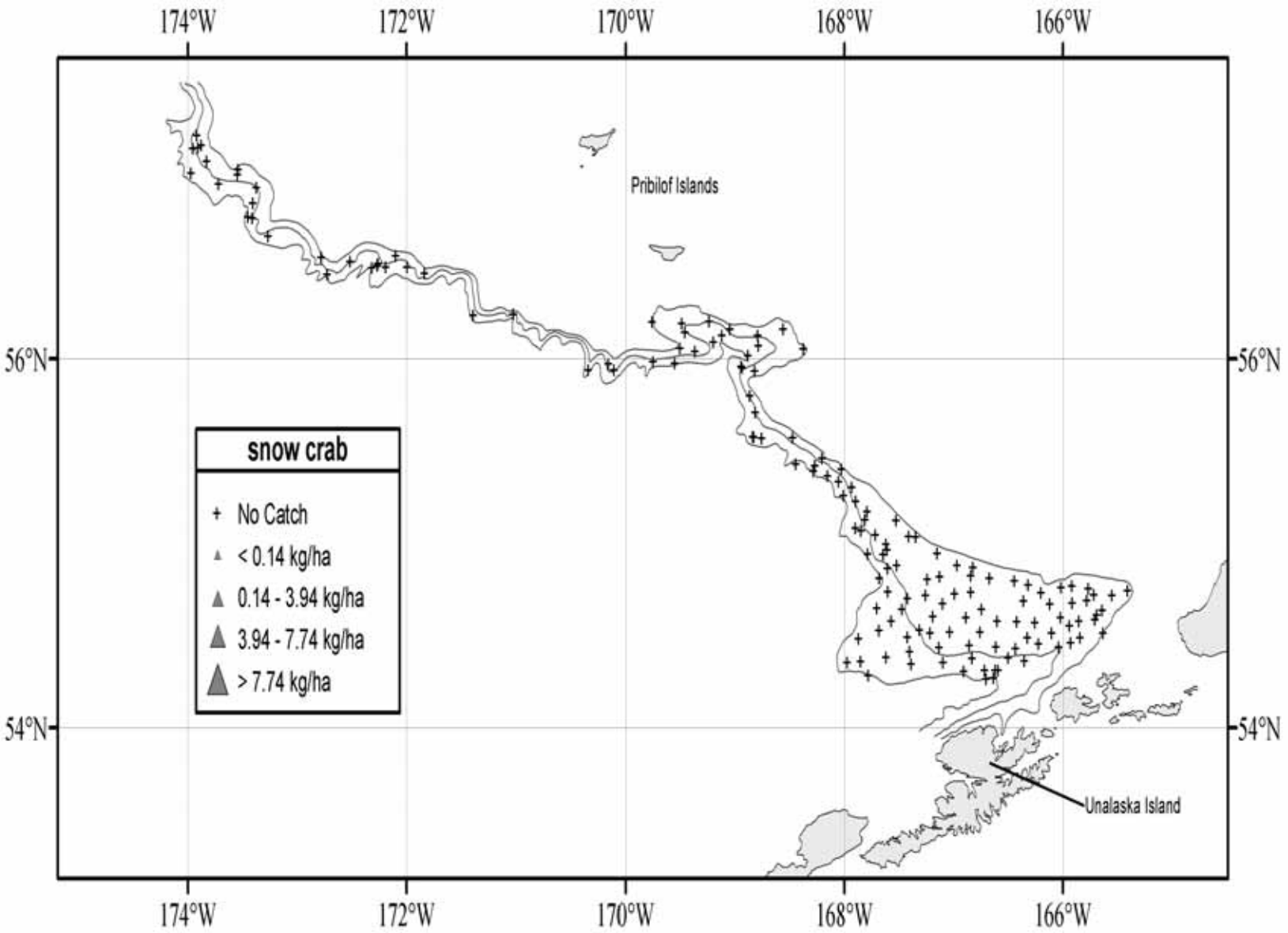

Figure 75. Continued.

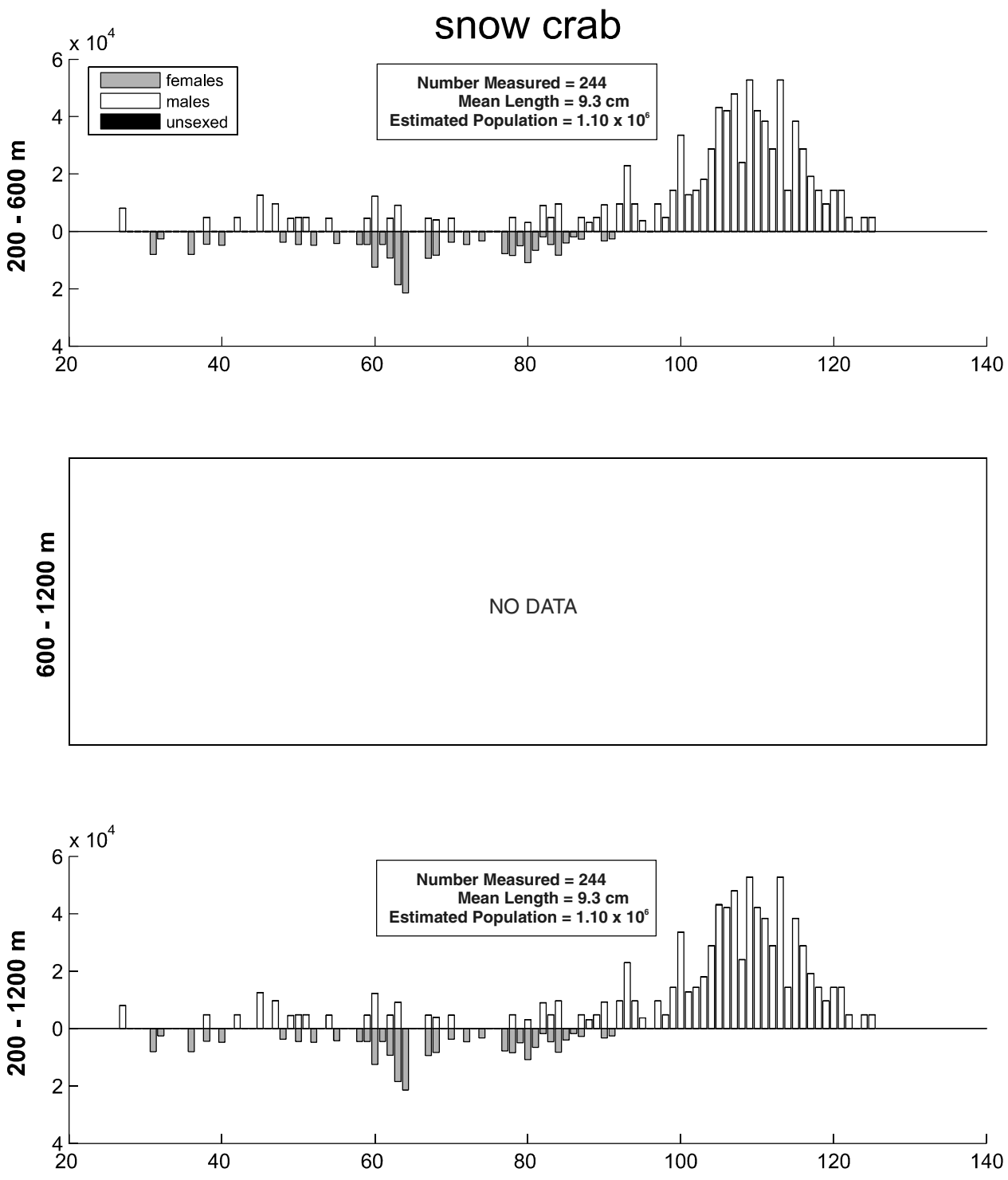

Figure 76. Size composition of the estimated snow crab population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total carapace width in millimeters while the ordinate represents the estimated total population.

Table 46. Abundance estimates by subarea and depth strata for grooved Tanner crab (*Chionoecetes tanneri*) from the 2004 BSS survey.

Chionoecetes tanneri **grooved Tanner crab**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	2.72E+02	6.92E+05	1.37E+04	1.28E+11	6.70E-01	1.70E+00
	600-800	8.05E+02	2.47E+06	1.13E+05	1.64E+12	4.62E+00	1.42E+01
	800-1,000	2.23E+02	3.24E+05	3.20E+04	3.89E+10	1.65E+00	2.39E+00
	1,000-1,200	3.21E+00	8.94E+03	9.30E+00	3.85E+07	2.90E-02	8.08E-02
2	200-400	4.85E-01	2.99E+03	2.35E-01	8.95E+06	4.19E-03	2.58E-02
	400-600	1.12E+02	2.96E+05	2.65E+03	1.57E+10	1.59E+00	4.20E+00
	600-800	9.22E+01	1.94E+05	2.35E+03	1.56E+10	1.56E+00	3.28E+00
	800-1,000	3.40E+02	7.24E+05	4.75E+04	1.91E+11	6.15E+00	1.31E+01
	1,000-1,200	1.83E+01	7.56E+04	1.47E+02	3.91E+09	3.41E-01	1.41E+00
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	3.98E+01	2.24E+05	3.78E+02	1.96E+10	4.49E-01	2.53E+00
	600-800	2.68E+02	6.76E+05	1.59E+04	1.05E+11	2.95E+00	7.43E+00
	800-1,000	1.80E+01	4.36E+04	3.01E+02	1.44E+09	2.46E-01	5.95E-01
	1,000-1,200	5.22E+00	1.01E+05	2.73E+01	1.02E+10	7.73E-02	1.50E+00
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	8.15E+01	1.69E+05	5.34E+03	1.82E+10	1.12E+00	2.31E+00
	600-800	1.52E+02	4.79E+05	1.24E+04	1.18E+11	2.18E+00	6.90E+00
	800-1,000	3.84E+01	1.71E+05	6.91E+02	1.12E+10	5.43E-01	2.42E+00
	1,000-1,200	9.02E+00	4.80E+04	6.89E+00	6.30E+08	1.36E-01	7.25E-01
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	9.15E+01	1.50E+05	3.43E+03	7.36E+09	2.15E+00	3.52E+00
	600-800	4.74E+00	1.43E+04	2.25E+01	2.03E+08	1.10E-01	3.30E-01
	800-1,000	4.26E+00	1.81E+04	5.06E+00	1.30E+08	7.72E-02	3.28E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	4.92E+00	9.32E+03	1.58E+01	4.03E+07	1.90E-02	3.59E-02
	400-600	1.89E+02	3.69E+05	4.04E+03	1.42E+10	1.11E+00	2.17E+00
	600-800	2.67E+02	7.84E+05	1.43E+04	1.10E+11	2.91E+00	8.55E+00
	800-1,000	3.65E+01	1.41E+05	6.49E+02	1.22E+10	5.66E-01	2.19E+00
	1,000-1,200	2.29E+00	1.91E+04	5.25E+00	3.65E+08	4.62E-02	3.85E-01
All Areas and Depths Combined		**3.08E+03**	**8.21E+06**	**2.69E+05**	**2.46E+12**	**9.23E-01**	**2.47E+00**

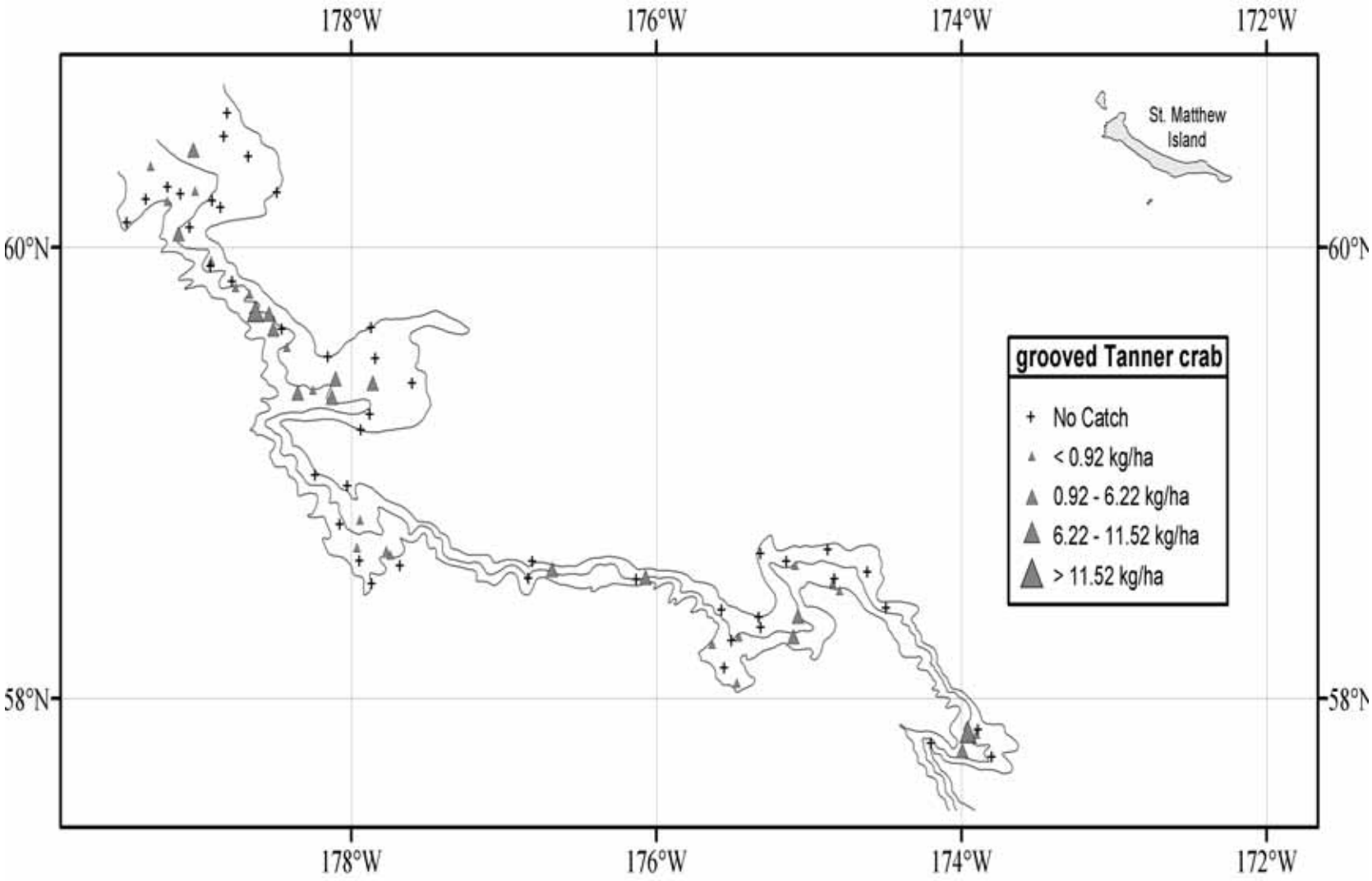

Figure 77. Distribution and relative abundance of grooved Tanner crab from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

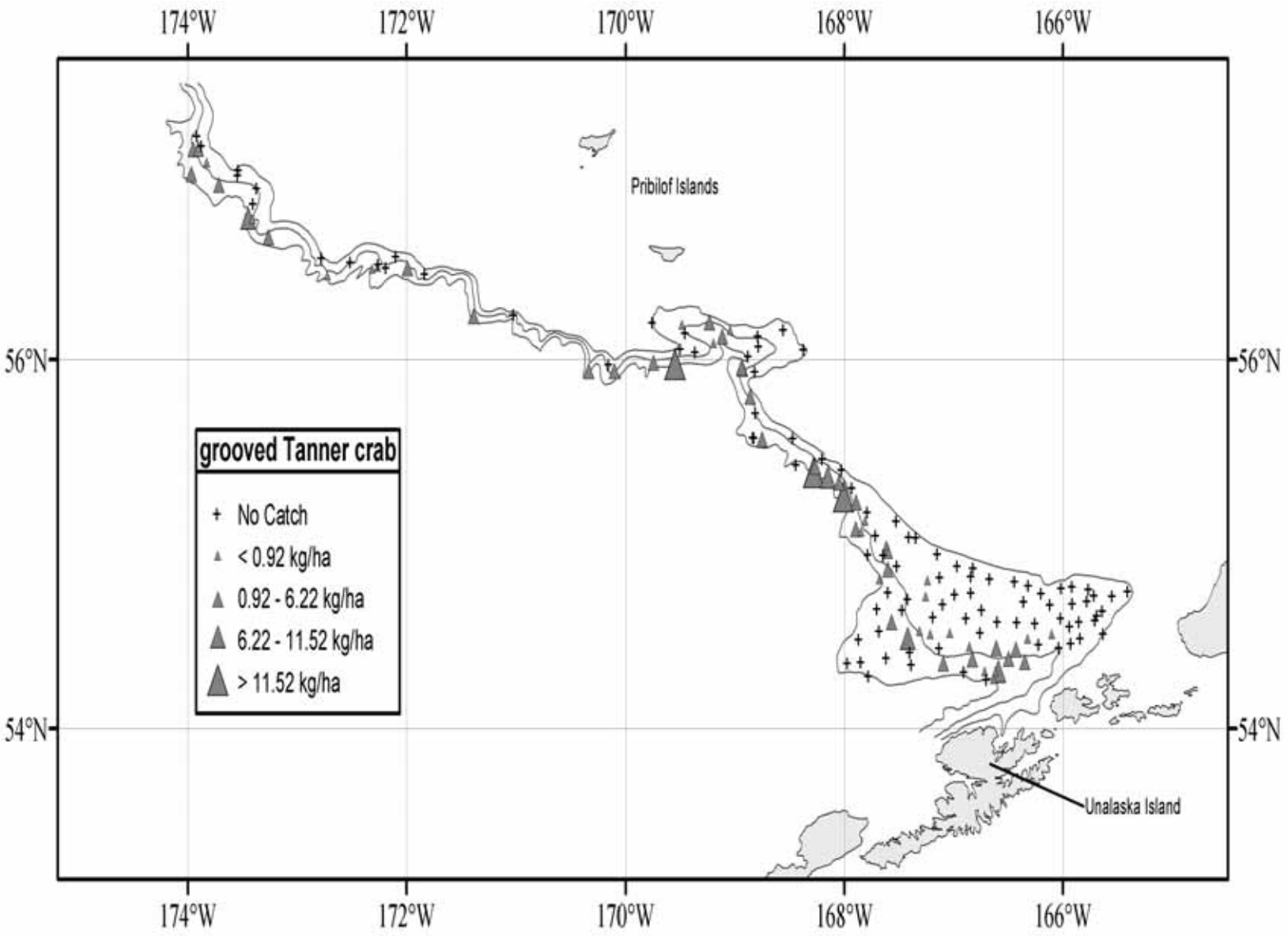

Figure 77. Continued.

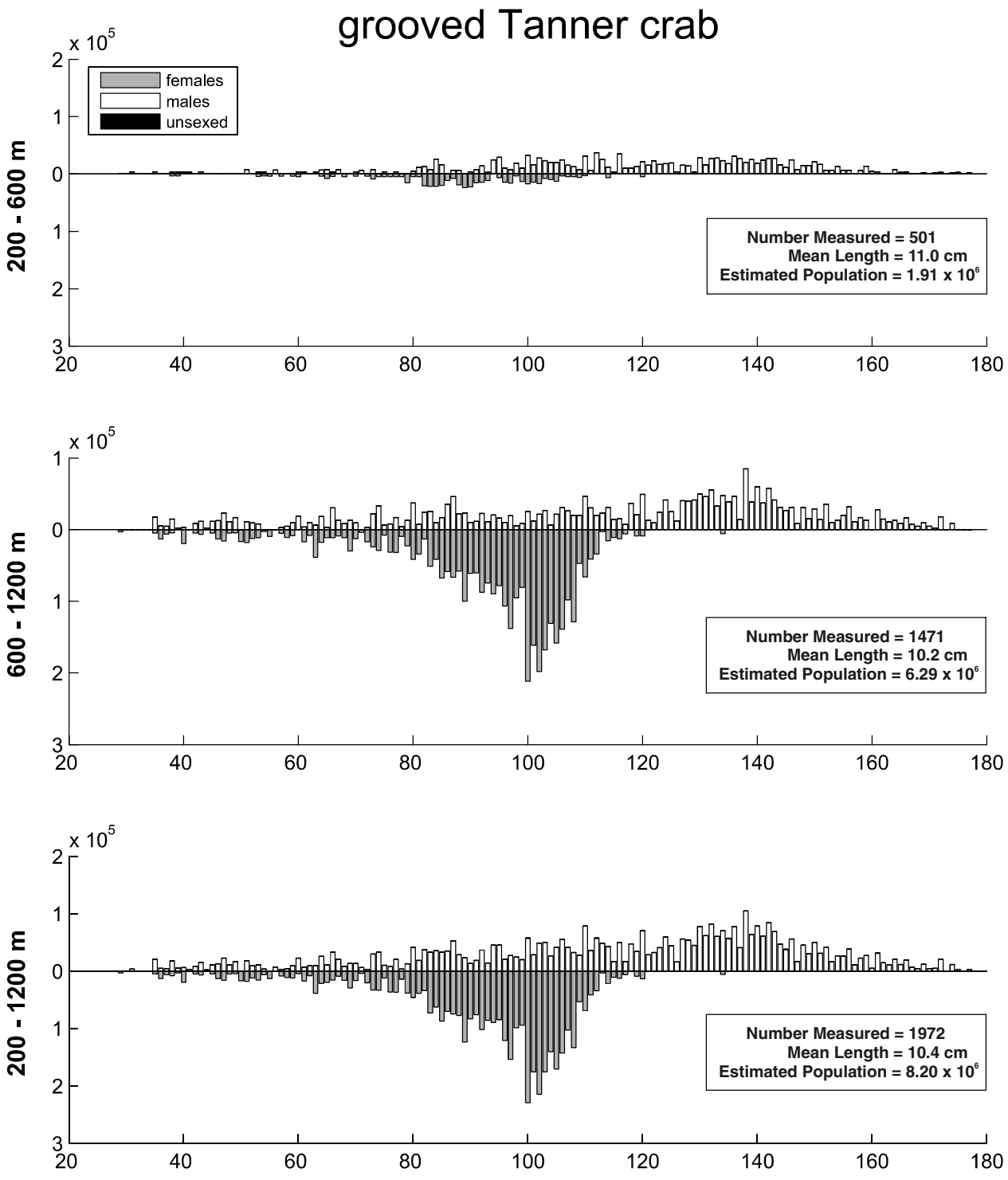

Figure 78. Size composition of the estimated grooved Tanner crab population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total carapace width in millimeters while the ordinate represents the estimated total population.

Table 47. Abundance estimates by subarea and depth strata for golden king crab (*Lithodes aequispina*) from the 2004 BSS survey.

Lithodes aequispina **golden king crab**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	4.21E+00	3.05E+03	1.77E+01	9.29E+06	1.05E-02	7.60E-03
	400-600	4.52E+01	1.16E+05	1.32E+02	1.32E+09	1.11E-01	2.85E-01
	600-800	1.43E+01	2.15E+04	5.02E+01	1.01E+08	8.22E-02	1.23E-01
	800-1,000	1.27E+00	3.38E+03	1.62E+00	1.14E+07	9.38E-03	2.50E-02
	1,000-1,200	5.69E-02	2.84E+03	3.24E-03	8.09E+06	5.14E-04	2.57E-02
2	200-400	5.26E+02	4.32E+05	8.61E+04	5.26E+10	4.55E+00	3.73E+00
	400-600	2.20E+02	3.62E+05	1.04E+04	2.39E+10	3.12E+00	5.13E+00
	600-800	6.69E+01	6.16E+04	1.53E+03	1.89E+09	1.13E+00	1.04E+00
	800-1,000	3.99E+00	6.14E+03	1.59E+01	3.77E+07	7.22E-02	1.11E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	2.54E+01	8.99E+03	2.69E+02	3.65E+07	2.81E-01	9.95E-02
	400-600	1.27E+01	1.66E+04	7.60E+01	1.11E+08	1.44E-01	1.88E-01
	600-800	9.91E+00	1.97E+04	8.07E+01	1.16E+08	1.09E-01	2.16E-01
	800-1,000	2.80E+00	2.25E+04	7.83E+00	5.04E+08	3.82E-02	3.07E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	1.21E+02	9.79E+04	1.94E+03	1.15E+09	9.80E-01	7.92E-01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	1.25E+01	8.91E+03	1.56E+02	7.94E+07	2.95E-01	2.10E-01
	400-600	7.50E+00	1.02E+04	5.62E+01	1.05E+08	1.76E-01	2.41E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	2.02E+00	4.62E+03	4.06E+00	2.14E+07	7.76E-03	1.78E-02
	400-600	2.21E+01	4.13E+04	3.09E+02	6.34E+08	1.29E-01	2.42E-01
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**1.10E+03**	**1.24E+06**	**1.01E+05**	**8.26E+10**	**3.81E-01**	**4.20E-01**

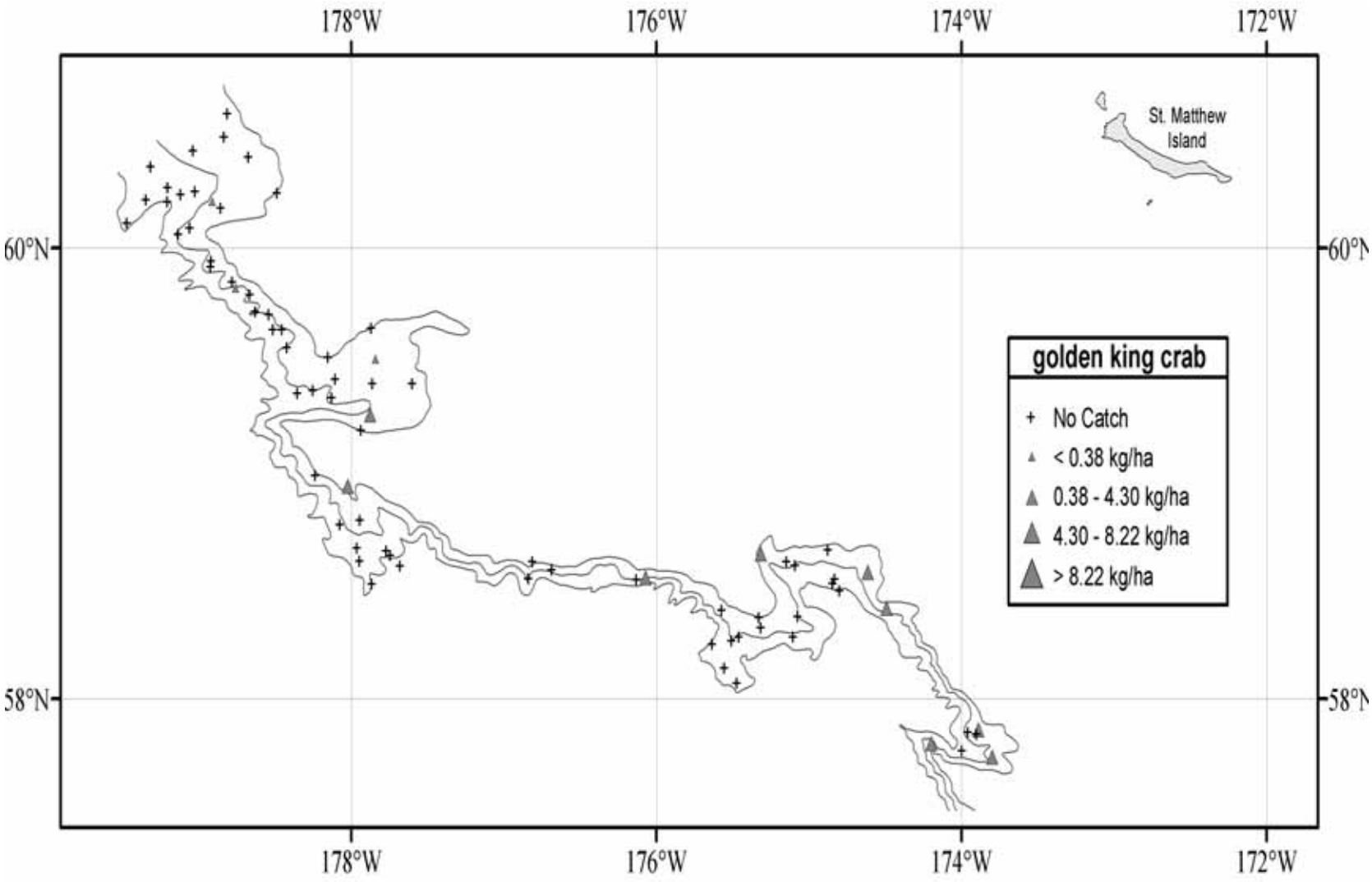

Figure 79. Distribution and relative abundance of golden king crab from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

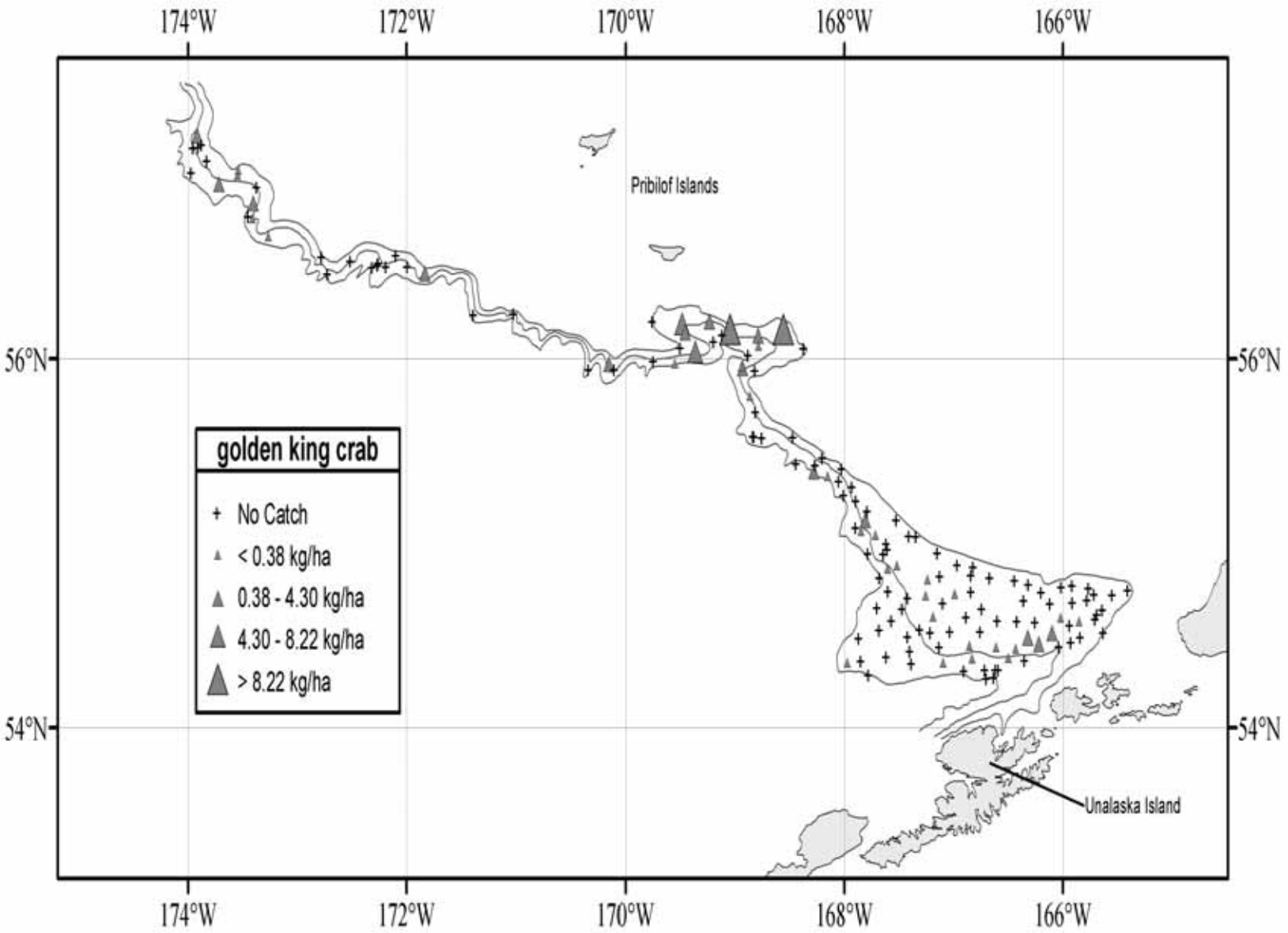

Figure 79. Continued.

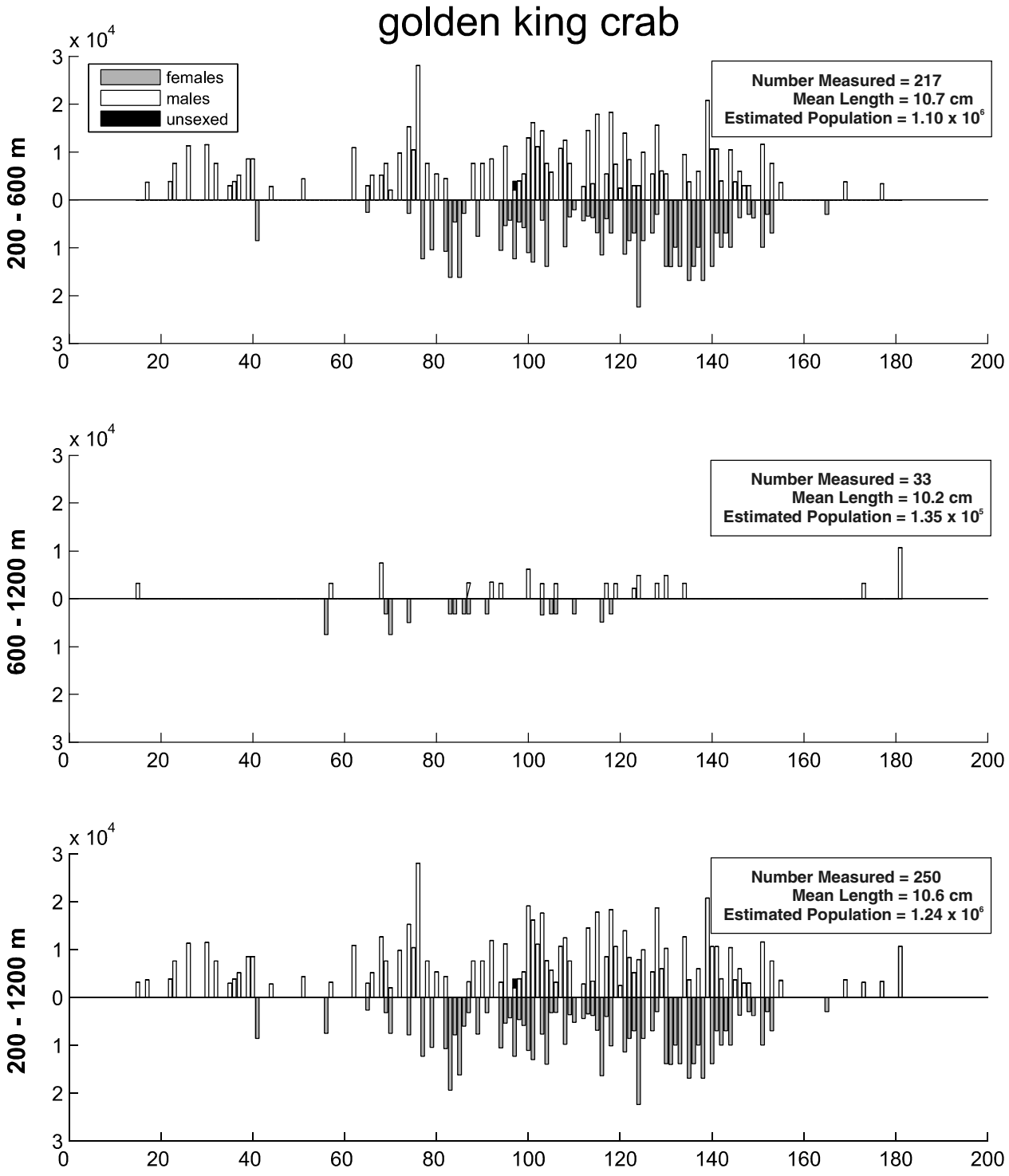

Figure 80. Size composition of the estimated golden king crab population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total carapace length from the eye socket in millimeters while the ordinate represents the estimated total population.

Table 48. Abundance estimates by subarea and depth strata for scarlet king crab (*Lithodes couesi*) from the 2004 BSS survey.

Lithodes couesi **scarlet king crab**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	1.72E+01	3.04E+04	2.97E+02	9.26E+08	1.27E-01	2.25E-01
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	3.29E+01	5.63E+04	3.54E+02	1.03E+09	5.56E-01	9.52E-01
	800-1,000	7.03E+00	1.47E+04	4.94E+01	2.15E+08	1.27E-01	2.65E-01
	1,000-1,200	1.39E+01	1.80E+04	2.31E+01	3.64E+07	2.59E-01	3.36E-01
3	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	3.77E+00	3.83E+03	1.42E+01	1.47E+07	4.15E-02	4.21E-02
	800-1,000	8.43E+00	1.50E+04	7.10E+01	2.24E+08	1.15E-01	2.04E-01
	1,000-1,200	1.29E+01	1.64E+04	3.11E+01	1.63E+05	1.91E-01	2.43E-01
4	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	8.25E+00	1.76E+04	6.81E+01	3.10E+08	1.19E-01	2.54E-01
	800-1,000	3.13E+01	1.17E+05	5.73E+02	1.12E+10	4.42E-01	1.66E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	5.88E+00	8.55E+03	3.46E+01	7.32E+07	1.36E-01	1.98E-01
	800-1,000	4.11E+00	9.37E+03	1.60E+01	2.23E+07	7.45E-02	1.70E-01
	1,000-1,200	1.65E-01	7.49E+03	2.71E-02	5.60E+07	2.89E-03	1.31E-01
6	200-400	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	1.09E+02	1.20E+05	9.71E+03	1.05E+10	1.19E+00	1.31E+00
	800-1,000	1.36E+02	1.87E+05	1.74E+03	3.49E+09	2.10E+00	2.90E+00
	1,000-1,200	1.45E+02	1.63E+05	7.40E+03	1.38E+10	2.92E+00	3.28E+00
All Areas and Depths Combined		**5.36E+02**	**7.84E+05**	**2.04E+04**	**4.19E+10**	**1.38E-01**	**2.05E-01**

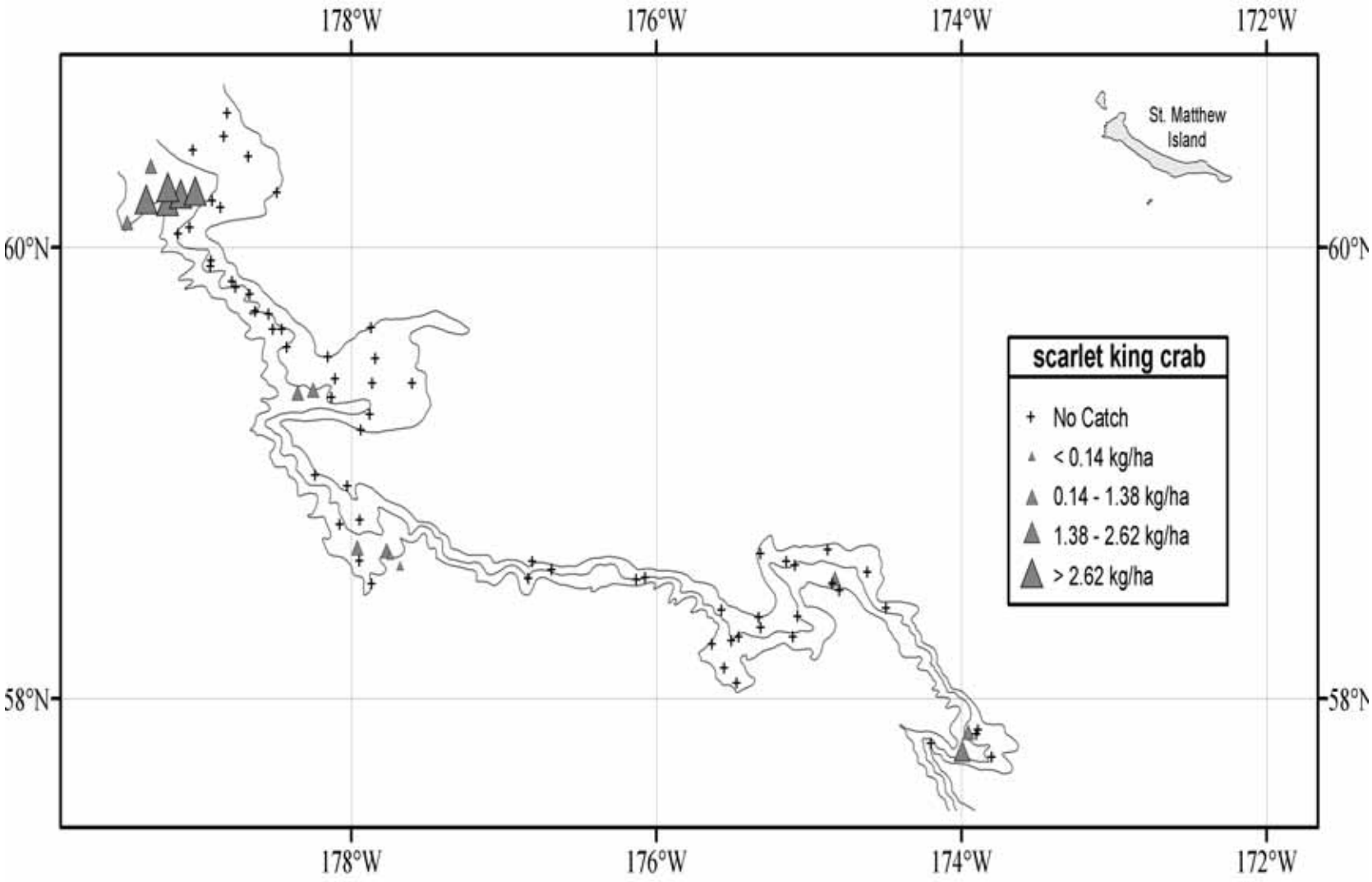

Figure 81. Distribution and relative abundance of scarlet king crab from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

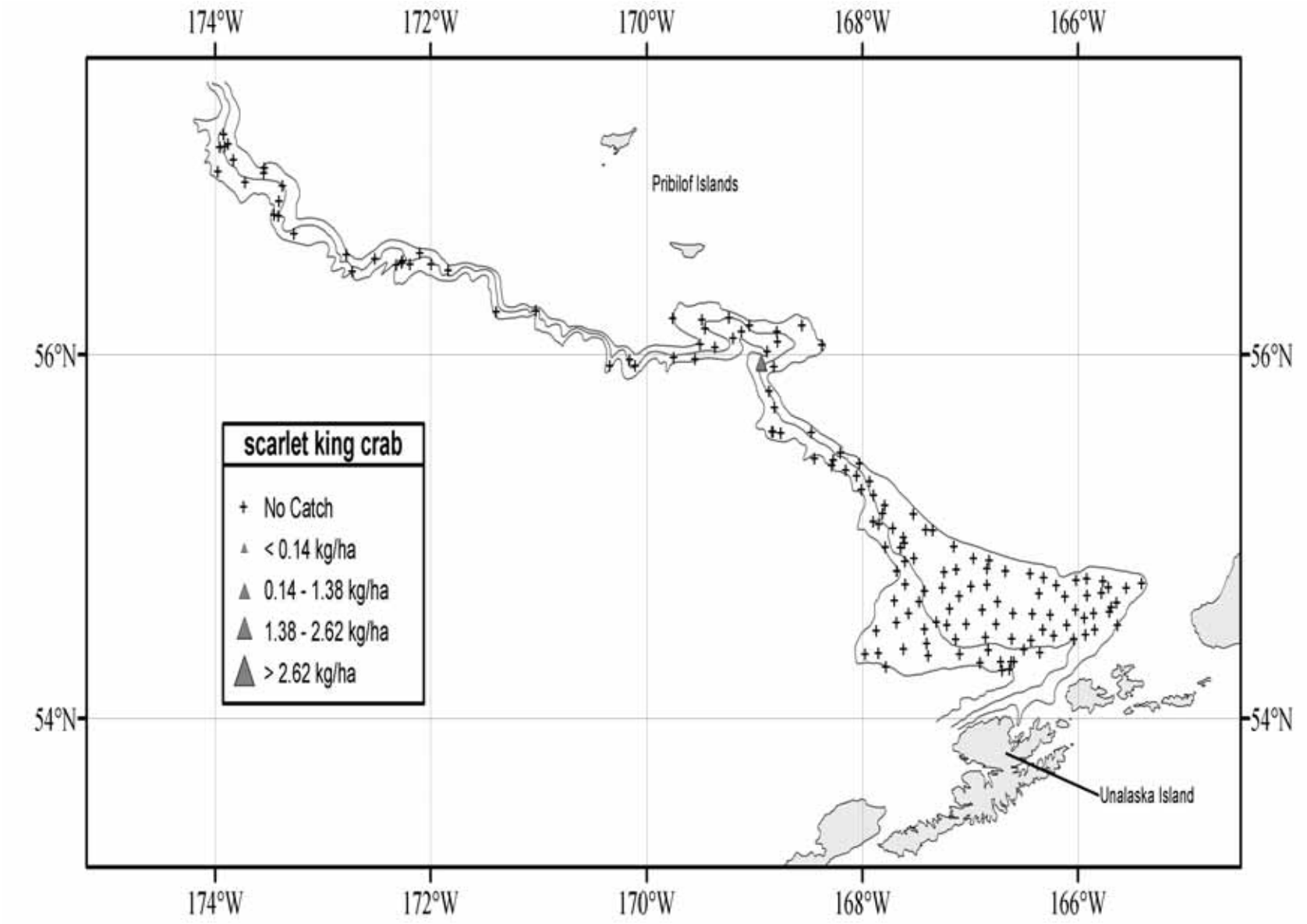

Figure 81. Continued.

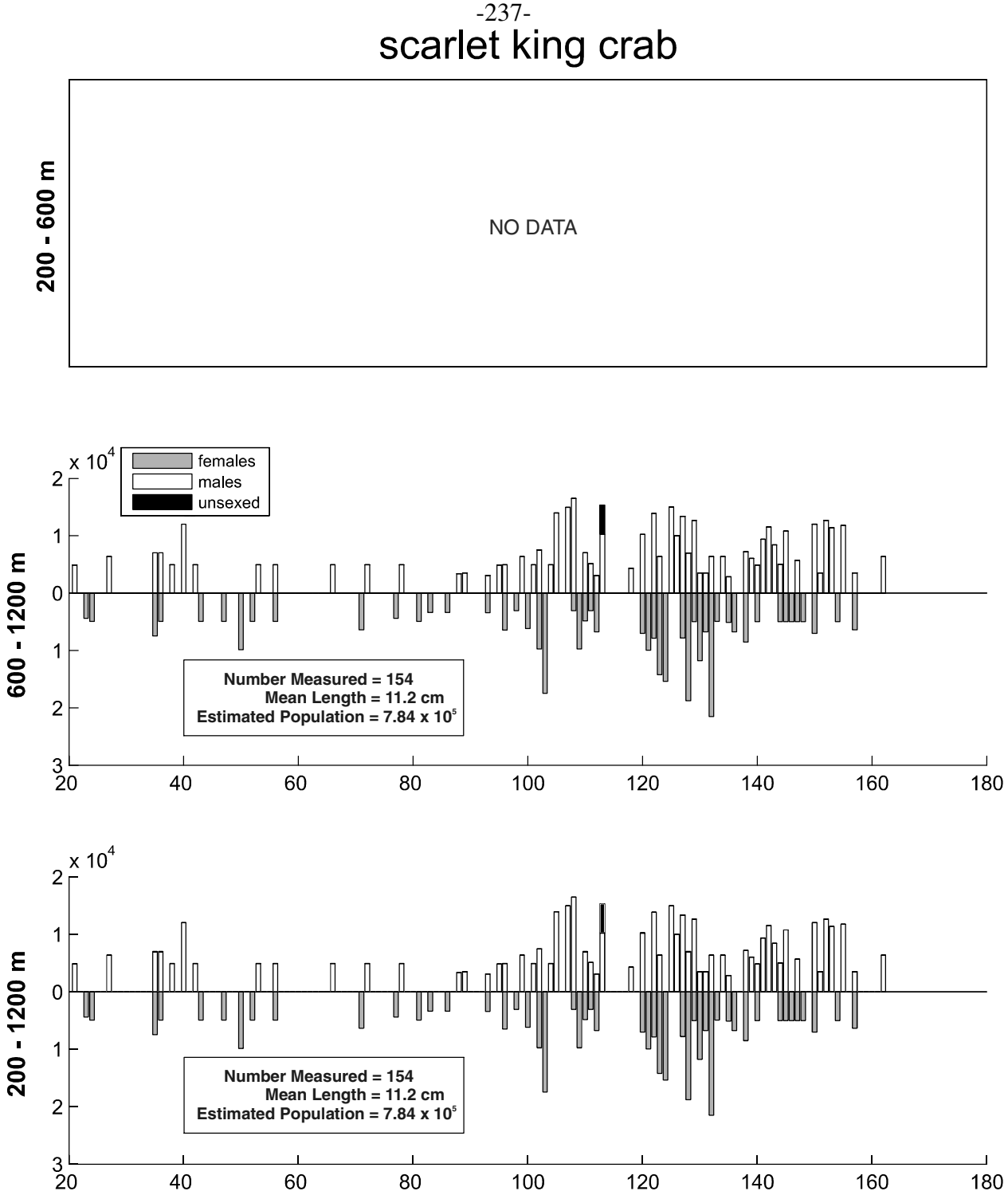

Figure 82. Size composition of the estimated scarlet king crab population from the 2004 BSS survey for all subareas by depth. The abscissa is scaled as total carapace length from the eye socket in millimeters while the ordinate represents the estimated total population.

Table 49. Abundance estimates by subarea and depth strata for northern shrimp (*Pandalus borealis*) from the 2004 BSS survey.

Pandalus borealis **northern shrimp**

Subarea	Depth Strata (m)	Biomass (t)	Population	Variance of Biomass (t)	Variance of Population	Average CPUE (kg/ha)	Average CPUE (no./ha)
1	200-400	2.45E+02	3.68E+07	2.50E+03	5.10E+13	6.09E-01	9.16E+01
	400-600	3.67E+00	4.58E+05	1.30E+01	2.03E+11	9.04E-03	1.13E+00
	600-800	1.74E-01	2.90E+03	3.02E-02	8.39E+06	9.98E-04	1.66E-02
	800-1,000	5.49E-01	2.79E+05	3.01E-01	7.76E+10	4.05E-03	2.06E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	200-400	4.42E+01	7.75E+06	2.83E+02	9.34E+12	3.82E-01	6.69E+01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	200-400	6.19E+01	1.05E+07	8.34E+02	2.71E+13	6.85E-01	1.16E+02
	400-600	2.10E+00	3.47E+05	3.86E+00	9.99E+10	2.37E-02	3.91E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	200-400	6.65E+01	9.83E+06	2.44E+02	5.98E+12	5.38E-01	7.95E+01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	200-400	2.97E+00	4.27E+05	3.71E+00	6.70E+10	7.00E-02	1.01E+01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	200-400	1.71E+02	2.29E+07	1.51E+03	2.87E+13	6.60E-01	8.81E+01
	400-600	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	600-800	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	800-1,000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1,000-1,200	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
All Areas and Depths Combined		**5.98E+02**	**8.92E+07**	**5.40E+03**	**1.23E+14**	**1.91E-01**	**2.88E+01**

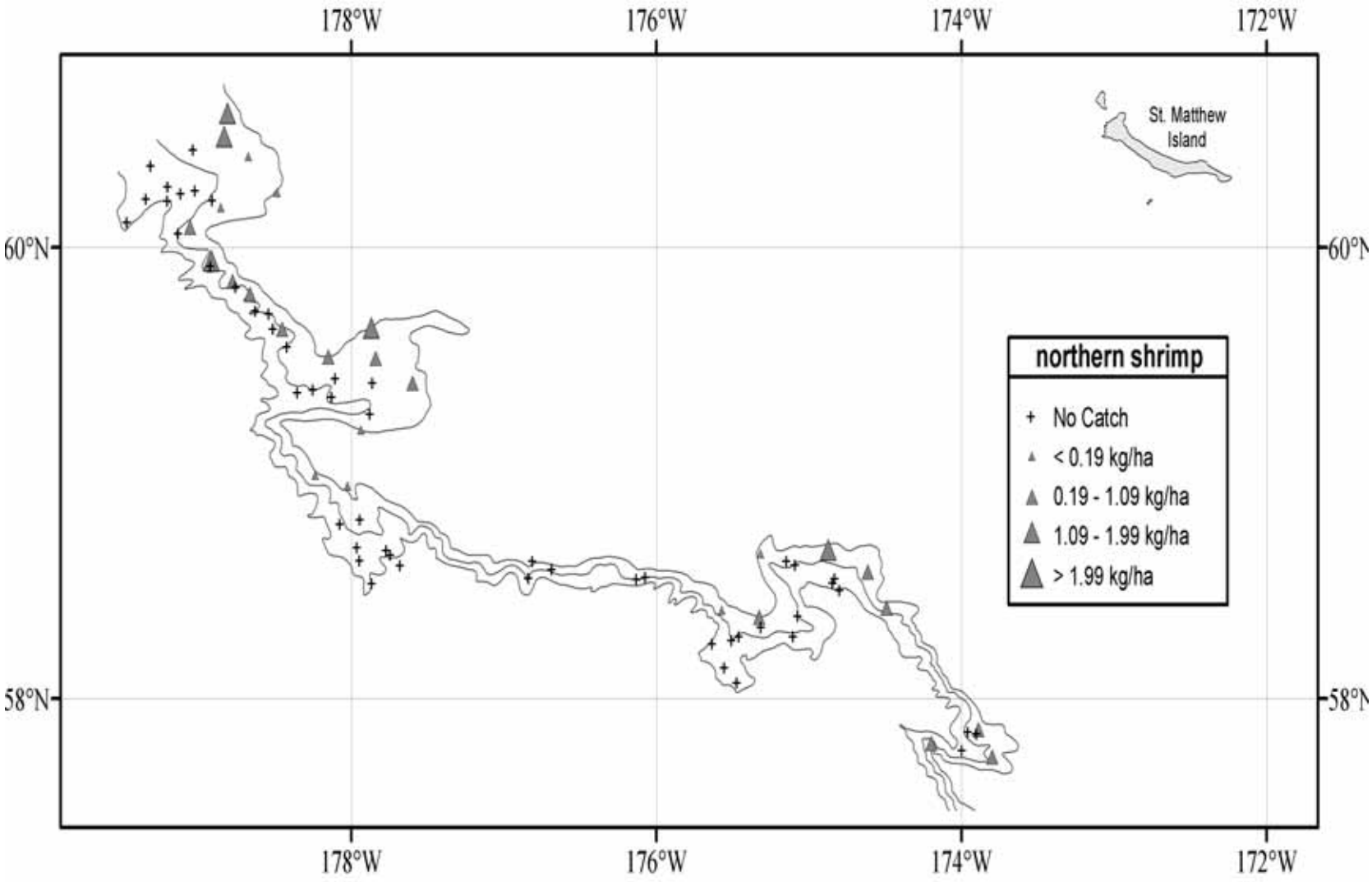

Figure 83. Distribution and relative abundance of northern shrimp from the 2004 BSS survey. Relative abundance is categorized by no catch, sample CPUE less than the mean CPUE, between the mean CPUE and two standard deviations above the mean, between two and four standard deviations above the mean CPUE, and greater than four standard deviations above the mean CPUE.

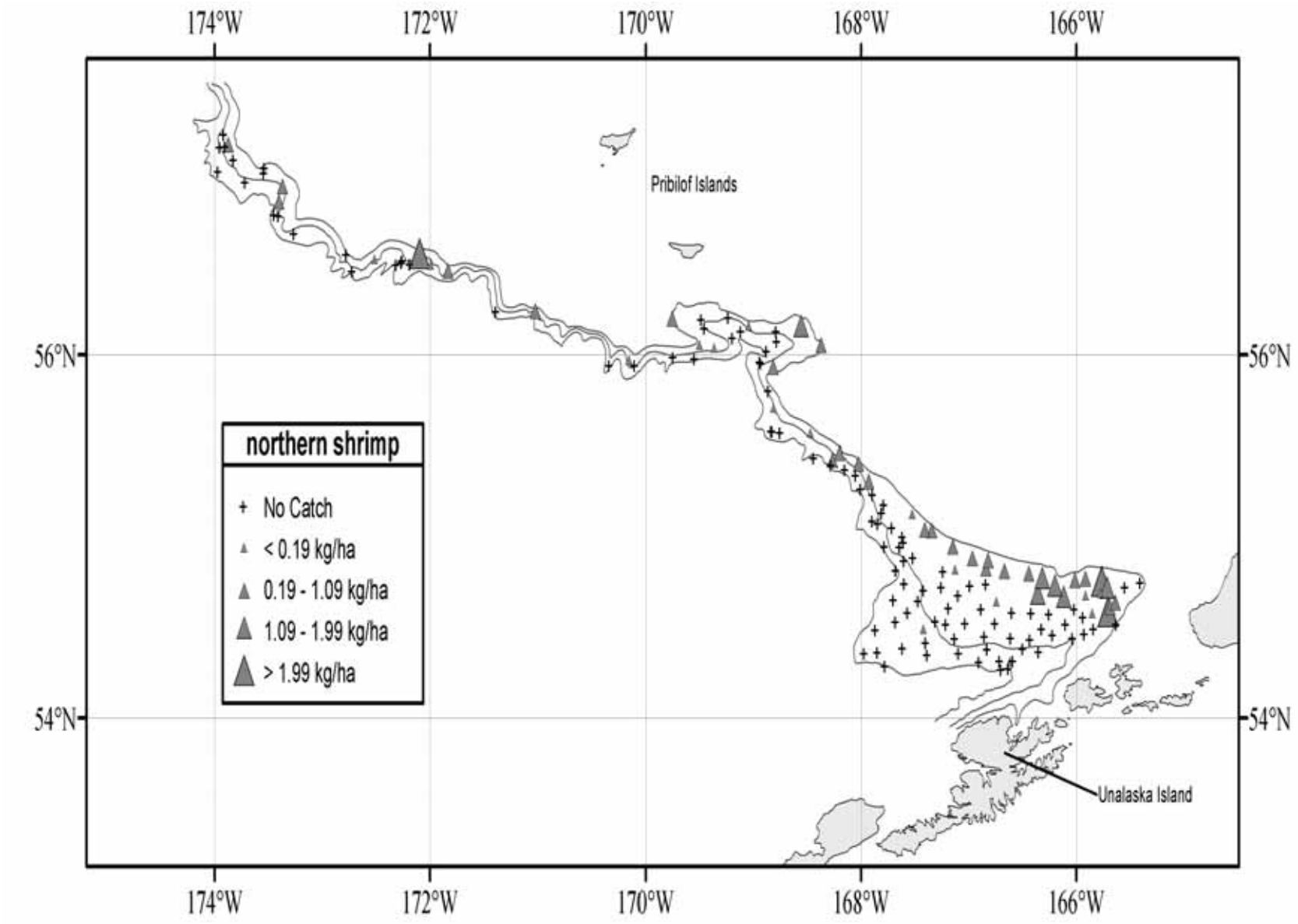

Figure 83. Continued.

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ACKNOWLEDGMENTS

We would like to sincerely thank all the scientific survey participants for all their hard work during the 2004 BSS survey. Thanks also goes to the skipper and crew of the F/V *Northwest Explorer*. Their cooperation and knowledge was greatly appreciated. A special thanks to Stan Kotwicki for stepping in as Chief Scientist during Leg three and doing an excellent job.

APPENDIX A

Haul Log

The following haul log details the location, depth, time, temperature and net mensuration parameters of each haul conducted during the 2004 BSS survey. The haul log summarizes each haul's catch by weight (kg) with a breakdown of the species composition and the individual species weight or a grouped weight for less abundant species. Table A1 describes the trawl warp/bottom depth ratio used for each trawl. Table A2 lists the number of trawl hauls completed by trawl performance code during the survey. Zero and positive performance codes are considered successful tows and were used for the standard abundance estimates. Negative tows and tows greater than 1,200 m or less than 200 m were not included in the estimates of abundance. Four hauls have been excluded from the haul log due to incomplete haul and catch data (hauls 80, 81, 96, 187). Table A3 is the detailed haul log for every haul completed with data during the survey. For quick reference, the unsuccessful tows and tows not used for abundance estimates are shaded in gray in the haul log.

Table A1. Scope ratio table used during the 2004 BSS survey.

Bottom depth		Warp length	
Minimum (m)	**Maximum (m)**	**Meters**	**Fathoms**
146	176	550	301
177	206	600	328
207	237	650	355
238	267	700	383
269	298	750	410
299	328	800	437
330	358	850	465
360	389	900	492
390	420	950	519
421	450	1000	547
451	481	1050	574
482	511	1100	601
512	542	1150	628
543	572	1200	656
573	603	1250	683
604	633	1300	710
634	664	1350	738
665	694	1400	765
695	725	1450	792
726	755	1500	820
756	786	1550	847
787	816	1600	874
817	847	1650	901
848	877	1700	930
878	908	1750	957
909	938	1800	984
939	969	1850	1012
970	999	1900	1039
1000	1030	1950	1066
1031	1060	2000	1094
1061	1091	2050	1121
1091	1121	2100	1148
1122	1152	2150	1176
1152	1182	2200	1203
1183	1213	2250	1230
1213	1243	2300	1258
1244	1274	2350	1285

Table A2. Performance codes assigned to trawl hauls conducted on the 2004 BSS survey. Performance codes zero or greater are considered successful hauls and codes less than zero are unsuccessful hauls.

Performance code	Performance code explanation	Number of hauls
5.3	Satisfactory performance, weather affected trawl performance	1
5.1	Satisfactory performance, net came off bottom	3
5	Satisfactory performance, unspecified gear performance problem	4
4.2	Satisfactory performance, caught large quantity of mud	2
4.1	Satisfactory performance, caught large rock	7
3.13	Satisfactory performance, caught Alaskan crab pot	1
1.12	Satisfactory performance, hauled back early due to minor hang	1
0	Good performance	213
-1.2	unsatisfactory performance, major hang, stopped forward progress of vessel	2
-2.4	unsatisfactory performance, belly damage	1
-5.1	Unsatisfactory performance, net came off bottom	1
-6	Unsatisfactory performance, net improperly configured, unspecified reason	1
-6.21	unsatisfactory performance, wire out less than recommended scope	2
-6.3	unsatisfactory performance, unspecified mechanical problem	1

Table A3. Haul log for all trawls completed during the 2004 BSS survey.

Haul	1	2	3	4	5	6	7
Haul Date	6-Jun-2004	6-Jun-2004	7-Jun-2004	7-Jun-2004	7-Jun-2004	7-Jun-2004	8-Jun-2004
Tow Start Latitude	54.51341	54.61066	54.57832	54.68975	54.71818	54.74322	54.51353
Tow Start Longitude	-165.63091	-165.69009	-165.85249	-165.77969	-165.5506	-165.408	-166.1006
Tow End Latitude	54.53591	54.58242	54.58418	54.6908	54.7086	54.72005	54.50338
Tow End Longitude	-165.61	-165.68449	-165.90849	-165.8201	-165.5126	-165.3958	-166.15021
Station ID	2	29	82	30	4	5	78
Bottom Depth (m)	248	355	421	306	256	202	486
Stratum Designation	11	11	12	11	11	11	12
Tow Duration (% of Hour)	0.54	0.69	0.75	0.55	0.52	0.55	0.7
Distance of Tow (nmi)	2.842	3.159	3.690	2.612	2.675	2.693	3.404
Average Net Width (m)	12.71	15.44	16.08	18.10	15.44	14.66	15.84
Performance Code	0	0	0	0	0	0	0
Surface Temperature (°C)	4.5	6.4	6.4	6.2	6.5	6	6.1
Bottom Temperature (°C)	4	3.9	3.8	4	4	4.1	3.7
Pacific Sleeper Shark							7.24
Bering Skate		2.14	2.19	16.83	3.82	23.50	20.57
Mud Skate	3.81	7.97				2.20	
Roughtail Skate							
Alaska Skate					9.80	100.98	
Aleutian Skate	3.85	43.72	3.39	34.59	45.84	204.69	47.62
Commander Skate							3.50
Whiteblotched Skate							
Whitebrow Skate			2.96	13.18			2.83
Other Skates	2.58	1.36	0.80	0.07	1.44	0.26	0.10
Arrowtooth Flounder	129.46	106.40	51.25	662.93	180.36	255.03	82.58
Kamchatka Flounder	0.62	14.71	15.14	2.24			26.24
Greenland Turbot		120.89	164.70	12.86			176.10
Pacific Halibut	3.78				6.45	27.97	
Flathead Sole	6.56	54.32	63.84	5.01	45.25		17.66
Rex Sole	191.34	36.05	29.58	31.38	56.38	43.65	0.38
Other Flatfish	102.49	1.71	2.50	1.93	13.89	47.94	
Pacific Grenadier							
Giant Grenadier							625.97
Popeye Grenadier							
Pacific Cod	98.06			12.68	6.62	2.64	
Walleye Pollock	1547.22	292.42	99.84	91.34	871.76	245.98	13.72
Blob Sculpin							
Bigmouth Sculpin	2.21	8.95				5.72	
Other Sculpins	6.02	20.33	5.80	19.74	4.09	28.75	4.34
Twoline Eelpout							1189.20
Ebony Eelpout			2.93				9.80
Black Eelpout		0.08	7.21	0.90			3.54
Other Eelpouts			0.00				0.02
Sablefish		50.80	152.48	33.86	28.82		70.86
Searcher							
Blacktail Snailfish							1.67
Other Snailfishes		3.22	0.59	19.68	3.60	10.01	1.32
Poachers	23.79	1.68	0.36	3.03	6.24	2.19	0.64
Mesopelagic Fishes		0.07	0.93				
Other Fishes	2.47	1.95		2.64		1.29	1.49
Shortspine Thornyhead			20.73				69.94
Rougheye Rockfish		3.96	5.98				
Pacific Ocean Perch	41.28	10.27	4.60	34.48	6.61	3.02	0.81
Shortraker Rockfish			0.43				
Northern Rockfish							
Grooved Tanner Crab							0.30
Tanner Crab	6.07			0.65	0.91	0.75	
Triangle Tanner Crab			11.66				8.61
Scarlet King Crab							
Golden King Crab			0.49				2.27
Hermit Crabs	0.10		1.51	0.17	0.07	0.05	1.29
Snails	0.04	0.49	23.29	2.47	0.14	0.63	31.24
Clams			0.04				
Octopus	1.26	10.22	7.91	1.41		11.60	1.89
Squid	1.35	58.26	13.38	2.18		0.15	13.25
Sea Anemones, Corals	0.01	11.70	56.82	5.23	0.42		4.19
Jellyfish			0.31				
Shrimps		7.78	1.82	0.51			
Seastars	0.02	0.86	23.33	3.81	0.36	0.31	31.56
Other Invertebrates	6.64	0.57	3.14	2.86	0.34	2.91	91.58
Haul Total Weight (kg)	**2181.04**	**872.88**	**781.92**	**1018.65**	**1293.19**	**1022.23**	**2564.34**

Table A3. Continued.

Haul	8	9	10	11	12	13	14	15
Haul Date	8-Jun-2004	8-Jun-2004	8-Jun-2004	9-Jun-2004	9-Jun-2004	9-Jun-2004	9-Jun-2004	10-Jun-2004
Tow Start Latitude	54.55195	54.59856	54.67689	54.68628	54.5744	54.3618	54.31271	54.52017
Tow Start Longitude	-165.9398	-166.0202	-165.9133	-166.3597	-166.4216	-166.3494	-166.5927	-166.7563
Tow End Latitude	54.55383	54.59259	54.67704	54.68728	54.57355	54.3615	54.31465	54.51911
Tow End Longitude	-165.9904	-166.0687	-165.8681	-166.3963	-166.47231	-166.40331	-166.55521	-166.7948
Station ID	83	79	32	44	77	104	125	66
Bottom Depth (m)	454	404	318	299	411	650	806	459
Stratum Designation	12	12	11	11	12	13	14	12
Tow Duration (% of Hour)	0.65	0.64	0.57	0.5	0.65	0.68	0.5	0.49
Distance of Tow (nmi)	3.284	3.210	2.918	2.364	3.285	3.506	2.456	2.499
Average Net Width (m)	15.44	15.84	15.44	15.44	15.84	15.86	16.19	15.84
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	6.8	6.5	6.2	6.7	6.6	6.5	6.8	6.5
Bottom Temperature (°C)	3.7	3.9	4	4	4	3.4	3	3.8
Pacific Sleeper Shark							3.96	
Bering Skate	7.13	6.02	20.14	7.40	15.18	4.70	1.42	
Mud Skate								
Roughtail Skate						12.13	7.82	
Alaska Skate								
Aleutian Skate	6.63	7.41	31.32	7.96	70.65	34.78	1.56	
Commander Skate						7.97		5.37
Whiteblotched Skate					6.17			
Whitebrow Skate	3.99		11.82		4.24	3.28		
Other Skates	0.03		0.03			0.02	0.10	0.02
Arrowtooth Flounder	35.82	96.74	424.58	552.90	61.54	8.25		6.95
Kamchatka Flounder	14.24	69.48	16.20	10.62	61.72	10.05	5.82	25.27
Greenland Turbot	124.08	240.23	12.66		46.92	276.44	54.66	68.24
Pacific Halibut	6.98	26.00	5.60	18.73	63.89	59.42		
Flathead Sole	35.66	57.80	3.02	53.52	124.36			81.32
Rex Sole	6.02	9.26	31.50	26.93	14.29			2.73
Other Flatfish	1.38	0.92	3.33	0.70				1.10
Pacific Grenadier								
Giant Grenadier	18.98				24.56	200.66	161.34	18.97
Popeye Grenadier						16.00	43.28	
Pacific Cod			5.20	3.83				
Walleye Pollock	9.13	250.78	33.22	23.02	11.06			0.58
Blob Sculpin								
Bigmouth Sculpin				2.80	7.40			
Other Sculpins	4.20	4.03	13.94	3.68	2.66	0.90		1.43
Twoline Eelpout	37.68				27.08	178.48	84.48	27.84
Ebony Eelpout	1.01	5.86			4.23	6.28		2.44
Black Eelpout	3.75	3.61	0.14		0.71	1.67	1.38	1.00
Other Eelpouts						0.00	0.00	0.00
Sablefish	93.64	123.20	66.19	10.46	12.12	277.52	56.78	16.72
Searcher								
Blacktail Snailfish						3.34	0.28	
Other Snailfishes	1.57	1.72	20.40	5.28	3.84	0.12	1.04	
Poachers	0.10	0.07	0.52	0.08	0.13	0.94	0.26	0.07
Mesopelagic Fishes	0.56	0.73			1.76	0.28	4.52	0.36
Other Fishes	2.64	6.92	2.68	0.37	0.71	5.87		
Shortspine Thornyhead	51.66	41.17	0.47		87.32	49.64	13.00	50.95
Rougheye Rockfish		1.97		3.31	1.11			
Pacific Ocean Perch	6.00	13.30	54.22	9.84	16.14			1.15
Shortraker Rockfish								
Northern Rockfish					0.61			
Grooved Tanner Crab						11.75	42.90	
Tanner Crab			0.04					
Triangle Tanner Crab	33.91	2.85			4.87	1.22	15.94	0.53
Scarlet King Crab								
Golden King Crab		0.76						
Hermit Crabs	2.17	1.30	0.13	0.01	2.09	0.11	0.02	0.85
Snails	27.07	21.56	1.29	3.22	23.81	6.85	1.49	5.54
Clams								
Octopus	1.83	2.31	4.75	0.46	0.90	1.84	2.65	1.20
Squid	15.18	10.86		2.26	9.26	3.10		3.39
Sea Anemones, Corals	37.86	35.66	5.20	4.36	9.74	0.43		0.13
Jellyfish	0.14			0.28	0.11	0.32	1.42	0.07
Shrimps	1.12	0.03	0.30	4.76	0.07	0.45	0.89	1.09
Seastars	14.48	20.19	1.50	6.87	25.70	6.32	2.03	24.20
Other Invertebrates	0.19	0.82	0.60	7.95	2.45	9.98	0.83	78.16
Haul Total Weight (kg)	**606.83**	**1063.56**	**771.00**	**771.59**	**749.42**	**1201.11**	**509.86**	**427.67**

Table A3. Continued.

Haul	16	17	18	19	20	21	22	23
Haul Date	11-Jun-2004	11-Jun-2004	11-Jun-2004	11-Jun-2004	12-Jun-2004	12-Jun-2004	12-Jun-2004	12-Jun-2004
Tow Start Latitude	54.31127	54.27051	54.2632	54.35431	54.79754	54.81015	54.73371	54.72525
Tow Start Longitude	-166.7155	-166.6349	-166.7001	-167.0947	-166.44279	-166.66879	-166.84039	-166.98981
Tow End Latitude	54.3062	54.26254	54.26121	54.36001	54.80106	54.81691	54.7176	54.74073
Tow End Longitude	-166.67529	-166.6685	-166.66389	-167.1436	-166.4836	-166.7103	-166.8062	-167.01421
Station ID	126	141	142	107	46	13	47	37
Bottom Depth (m)	808	1091	1113	676	205	236	328	369
Stratum Designation	14	15	15	13	11	21	11	11
Tow Duration (% of Hour)	0.53	0.47	0.48	0.62	0.51	0.55	0.53	0.47
Distance of Tow (nmi)	2.685	2.362	2.370	3.247	2.667	2.781	2.838	2.332
Average Net Width (m)	16.19	16.18	16.77	17.43	16.03	16.28	16.40	17.10
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	6.2	6.7	6.1	6.2	6.5	6.9	6.7	6.8
Bottom Temperature (°C)	3	2.6	2.5	3.4	4	3.9	4	4
Pacific Sleeper Shark					40.50			
Bering Skate	1.06			0.56	11.59	1.51	8.37	2.15
Mud Skate								
Roughtail Skate	28.19	13.77	4.84					
Alaska Skate								
Aleutian Skate	0.59	0.86		1.36		11.56	11.06	61.62
Commander Skate								
Whiteblotched Skate								44.07
Whitebrow Skate	0.22							
Other Skates	0.03	1.23		0.09	0.06	0.01		
Arrowtooth Flounder			8.43	1.17	257.22	221.77	455.48	74.04
Kamchatka Flounder	9.62	4.28	8.88		1.53	2.12	27.36	94.78
Greenland Turbot	52.31	64.56	67.02	13.74			6.86	36.35
Pacific Halibut						32.10	52.87	69.87
Flathead Sole					88.60	113.33	33.02	79.23
Rex Sole					9.13	12.32	24.14	31.26
Other Flatfish				1.37		0.76	1.42	2.78
Pacific Grenadier		2.37	0.04					
Giant Grenadier	198.84	334.27	383.82	168.86				
Popeye Grenadier	48.91	215.94	345.38	4.62				
Pacific Cod					4.16	2.67	13.54	
Walleye Pollock	1.52				2.05	5.52	72.88	31.94
Blob Sculpin			1.93					
Bigmouth Sculpin								
Other Sculpins				0.01	6.85	2.91	3.67	4.58
Twoline Eelpout	54.61	0.94	2.65	55.92				
Ebony Eelpout								
Black Eelpout	1.64	0.22		0.78				0.24
Other Eelpouts		0.18	0.02					
Sablefish	45.62	6.88		42.62			12.92	6.04
Searcher								
Blacktail Snailfish				0.81				
Other Snailfishes	1.01	0.86	1.39	0.08	0.76	0.66	1.65	
Poachers	0.15	0.01		0.31	0.13		0.30	0.10
Mesopelagic Fishes	1.96	4.63	3.24	0.35			1.19	0.46
Other Fishes	1.59	0.35	0.11		0.43		1.11	
Shortspine Thornyhead	5.86	1.89		25.96			73.58	128.16
Rougheye Rockfish					0.72	4.57	3.26	4.28
Pacific Ocean Perch					0.58	60.04	21.68	20.82
Shortraker Rockfish								
Northern Rockfish								
Grooved Tanner Crab	3.00	0.95		17.98				
Tanner Crab					15.35	0.87	0.06	
Triangle Tanner Crab	43.39	68.37	77.93	0.50				
Scarlet King Crab								
Golden King Crab				1.07				1.38
Hermit Crabs	0.26	0.89	0.14	0.05		0.02	2.11	1.15
Snails	3.15	3.03	4.64	4.91	4.65	2.91	4.42	3.88
Clams								
Octopus	3.36	0.09	0.79	0.82		0.33	0.94	0.06
Squid	1.11	0.82	0.44	2.51			2.41	1.50
Sea Anemones, Corals				0.01	67.21	10.14	4.93	4.71
Jellyfish	0.06	0.64	0.74		3.48	1.81	0.13	1.23
Shrimps	0.67	0.45	0.95	0.10	2.87	2.82	1.30	0.01
Seastars	0.76	0.43	14.69	18.39	0.62	0.80	14.82	48.58
Other Invertebrates	0.18	0.01	0.00	105.23	0.07	0.43	3.28	0.48
Haul Total Weight (kg)	**509.66**	**728.92**	**928.08**	**470.19**	**518.56**	**491.99**	**860.75**	**755.75**

Table A3. Continued.

Haul	24	25	26	27	28	29	30	31
Haul Date	12-Jun-2004	13-Jun-2004	13-Jun-2004	13-Jun-2004	13-Jun-2004	14-Jun-2004	14-Jun-2004	14-Jun-2004
Tow Start Latitude	54.51398	54.20912	54.38169	54.53013	54.20847	54.6483	54.57887	54.64179
Tow Start Longitude	-167.2133	-167.45979	-167.6165	-167.3105	-167.4686	-167.70239	-167.5683	-167.4718
Tow End Latitude	54.49774	54.20831	54.39647	54.54922	54.20385	54.62974	54.55776	54.66588
Tow End Longitude	-167.1906	-167.51151	-167.6385	-167.3358	-167.4984	-167.7206	-167.55299	-167.4735
Station ID	53	1100	128	86	1100	131	122	111
Bottom Depth (m)	513		798	568		812	692	609
Stratum Designation	12		13	12		14	13	13
Tow Duration (% of Hour)	0.44	0.73	0.43	0.52		0.46	0.49	0.52
Distance of Tow (nmi)	2.335	3.378	2.179	2.683	7.200	2.374	2.538	2.679
Average Net Width (m)	15.87		16.21	16.71		16.94	16.31	16.39
Performance Code	0	-6.21	0	0	-6.21	0	0	0
Surface Temperature (°C)	7.1		6.6	6.7		6.9	6.8	7.6
Bottom Temperature (°C)	3.5	1	3	3.5		3.2	3.3	3.4
Pacific Sleeper Shark								
Bering Skate								0.09
Mud Skate								
Roughtail Skate			0.24			20.53	4.72	
Alaska Skate								
Aleutian Skate				5.72			12.17	2.16
Commander Skate								
Whiteblotched Skate								
Whitebrow Skate				5.87		4.50		
Other Skates				0.09		0.10	0.01	
Arrowtooth Flounder								
Kamchatka Flounder			9.68	12.04		4.82	5.51	35.24
Greenland Turbot	22.84		23.09	71.69		20.13	63.45	17.15
Pacific Halibut	18.18							12.68
Flathead Sole								
Rex Sole	3.82						0.14	
Other Flatfish						1.68		4.80
Pacific Grenadier						1.68		
Giant Grenadier	601.13		1053.97	372.34		389.10	260.13	368.85
Popeye Grenadier			170.87	0.58		87.72	57.00	2.02
Pacific Cod								
Walleye Pollock								
Blob Sculpin			0.08					
Bigmouth Sculpin								
Other Sculpins	0.65			1.15				0.99
Twoline Eelpout	63.78		0.96	100.56		2.01	8.83	32.04
Ebony Eelpout	2.44			6.74				0.67
Black Eelpout	0.15		0.31	0.05		0.18	0.47	0.10
Other Eelpouts	0.00							0.00
Sablefish	20.24			25.92		25.46	69.34	11.29
Searcher								
Blacktail Snailfish			0.14			3.10	11.56	
Other Snailfishes	0.34		1.98	0.13		1.31	0.29	0.17
Poachers	0.19		0.02	0.02		0.07	0.27	0.11
Mesopelagic Fishes	1.64		1.74	0.29		3.22	1.90	0.65
Other Fishes				5.03				
Shortspine Thornyhead	20.36		4.72	24.83		4.97	26.68	25.94
Rougheye Rockfish								
Pacific Ocean Perch	0.56							
Shortraker Rockfish								
Northern Rockfish								
Grooved Tanner Crab	0.83			2.41			6.75	
Tanner Crab								
Triangle Tanner Crab			29.09	0.21		40.51	1.08	
Scarlet King Crab								
Golden King Crab								
Hermit Crabs			0.38			0.14	0.33	0.31
Snails	12.04		3.68	4.30		2.88	3.08	21.51
Clams								
Octopus	0.68		0.33	0.23		0.35	1.02	1.14
Squid	2.53		0.97	2.40		0.77	3.88	1.15
Sea Anemones, Corals	0.07							
Jellyfish	0.55		0.54			0.13	0.61	
Shrimps	0.21		0.43	0.19		0.39	0.03	
Seastars	48.33		2.28	216.23		1.61	3.33	104.01
Other Invertebrates	42.07	0.00	0.06	7.45	0.00	0.02	0.41	17.77
Haul Total Weight (kg)	**863.63**	**0.00**	**1305.57**	**866.46**	**0.00**	**617.36**	**543.02**	**660.85**

Table A3. Continued.

Haul	32	33	34	35	36	37	38	39
Haul Date	14-Jun-2004	14-Jun-2004	15-Jun-2004	15-Jun-2004	15-Jun-2004	15-Jun-2004	16-Jun-2004	16-Jun-2004
Tow Start Latitude	54.70105	54.81168	54.88024	54.86419	54.73684	54.94371	55.06783	55.08297
Tow Start Longitude	-167.4218	-167.67751	-167.51961	-167.60181	-167.6006	-167.149	-167.84579	-167.89751
Tow End Latitude	54.72446	54.7915	54.85994	54.84244	54.76139	54.95669	55.04639	55.10462
Tow End Longitude	-167.4314	-167.6545	-167.4902	-167.5927	-167.5938	-167.181	-167.828	-167.91499
Station ID	99	148	92	113	132	43	75	114
Bottom Depth (m)	552	1064	505	627	940	221	540	603
Stratum Designation	12	15	12	13	14	11	12	13
Tow Duration (% of Hour)	0.52	0.52	0.57	0.48	0.54	0.49	0.51	0.52
Distance of Tow (nmi)	2.673	2.687	2.941	2.486	2.762	2.513	2.640	2.651
Average Net Width (m)	16.66	16.00	15.72	15.94	16.95	16.19	15.86	16.56
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	7.6	7.9	7.5	7.4	7.6	7	7.3	6.9
Bottom Temperature (°C)	3.5	2.7	3.6	3.6	2.8	4.1	3.5	3.5
Pacific Sleeper Shark		19.14						21.93
Bering Skate	6.54		4.02			11.59		
Mud Skate								
Roughtail Skate		4.68			7.59			
Alaska Skate						18.30		
Aleutian Skate	5.05	0.12				80.52		2.54
Commander Skate	2.49		4.98					
Whiteblotched Skate								
Whitebrow Skate	1.16	1.23	0.05		0.02		1.36	
Other Skates		0.04	0.21	0.04		0.04		0.05
Arrowtooth Flounder	3.65					140.07	3.71	
Kamchatka Flounder	11.22	6.33	28.52	34.88	12.02	6.36	36.10	22.16
Greenland Turbot	51.77	14.16	36.50	41.42	15.76		74.00	51.92
Pacific Halibut	12.74							
Flathead Sole						130.88		
Rex Sole						24.19		
Other Flatfish				3.51		1.37	2.82	
Pacific Grenadier		1.64			1.25			
Giant Grenadier	361.29	258.21	683.66	736.67	398.71		353.96	133.16
Popeye Grenadier	0.55	229.93		68.84	197.88		30.18	51.48
Pacific Cod						148.76		
Walleye Pollock						9.27		
Blob Sculpin		14.14			0.03			
Bigmouth Sculpin						1.42		
Other Sculpins	0.75		0.01	0.07	0.00	2.44		0.96
Twoline Eelpout	52.52	2.69	13.64	273.12	0.03		309.03	309.12
Ebony Eelpout	1.36			0.91				1.83
Black Eelpout				0.05	0.11	0.04		
Other Eelpouts		0.01	0.01					
Sablefish	28.20	3.07	19.43				9.17	13.83
Searcher						0.15		
Blacktail Snailfish								
Other Snailfishes	0.58	2.67		1.21	1.79	0.12	0.10	0.12
Poachers	0.07		0.15	0.03	0.04	0.02	0.01	0.03
Mesopelagic Fishes	0.65	1.53	0.12	0.36	2.96		0.13	0.25
Other Fishes		2.82		0.28	0.28	3.36	12.05	0.07
Shortspine Thornyhead	36.06		80.08	37.44	1.46		226.16	24.70
Rougheye Rockfish						4.31		
Pacific Ocean Perch			0.81			1374.80		
Shortraker Rockfish			1.61	1.84				
Northern Rockfish						1.45		
Grooved Tanner Crab		0.05		6.64			0.48	6.26
Tanner Crab						0.15		
Triangle Tanner Crab		3.30			46.38			0.72
Scarlet King Crab								
Golden King Crab			0.15	0.60			0.13	
Hermit Crabs			0.14		0.02	0.05	0.18	
Snails	7.53	1.24	3.16	3.53	1.30	2.79	5.92	4.68
Clams								
Octopus	2.46	2.03	0.33	0.09	0.20	2.53	0.14	0.18
Squid	5.93	0.69	5.61	5.09	0.49		1.90	1.37
Sea Anemones, Corals	0.52	0.33				5.66		0.03
Jellyfish	0.24	0.69	1.60	1.63	0.06		0.26	0.03
Shrimps		0.45	0.02	0.02	0.42	1.47		
Seastars	183.53	1.82	198.29	54.29		0.41	163.38	129.36
Other Invertebrates	7.18	0.42	2.70	4.48	0.00	1.29	1.60	2.95
Haul Total Weight (kg)	**784.05**	**573.45**	**1085.79**	**1277.03**	**688.79**	**1973.81**	**1232.76**	**779.71**

Table A3. Continued.

Haul	40	41	42	43	44	45	46	47
Haul Date	16-Jun-2004	16-Jun-2004	16-Jun-2004	17-Jun-2004	17-Jun-2004	17-Jun-2004	17-Jun-2004	17-Jun-2004
Tow Start Latitude	55.04671	54.99484	55.0349	55.17145	55.40062	55.36475	55.54169	55.42962
Tow Start Longitude	-167.7159	-167.6179	-167.34509	-167.7912	-168.0256	-168.1516	-168.5022	-168.4422
Tow End Latitude	55.02767	54.97694	55.05096	55.19078	55.41005	55.37551	55.54492	55.43701
Tow End Longitude	-167.6855	-167.59241	-167.3779	-167.81689	-168.0493	-168.1891	-168.5081	-168.4807
Station ID	95	67	21	41	18	72	91	152
Bottom Depth (m)	424	421	203	348	233	513	534	1077
Stratum Designation	12	12	11	11	11	12	12	15
Tow Duration (% of Hour)	0.55	0.49	0.52	0.52	0.35	0.51	0.1	0.5
Distance of Tow (nmi)	2.875	2.575	2.754	2.705	1.833	2.663		2.575
Average Net Width (m)	15.52	15.71	15.99	16.16	16.57	17.13	16.29	16.44
Performance Code	0	0	0	0	0	0	-5.1	0
Surface Temperature (°C)	6.8	7.3	7.1	7.5	7.6	7	7.9	7.4
Bottom Temperature (°C)	3.6	3.7	4.1	3.8	3.9	3.6	3.6	2.7
Pacific Sleeper Shark								
Bering Skate			11.73	16.28	0.41			
Mud Skate								
Roughtail Skate								18.03
Alaska Skate								
Aleutian Skate		8.16	8.59	6.70	55.66	10.11	8.76	0.30
Commander Skate							12.90	
Whiteblotched Skate					18.25		23.01	
Whitebrow Skate							2.61	
Other Skates	0.19	0.05	0.16	0.01	0.15			
Arrowtooth Flounder	27.06	167.30	124.55	357.23	58.30	1.12	10.61	
Kamchatka Flounder	130.81	149.58	14.47	66.90	3.91	38.37	46.22	2.42
Greenland Turbot	89.71	39.70		26.94		34.18	67.78	40.26
Pacific Halibut			26.91			67.04	37.45	
Flathead Sole			136.05	1.21	38.45			
Rex Sole	4.42	10.98	59.76	62.62	54.10	7.18	1.20	
Other Flatfish			0.48	0.63		1.47		
Pacific Grenadier								0.10
Giant Grenadier	41.31	15.06				9.70	120.22	682.82
Popeye Grenadier							35.19	127.79
Pacific Cod			66.16		9.19			
Walleye Pollock	2.80	6.92	2.88	77.46	291.39			
Blob Sculpin								
Bigmouth Sculpin		0.58			3.33	3.32	4.59	
Other Sculpins	0.09	0.09	2.50	1.52	2.99	0.14	0.87	0.01
Twoline Eelpout	1.72					1.16	17.06	0.22
Ebony Eelpout						4.62	24.68	
Black Eelpout	0.55	0.53		1.06		0.64	0.62	0.20
Other Eelpouts								
Sablefish	19.50	6.26		3.92		58.18	25.48	17.46
Searcher			0.70					
Blacktail Snailfish						0.45		0.53
Other Snailfishes				12.86	0.30	0.94	0.48	0.59
Poachers	0.03		0.05		0.66	0.09	0.03	0.03
Mesopelagic Fishes	1.26	8.20	0.06			0.10	0.36	0.88
Other Fishes		0.31		0.23	5.39		0.29	0.37
Shortspine Thornyhead	71.93	63.02		58.34		134.22	218.13	
Rougheye Rockfish			3.84	6.86	1.63			
Pacific Ocean Perch	1.45		0.30	6.30	9.43			
Shortraker Rockfish				6.58				
Northern Rockfish								
Grooved Tanner Crab		1.42				42.96	1.60	
Tanner Crab			1.65		0.07			
Triangle Tanner Crab							40.66	33.69
Scarlet King Crab								
Golden King Crab	1.06					1.38	0.93	
Hermit Crabs	0.17	0.50	0.25	0.77	0.09	0.84	0.44	0.18
Snails	0.87	1.23	5.70	2.17	2.18	3.27	0.74	1.20
Clams								
Octopus	3.09	0.36	0.40	0.91	1.55	0.58	0.90	2.74
Squid	29.72	25.25	0.07	9.69	0.34	1.66		0.12
Sea Anemones, Corals	10.34	11.96	16.97	6.71	6.44	1.64	2.26	
Jellyfish		0.82	0.42	0.21				0.94
Shrimps	0.01	0.01	0.96	0.34	1.44	0.06		0.57
Seastars	6.55	10.80	2.47	14.78	2.08	14.63	6.43	0.88
Other Invertebrates	0.55	1.01	0.57	1.77	2.30	0.62	0.26	0.74
Haul Total Weight (kg)	**445.20**	**530.09**	**488.65**	**751.00**	**570.05**	**440.67**	**712.75**	**933.05**

Table A3. Continued.

Haul	48	49	50	51	52	53	54	55
Haul Date	18-Jun-2004	18-Jun-2004	18-Jun-2004	18-Jun-2004	19-Jun-2004	19-Jun-2004	19-Jun-2004	19-Jun-2004
Tow Start Latitude	55.80007	55.96017	55.93306	56.12667	56.05305	56.09847	56.12757	56.07185
Tow Start Longitude	-168.86301	-168.9409	-168.8197	-169.11749	-168.3726	-168.6389	-168.79021	-168.7858
Tow End Latitude	55.81746	55.96304	55.92489	56.11967	56.03945	56.08823	56.12936	56.07705
Tow End Longitude	-168.8902	-168.9908	-168.8571	-169.08	-168.3819	-168.59869	-168.8186	-168.74429
Station ID	168	185	154	193	156	169	169	178
Bottom Depth (m)	555	811	307	1161	222	555	557	743
Stratum Designation	22	14	21	25	21	22	22	23
Tow Duration (% of Hour)	0.51	0.61	0.49	0.52	0.32	0.52	0.38	0.56
Distance of Tow (nmi)	2.578	3.146	2.508	2.459	1.620	2.747	1.783	2.655
Average Net Width (m)	16.55	15.92	15.73	14.90	14.96	15.56	16.33	15.95
Performance Code	0	0	0	0	5	-2.4	4.1	4.1
Surface Temperature (°C)	7.7	7.1	7.6	7.4	7.8	7.7	7.8	7.7
Bottom Temperature (°C)	3.4	3	4	2.8	3.8	3.4	3.3	3.3
Pacific Sleeper Shark			32.04					18.93
Bering Skate			2.68					
Mud Skate		2.76	24.30		4.99		0.96	1.29
Roughtail Skate								
Alaska Skate								
Aleutian Skate	28.62	59.46	2.53	10.14	15.49	3.03	8.03	21.18
Commander Skate	3.56	29.51		0.02		4.33	10.93	65.34
Whiteblotched Skate	36.60	15.85			24.00	71.22	4.24	2.15
Whitebrow Skate	8.00	2.04	5.34	0.68	2.53			0.93
Other Skates		0.23	0.06	0.01	0.88	0.12		
Arrowtooth Flounder	9.49		181.76		66.74	0.61		
Kamchatka Flounder	52.94	41.86	21.76		6.43	29.18	33.54	3.80
Greenland Turbot	123.88	2.80				38.62	39.72	
Pacific Halibut	86.71					18.40		
Flathead Sole			57.32		53.32			
Rex Sole	4.83		18.34		2.23			
Other Flatfish		9.52	0.42		0.62			
Pacific Grenadier				66.70				
Giant Grenadier	2.29	1828.95		184.32		22.24	3.52	297.73
Popeye Grenadier	12.07	313.07		176.01				9.90
Pacific Cod			57.00		24.01			
Walleye Pollock			201.92		3.95			
Blob Sculpin				6.79				
Bigmouth Sculpin	0.75						0.84	
Other Sculpins	0.50	1.67	15.36		2.90	2.61	2.33	0.67
Twoline Eelpout	71.40	4.41		11.09		0.34		4.63
Ebony Eelpout	62.12	0.99		11.20		1.71	3.62	1.03
Black Eelpout	1.21	0.15	0.47			0.36	0.25	0.09
Other Eelpouts		0.01		0.02				
Sablefish	126.79	24.40		3.42			4.51	58.35
Searcher					0.19			
Blacktail Snailfish		0.05					1.16	
Other Snailfishes	0.49	2.10	17.76	0.06	0.60	0.09	0.08	0.08
Poachers	0.03		0.23			0.02	0.13	
Mesopelagic Fishes	0.33	0.04		0.58		0.21	0.15	
Other Fishes								
Shortspine Thornyhead	63.66	3.02				28.74	118.04	32.75
Rougheye Rockfish								
Pacific Ocean Perch			21.46		135.75			
Shortraker Rockfish						3.28	7.07	
Northern Rockfish								
Grooved Tanner Crab	10.79	8.04		4.14				
Tanner Crab			0.02					
Triangle Tanner Crab		0.49		5.51				0.45
Scarlet King Crab		5.10		0.40		0.44		3.20
Golden King Crab	1.01	0.38				22.52	9.55	0.66
Hermit Crabs	0.26	0.08		0.00	0.04		0.01	0.07
Snails	0.53	0.09	0.28	0.15	0.23			0.04
Clams								
Octopus	0.23	0.07	25.76	0.53	2.80		0.24	0.03
Squid	0.60		0.09		4.48	1.58	0.82	0.45
Sea Anemones, Corals	2.79		5.98				0.26	0.26
Jellyfish				0.38			0.02	
Shrimps	0.02	0.20	3.72		0.64	0.03	0.04	
Seastars	5.96	3.93	3.88	0.19	6.65	0.17	1.80	0.13
Other Invertebrates	1.04	6.24	5.23	30.38	2.32	6.00	55.52	4.07
Haul Total Weight (kg)	**719.52**	**2367.50**	**705.73**	**512.74**	**361.80**	**255.83**	**307.41**	**528.21**

Table A3. Continued.

Haul	56	57	58	59	60	61	62	63
Haul Date	20-Jun-2004	20-Jun-2004	20-Jun-2004	21-Jun-2004	21-Jun-2004	21-Jun-2004	22-Jun-2004	22-Jun-2004
Tow Start Latitude	56.05818	56.14296	56.01655	56.20036	55.98394	55.93835	56.24277	56.23694
Tow Start Longitude	-169.5016	-169.4567	-168.88029	-169.7565	-169.74969	-170.3331	-171.01981	-171.38831
Tow End Latitude	56.04173	56.15157	56.01495	56.18596	55.98332	55.95378	56.23676	56.24192
Tow End Longitude	-169.5325	-169.4789	-168.8483	-169.7484	-169.79201	-170.3102	-170.9955	-171.4259
Station ID	162	181	191	161	173	189	196	219
Bottom Depth (m)	250	633	1177	207	524	854	266	652
Stratum Designation	21	23	25	21	22	24	31	23
Tow Duration (% of Hour)	0.58	0.36	0.44	0.39	0.58	0.49	0.35	0.52
Distance of Tow (nmi)	2.662	1.679	2.015	1.677	2.646	2.233	1.651	2.397
Average Net Width (m)	15.16	14.53	15.48	14.86	15.91	16.89	14.80	15.86
Performance Code	0	5.3	0	4.1	0	5	5	0
Surface Temperature (°C)	7.3	7.4	7.2	7.1	7.6	7.4	7.2	7.1
Bottom Temperature (°C)	4	3.1	2.3	4	3.6	3.1	3.9	3.4
Pacific Sleeper Shark								15.07
Bering Skate	2.70							
Mud Skate	6.02	0.61		2.02				
Roughtail Skate								
Alaska Skate				7.69			8.19	
Aleutian Skate	15.98		3.08	8.93	11.70	20.86	39.08	32.52
Commander Skate		4.73						10.86
Whiteblotched Skate		5.54	0.06	31.70				
Whitebrow Skate	2.88		0.27			3.30		
Other Skates	0.02					0.02		
Arrowtooth Flounder	58.02	2.28		178.02	22.18		77.36	
Kamchatka Flounder	10.10	1.19	2.96	1.32	49.24	39.84	20.83	9.16
Greenland Turbot			24.87		16.16			16.28
Pacific Halibut	13.03			6.00	16.45		4.97	
Flathead Sole	5.82				4.83			
Rex Sole	154.60				41.54		6.88	
Other Flatfish						4.45		
Pacific Grenadier			201.26					
Giant Grenadier		71.12	305.47		353.09	1089.17		986.82
Popeye Grenadier			415.00			98.22		47.64
Pacific Cod	27.28			56.59			88.00	
Walleye Pollock	10.78				0.81		48.79	
Blob Sculpin			5.89			4.92		
Bigmouth Sculpin	3.11			14.09	2.49		5.32	
Other Sculpins	3.76	4.67	0.03	32.82	0.31	0.08	43.67	0.34
Twoline Eelpout		19.69	5.24		3.01			7.50
Ebony Eelpout		0.17	4.94					
Black Eelpout	0.12				0.66			0.09
Other Eelpouts			0.45					
Sablefish		3.94	10.38		25.34	4.48		27.54
Searcher	0.83			4.34				
Blacktail Snailfish					1.12	0.10		6.36
Other Snailfishes	0.14	0.71	0.04			0.01		
Poachers	0.96			0.06	0.02	0.04	1.77	0.15
Mesopelagic Fishes		0.13	0.56		0.47	0.47		0.19
Other Fishes	8.40		2.98	63.76		0.04	15.77	0.01
Shortspine Thornyhead			2.28		189.68	18.08	190.40	67.76
Rougheye Rockfish	0.92			4.38			3.91	
Pacific Ocean Perch	1227.56			301.94			1185.61	
Shortraker Rockfish					1.91		50.64	
Northern Rockfish								
Grooved Tanner Crab					15.85	9.40		16.92
Tanner Crab	1.55			0.26				
Triangle Tanner Crab			6.02			0.37		
Scarlet King Crab			1.42			1.44		1.22
Golden King Crab		6.64						
Hermit Crabs	0.02			0.31		0.08	0.01	0.12
Snails	2.21		0.18	1.28	0.16	0.18	3.79	0.19
Clams								
Octopus			0.29			0.07	19.72	
Squid	0.56	2.10	0.16	0.37	7.44		0.87	
Sea Anemones, Corals	0.12	0.03		0.60	3.71	5.60	0.42	0.15
Jellyfish		0.01	1.53		0.65	0.02	0.33	
Shrimps	0.64	1.06	0.10	0.52			1.70	
Seastars	8.65	0.36	0.08	2.24	8.10	2.06	3.43	5.58
Other Invertebrates	5.88	0.00	1.68	69.08	0.93	3.55	33.33	223.43
Haul Total Weight (kg)	**1572.67**	**124.99**	**997.22**	**788.33**	**777.85**	**1306.85**	**1854.80**	**1475.90**

Table A3. Continued.

Haul	64	65	66	67	68	69	70	71
Haul Date	24-Jun-2004	24-Jun-2004	24-Jun-2004	24-Jun-2004	25-Jun-2004	25-Jun-2004	25-Jun-2004	26-Jun-2004
Tow Start Latitude	56.51509	56.49411	56.52844	56.45756	56.55008	56.76327	56.84528	57.15737
Tow Start Longitude	-172.2585	-172.3143	-172.5144	-172.7225	-172.7775	-173.4093	-173.4059	-173.87511
Tow End Latitude	56.51365	56.50056	56.53814	56.46434	56.56052	56.78493	56.85944	57.13866
Tow End Longitude	-172.29601	-172.3522	-172.5009	-172.7618	-172.8009	-173.4115	-173.3967	-173.8587
Station ID	232	240	214	224	202	215	203	206
Bottom Depth (m)	951	1018	435	729	238	420	326	336
Stratum Designation	34	35	32	33	31	32	31	31
Tow Duration (% of Hour)	0.53	0.57	0.3	0.55	0.4	0.53	0.35	0.51
Distance of Tow (nmi)	2.319	2.441	1.362	2.542	1.851	2.411	1.670	2.306
Average Net Width (m)	16.32	16.43	16.39	15.59	14.30	14.41	13.80	14.83
Performance Code	0	0	5.1	0	0	0	0	0
Surface Temperature (°C)	7.6	7.8	7.4	7.3	7.3	7.2	7.2	7.6
Bottom Temperature (°C)	2.8	2.8	3.8	3.3	3.8	3.8	4	3.9
Pacific Sleeper Shark		18.48	11.88					
Bering Skate							9.18	0.27
Mud Skate						0.73	4.26	4.98
Roughtail Skate	0.75	4.39						
Alaska Skate								
Aleutian Skate	0.84			7.50		3.52	3.04	
Commander Skate	4.29			26.74				
Whiteblotched Skate						4.00		
Whitebrow Skate								
Other Skates	13.08		0.20	0.06	0.05		0.01	
Arrowtooth Flounder			12.90		377.46	87.25	127.70	57.32
Kamchatka Flounder		3.42	16.83	19.00	3.81	12.53		6.58
Greenland Turbot	5.93		12.52	7.12		17.40		8.03
Pacific Halibut					19.25	14.86		
Flathead Sole			4.64		67.93	120.90	44.66	82.34
Rex Sole			15.32		70.12	32.60	64.22	6.64
Other Flatfish				8.04		0.87		
Pacific Grenadier	16.94	45.69						
Giant Grenadier	1347.66	879.99	216.52	3374.73		141.90		
Popeye Grenadier	246.09	109.32		201.67				
Pacific Cod					65.66		20.19	1.56
Walleye Pollock	0.69		1.86		22.16	2.39	36.17	3.34
Blob Sculpin	26.44	15.83						
Bigmouth Sculpin						15.24		
Other Sculpins			0.18	0.01	0.69	0.16	1.83	0.10
Twoline Eelpout			3.40	4.76		2.49		
Ebony Eelpout								
Black Eelpout			0.13	0.28		0.15		0.14
Other Eelpouts	0.01							
Sablefish	5.24			26.12				
Searcher								
Blacktail Snailfish	0.35			1.45				
Other Snailfishes	0.60	0.14		0.09				0.08
Poachers			0.09	0.14	0.54	0.02	0.86	0.27
Mesopelagic Fishes	0.23	0.86	0.03	0.06		15.25		
Other Fishes	0.71	0.37	0.53		1.14			
Shortspine Thornyhead	1.67		39.31	47.30		85.68	1.61	
Rougheye Rockfish			1.44			6.48	3.39	
Pacific Ocean Perch				0.91	6614.79	8.40	602.65	20.10
Shortraker Rockfish			35.42		16.09	78.66	29.64	
Northern Rockfish								
Grooved Tanner Crab		0.62		2.05		0.38		
Tanner Crab			0.02					0.14
Triangle Tanner Crab	1.78	0.35						
Scarlet King Crab		1.10		0.99				
Golden King Crab						0.99	2.20	
Hermit Crabs	0.02			0.03				
Snails	0.42	0.15	0.32	0.11		0.15	0.28	0.36
Clams								
Octopus	0.83	0.87	2.19	0.43		0.08	0.74	4.80
Squid		0.34	1.90	0.11	0.08	0.15		0.78
Sea Anemones, Corals			1.76		0.07	8.58	1.32	6.00
Jellyfish	0.67	2.12			0.24	0.07	2.36	0.88
Shrimps	0.02	0.02	1.22			0.70	1.67	2.14
Seastars	9.15	13.23	4.78	7.59	0.91	2.24	1.30	3.16
Other Invertebrates	1.30	29.34	1.30	0.71	0.00	0.00	0.34	0.58
Haul Total Weight (kg)	**1685.70**	**1126.62**	**386.68**	**3738.00**	**7261.00**	**664.82**	**959.61**	**210.60**

Table A3. Continued.

Haul	72	73	74	75	76	77	78	79
Haul Date	26-Jun-2004	26-Jun-2004	26-Jun-2004	27-Jun-2004	27-Jun-2004	27-Jun-2004	27-Jun-2004	28-Jun-2004
Tow Start Latitude	57.14333	57.14039	57.73484	57.83687	57.84603	57.7641	58.3978	58.50877
Tow Start Longitude	-173.9063	-173.9534	-173.793	-173.8945	-173.9509	-173.9897	-174.48821	-174.84039
Tow End Latitude	57.12331	57.12199	57.74896	57.82076	57.86713	57.77346	58.38225	58.49746
Tow End Longitude	-173.8898	-173.9373	-173.8221	-173.8707	-173.9689	-174.0206	-174.4631	-174.88071
Station ID	218	228	249	264	272	279	253	289
Bottom Depth (m)	466	650	356	515	656	904	340	1024
Stratum Designation	32	33	41	42	43	44	41	45
Tow Duration (% of Hour)	0.53	0.5	0.51	0.49	0.55	0.45	0.5	0.56
Distance of Tow (nmi)	2.438	2.276	2.337	2.284	2.580	2.119	2.270	2.660
Average Net Width (m)	15.27	16.33	15.85	15.42	15.29	16.91	16.00	16.62
Performance Code	0	0	0	0	0	4.1	0	0
Surface Temperature (°C)	7.6	7.5	7.7	7.5	7.5	7.5	7.8	7.4
Bottom Temperature (°C)	3.7	3.4	3.9	3.6	3.5	3	3.9	2.8
Pacific Sleeper Shark					148.00			
Bering Skate	1.94		4.38	0.42				
Mud Skate			18.46	1.15	0.27		4.04	
Roughtail Skate		3.64				10.54		7.00
Alaska Skate								
Aleutian Skate	19.40	14.20	59.59	18.07	12.70	7.03	1.48	8.87
Commander Skate	12.22	16.56		12.87	34.46	1.23		0.03
Whiteblotched Skate			4.76				6.46	
Whitebrow Skate	2.32				0.34	1.81		
Other Skates			0.01			0.10	0.27	0.08
Arrowtooth Flounder	14.15		37.08				126.60	
Kamchatka Flounder	6.58	8.22	21.22	25.22	18.53	4.78	23.11	
Greenland Turbot	15.08	14.63	2.53	35.92	46.44	30.70	6.88	6.28
Pacific Halibut				45.79			12.18	
Flathead Sole	103.83		114.12	126.68	2.16		50.64	
Rex Sole	20.13		29.34	0.19			14.08	
Other Flatfish								
Pacific Grenadier						1.26		14.05
Giant Grenadier	1251.84	1230.06		418.14	1450.16	1783.96		1713.74
Popeye Grenadier	3.54	163.33			86.88	103.22		109.43
Pacific Cod							22.15	
Walleye Pollock			16.54	1.14	1.13		10.09	
Blob Sculpin								8.69
Bigmouth Sculpin	3.23		8.60				3.60	
Other Sculpins		0.02	0.22	0.02	0.06	0.01	28.41	0.10
Twoline Eelpout	2.46	1.72			7.92	8.76		
Ebony Eelpout	1.35	0.60		1.12	102.84	0.12		
Black Eelpout	0.51	0.53					0.07	
Other Eelpouts						0.26		0.03
Sablefish		15.47		5.88	47.58	47.10		14.24
Searcher								
Blacktail Snailfish	0.65	0.35				5.88		0.20
Other Snailfishes	0.11	0.48	0.36	2.25	0.06	1.10	0.53	0.82
Poachers	0.07	0.12			0.19	0.03	0.17	
Mesopelagic Fishes		0.12		0.15	0.10	0.33		0.39
Other Fishes		2.21		2.29	0.16	0.47	1.81	0.44
Shortspine Thornyhead	8.14	16.76		14.34	31.88	6.90	0.78	
Rougheye Rockfish	1.35		5.32					
Pacific Ocean Perch	1.30		186.58				81.84	
Shortraker Rockfish	2.78	2.70		9.55			58.55	
Northern Rockfish								
Grooved Tanner Crab	3.63	9.58		1.65	27.45	5.64		0.93
Tanner Crab			1.20				0.27	
Triangle Tanner Crab						0.35		1.09
Scarlet King Crab					1.88	5.12		
Golden King Crab			12.24				1.79	
Hermit Crabs		0.35			0.10	0.17	0.03	
Snails		0.38				0.07	0.36	2.15
Clams								
Octopus	0.02	0.04			0.13	0.88	0.42	2.52
Squid	1.37	0.47	3.92	1.09		0.39	0.26	0.39
Sea Anemones, Corals	2.65		13.72	3.32	0.34	53.43	5.93	41.83
Jellyfish				0.48	0.58	0.03	1.28	0.23
Shrimps	0.11		6.26	0.02		0.41	12.53	
Seastars	2.77	9.36	1.75	0.64	4.18	0.65	4.75	1.04
Other Invertebrates	0.09	51.73	2.84	0.03	10.58	56.10	11.21	33.42
Haul Total Weight (kg)	**1483.61**	**1563.64**	**551.03**	**728.42**	**2037.10**	**2138.83**	**492.57**	**1968.00**

Table A3. Continued.

Haul	82	83	84	85	86	87	88	89
Haul Date	28-Jun-2004	28-Jun-2004	29-Jun-2004	29-Jun-2004	29-Jun-2004	29-Jun-2004	29-Jun-2004	30-Jun-2004
Tow Start Latitude	58.55886	58.6569	58.58804	58.36127	58.2711	58.35606	58.13155	58.06443
Tow Start Longitude	-174.61189	-174.87109	-175.0881	-175.07021	-175.1006	-175.3261	-175.5517	-175.4713
Tow End Latitude	58.57977	58.65789	58.58786	58.33868	58.29244	58.35424	58.15005	58.05535
Tow End Longitude	-174.6096	-174.9126	-175.063	-175.0739	-175.0882	-175.3672	-175.57561	-175.43269
Station ID	254	256	275	268	276	259	284	287
Bottom Depth (m)	324	261	681	576	665	272	905	1045
Stratum Designation	41	41	43	42	43	41	44	45
Tow Duration (% of Hour)	0.5	0.51	0.31	0.53	0.53	0.51	0.53	0.53
Distance of Tow (nmi)	2.327	2.418	1.474	2.520	2.482	2.422	2.493	2.496
Average Net Width (m)	15.00	16.66	16.45	15.67	15.14	14.78	16.50	16.13
Performance Code	0	0	0	0	0	0	0	5
Surface Temperature (°C)	7.9	7.7	7.8	7.8	8.2	7.8	8.1	8.1
Bottom Temperature (°C)	3.9	3.7	3.3	3.6	3.3	3.7	2.9	2.7
Pacific Sleeper Shark								
Bering Skate	0.04	0.06				2.94		
Mud Skate		3.83			0.13			
Roughtail Skate					3.43		9.62	
Alaska Skate		98.70				8.35		
Aleutian Skate	3.58	35.08	13.09	19.22	19.64	326.00		
Commander Skate			19.40	30.50	11.34			
Whiteblotched Skate	10.95			5.89		36.12		
Whitebrow Skate			1.29	13.97	5.31			
Other Skates	0.01	0.20	0.15	0.04		0.09	0.01	0.16
Arrowtooth Flounder	256.34	233.66				315.68		
Kamchatka Flounder	12.30	5.35	4.76	12.64		10.65		
Greenland Turbot	8.32		27.70	24.66	9.11			
Pacific Halibut		17.22				116.42		
Flathead Sole	145.94	15.64				90.34		
Rex Sole	27.66	113.76				79.36		
Other Flatfish					8.45	3.62		
Pacific Grenadier							15.88	45.35
Giant Grenadier			2601.50	1338.98	766.39		1544.26	695.92
Popeye Grenadier			99.13	185.57	32.71		81.10	70.80
Pacific Cod	8.58	3.96				14.38		
Walleye Pollock	72.73	0.27	3.12	0.72		49.87		
Blob Sculpin							2.21	5.38
Bigmouth Sculpin								
Other Sculpins	5.28	2.38		2.14		4.04		
Twoline Eelpout			11.17	37.15	2.36		1.36	
Ebony Eelpout			2.07	11.54	3.22			
Black Eelpout				0.14	0.11			
Other Eelpouts			0.17		0.08	0.31	0.07	
Sablefish			3.20	57.32	8.78	2.03		
Searcher		1.93						
Blacktail Snailfish			5.52	2.32				
Other Snailfishes		0.04	0.14	2.40		0.61	0.84	0.75
Poachers	5.43	5.88	0.53	0.91	0.13	0.58		
Mesopelagic Fishes			0.06	0.20	0.19		0.58	0.69
Other Fishes			1.82	4.93			1.03	2.23
Shortspine Thornyhead			7.25	18.67	14.71		4.11	
Rougheye Rockfish						1.87		
Pacific Ocean Perch	53.88	3.66				1793.91		
Shortraker Rockfish				1.73				
Northern Rockfish								
Grooved Tanner Crab			1.91	20.15	3.70			0.49
Tanner Crab	1.78					0.05		
Triangle Tanner Crab			0.46		0.15		4.18	3.77
Scarlet King Crab								
Golden King Crab	3.80							
Hermit Crabs		0.18	0.48	0.03				
Snails		1.20	3.02	0.53	0.07		1.30	1.55
Clams								
Octopus	0.03	0.07	0.28	2.50	0.37		1.77	13.95
Squid	1.31	0.41	2.08	0.05		0.36		
Sea Anemones, Corals	6.57	0.60	1.34	15.00	0.03	2.68	21.75	145.20
Jellyfish	0.49	0.23		0.31	0.25		0.73	1.47
Shrimps	3.15	4.72		0.26		1.96	2.23	0.17
Seastars	0.70	11.35	3.39	50.17	6.86	81.87	0.59	76.63
Other Invertebrates	0.98	0.38	18.96	281.35	3.68	1.91	52.42	242.98
Haul Total Weight (kg)	**629.86**	**560.75**	**2834.00**	**2142.00**	**901.19**	**2946.00**	**1746.05**	**1307.48**

Table A3. Continued.

Haul	90	91	92	93	94	95	97	98
Haul Date	30-Jun-2004	30-Jun-2004	30-Jun-2004	1-Jul-2004	1-Jul-2004	1-Jul-2004	1-Jul-2004	2-Jul-2004
Tow Start Latitude	58.23714	58.5245	58.53445	58.52889	58.56834	58.60484	58.60726	58.63365
Tow Start Longitude	-175.6335	-176.1315	-176.0712	-176.84061	-176.68719	-176.815	-177.95039	-177.7496
Tow End Latitude	58.25739	58.52408	58.53179	58.52318	58.56493	58.6087	58.6058	58.63103
Tow End Longitude	-175.6503	-176.0898	-176.0298	-176.8008	-176.65559	-176.8537	-177.9066	-177.7943
Station ID	285	306	300	307	301	295	315	308
Bottom Depth (m)	858	667	479	767	474	236	916	827
Stratum Designation	44	53	52	53	52	51	54	54
Tow Duration (% of Hour)	0.53	0.5	0.52	0.5	0.4	0.49	0.53	0.57
Distance of Tow (nmi)	2.457	2.435	2.436	2.407	1.883	2.294	2.558	2.619
Average Net Width (m)	16.16	16.40	17.07	16.39	15.57	14.38	16.17	16.13
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	8.3	8.2	8.2	8.3	8	7.9	8.5	8.5
Bottom Temperature (°C)	3.1	3.4	3.8	3.2	3.8	3.6	3	3.1
Pacific Sleeper Shark								
Bering Skate			14.30			6.14		
Mud Skate						2.00		
Roughtail Skate							9.76	12.10
Alaska Skate						8.33		
Aleutian Skate		5.81	12.43		19.12	61.50		
Commander Skate		7.98	12.42	2.38	3.22			
Whiteblotched Skate			5.81			17.62		
Whitebrow Skate			16.82		8.24			
Other Skates	0.01		0.03	0.06	0.03			1.01
Arrowtooth Flounder			15.01		8.20	119.14		
Kamchatka Flounder	2.82	4.64	19.07		9.29	19.86		
Greenland Turbot	13.46		39.94	6.41	36.24			
Pacific Halibut						6.66		
Flathead Sole			5.39		40.01	43.31		
Rex Sole			0.55		2.19	42.36		
Other Flatfish				3.11			4.73	
Pacific Grenadier	1.58	0.06		9.72			12.36	22.13
Giant Grenadier	1898.24	3629.47	1329.46	4937.34	1538.38		862.57	1811.33
Popeye Grenadier	238.49	137.84		76.92			108.09	173.02
Pacific Cod						5.85		
Walleye Pollock	0.72				0.90	4434.44		
Blob Sculpin	0.50						0.07	0.01
Bigmouth Sculpin						7.88		
Other Sculpins		0.06	2.42		1.08	0.40		
Twoline Eelpout		11.50	36.32		19.02		1.15	
Ebony Eelpout					1.13			
Black Eelpout			0.03					
Other Eelpouts	0.12	0.49					0.13	0.25
Sablefish		55.28	8.14	16.95	6.14		4.13	
Searcher								
Blacktail Snailfish			1.50	0.08	1.33			0.43
Other Snailfishes	1.45	0.12	0.65	0.33	1.31	0.22	0.68	0.61
Poachers	0.00	0.21	0.29	0.02	0.00	4.10		
Mesopelagic Fishes	0.61	0.13	0.02	0.00	0.08		1.27	0.89
Other Fishes	0.18	0.50		0.09	2.95		0.62	0.15
Shortspine Thornyhead	6.64	18.56	75.41	6.97	53.62	1.13	3.67	11.18
Rougheye Rockfish								
Pacific Ocean Perch						1738.14		
Shortraker Rockfish			29.76		3.14			
Northern Rockfish								
Grooved Tanner Crab	2.38		19.70		4.86			0.39
Tanner Crab						0.34		
Triangle Tanner Crab	2.73	21.60	0.37	1.06			0.41	5.36
Scarlet King Crab								0.02
Golden King Crab			2.20					
Hermit Crabs		0.02	0.14	0.03				0.08
Snails	0.74	2.48	13.88	0.37	0.18	0.83	0.21	1.02
Clams								
Octopus	2.53	1.48	9.42	3.96	3.60		1.63	1.24
Squid	0.05	0.72	0.06	0.32		0.92		0.18
Sea Anemones, Corals	2.19	0.20	4.96		10.52	0.43	2.70	1.45
Jellyfish	0.62		1.51	0.49	0.69		0.71	1.67
Shrimps	1.23		1.01		1.86		0.69	0.09
Seastars	2.71	20.06	8.64	10.47	6.64	10.04	1.59	2.44
Other Invertebrates	0.00	0.78	0.34	2.92	0.02	0.37	0.35	0.00
Haul Total Weight (kg)	**2180.00**	**3920.00**	**1688.00**	**5080.00**	**1784.00**	**6532.00**	**1017.52**	**2047.06**

Table A3. Continued.

Haul	99	100	101	102	103	104	105	106
Haul Date	2-Jul-2004	2-Jul-2004	2-Jul-2004	3-Jul-2004	3-Jul-2004	3-Jul-2004	3-Jul-2004	3-Jul-2004
Tow Start Latitude	58.58624	58.50699	58.6529	58.66553	58.78891	58.77062	58.94019	58.98917
Tow Start Longitude	-177.6848	-177.8707	-177.7755	-177.9677	-177.94749	-178.0799	-178.0312	-178.2424
Tow End Latitude	58.60535	58.51966	58.65353	58.65464	58.77917	58.75292	58.94538	58.97282
Tow End Longitude	-177.701	-177.8322	-177.8166	-177.9328	-177.91341	-178.05701	-178.0733	-178.2164
Station ID	319	322	309	314	303	310	297	299
Bottom Depth (m)	1011	1145	711	802	503	640	224	284
Stratum Designation	55	55	53	54	52	53	51	51
Tow Duration (% of Hour)	0.5	0.56	0.51	0.5	0.48	0.51	0.52	0.52
Distance of Tow (nmi)	2.332	2.653	2.394	2.361	2.255	2.375	2.501	2.357
Average Net Width (m)	16.33	14.92	15.82	15.55	15.96	16.65	12.68	15.08
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	8.2	8.4	8.4	8.5	8.3	8.5	7.8	7.8
Bottom Temperature (°C)	2.9	2.7	3.3	3.1	3.6	3.4	3.7	3.9
Pacific Sleeper Shark								
Bering Skate								7.20
Mud Skate								
Roughtail Skate	6.83	0.09	14.12	10.35		2.90		
Alaska Skate							36.00	0.33
Aleutian Skate				0.53	18.38			
Commander Skate				0.08				
Whiteblotched Skate							5.58	14.22
Whitebrow Skate			0.83	0.66	2.85			
Other Skates	0.07	0.00	0.08	0.05		0.07	0.21	0.13
Arrowtooth Flounder					1.01		6.04	69.14
Kamchatka Flounder						5.24	1.91	8.00
Greenland Turbot		7.41			36.82	7.26		
Pacific Halibut							5.28	2.17
Flathead Sole					27.60		13.98	199.72
Rex Sole					5.04		12.12	49.36
Other Flatfish			2.53				0.48	
Pacific Grenadier	45.90	31.59	5.91	3.21		0.34		
Giant Grenadier	1017.90	1030.90	5097.02	820.74	3953.88	649.79		
Popeye Grenadier	60.53	53.07	54.97	69.36	17.83	114.67		
Pacific Cod							4.63	5.90
Walleye Pollock				1.74			1.77	251.24
Blob Sculpin	3.76	4.53		0.01		0.05		
Bigmouth Sculpin								2.86
Other Sculpins					0.02		8.60	0.78
Twoline Eelpout					4.29	0.02		
Ebony Eelpout					5.08			
Black Eelpout				0.06	0.23			
Other Eelpouts	0.01					0.37	0.16	
Sablefish			9.03		6.80			
Searcher							2.32	
Blacktail Snailfish			0.54	0.02				
Other Snailfishes	5.57	1.61	0.05	0.21	0.23	0.02		0.11
Poachers			0.02	0.02	0.02	0.16	0.39	0.30
Mesopelagic Fishes	1.84	1.81	0.10	0.33		0.23		
Other Fishes	2.77	3.05		1.41	0.22	0.97		
Shortspine Thornyhead	1.45		14.36	14.52	18.93	12.10	1.24	
Rougheye Rockfish								
Pacific Ocean Perch							0.18	
Shortraker Rockfish								
Northern Rockfish								
Grooved Tanner Crab			1.66	0.51	0.19			
Tanner Crab							0.80	0.10
Triangle Tanner Crab	2.01	2.31		4.06		0.59		
Scarlet King Crab	0.02		2.06	0.81				
Golden King Crab							2.80	
Hermit Crabs			0.15			0.07	0.05	
Snails	0.42		0.51	0.21		1.28	0.30	2.22
Clams								
Octopus	3.18	6.72	0.04	1.39	1.09	0.18	0.35	
Squid		0.46			22.54	0.30	0.09	0.28
Sea Anemones, Corals	7.12	17.92	0.08		0.52		8.80	2.18
Jellyfish	3.97	1.83		1.37		0.19	0.78	0.99
Shrimps	0.05	0.01			0.02	0.03	0.18	0.55
Seastars	48.41	17.02	19.38	2.19	10.40	11.89	8.94	10.51
Other Invertebrates	259.70	3.50	0.11	0.00	0.00	5.30	1.85	0.34
Haul Total Weight (kg)	**1471.51**	**1183.83**	**5223.54**	**933.83**	**4134.00**	**814.03**	**125.82**	**628.64**

Table A3. Continued.

Haul	107	108	109	110	111	112	113	114
Haul Date	7-Jul-2004	7-Jul-2004	7-Jul-2004	7-Jul-2004	8-Jul-2004	8-Jul-2004	8-Jul-2004	8-Jul-2004
Tow Start Latitude	59.18926	59.2582	59.33407	59.41678	59.63767	59.70443	59.71823	59.79277
Tow Start Longitude	-177.9424	-177.8831	-178.134	-178.11011	-178.4613	-178.5473	-178.636	-178.6739
Tow End Latitude	59.18312	59.24918	59.33344	59.41763	59.65533	59.69521	59.7018	59.77554
Tow End Longitude	-177.90311	-177.843	-178.11031	-178.1539	-178.48511	-178.5323	-178.6084	-178.64819
Station ID	326	357	376	362	342	365	380	343
Bottom Depth (m)	210	420	623	536	328	483	638	215
Stratum Designation	61	62	63	62	61	62	63	61
Tow Duration (% of Hour)	0.51	0.54	0.29	0.54	0.51	0.29	0.52	0.51
Distance of Tow (nmi)	2.353	2.504	1.356	2.497	2.379	1.330	2.407	2.400
Average Net Width (m)	15.16	14.84	13.89	16.62	15.75	17.13	15.87	15.50
Performance Code	0	0	4.1	0	0	5.1	0	0
Surface Temperature (°C)	8	8	8.1	8.5	8.2	8.3	8.6	8.3
Bottom Temperature (°C)	3.3	3.7	3.4	3.4	3.6	3.7	3.4	3.5
Pacific Sleeper Shark					18.05			
Bering Skate				0.14	5.15	0.14		
Mud Skate		5.17						
Roughtail Skate								
Alaska Skate	7.72							
Aleutian Skate			7.78	5.81	13.66	6.24	14.68	12.31
Commander Skate		9.14	38.41	8.83		10.15	14.25	
Whiteblotched Skate	5.90	31.74	5.52			6.43		6.98
Whitebrow Skate		2.31	0.17	0.47	4.12	15.26	4.43	
Other Skates		0.22	0.00		0.02	0.01	0.03	
Arrowtooth Flounder	52.31	5.83		0.83	404.78	38.38	0.64	56.02
Kamchatka Flounder	7.15	6.47		9.84	38.04	2.77	18.46	2.81
Greenland Turbot		89.72		12.24	39.82	16.92	6.18	6.53
Pacific Halibut					25.05			
Flathead Sole	24.12	7.93		6.05	118.14	3.88		0.44
Rex Sole	2.02	1.14			3.84	0.23		83.84
Other Flatfish	3.20		6.16					
Pacific Grenadier			0.01				0.18	
Giant Grenadier		8123.27	223.21	738.83	22.34	630.44	1139.26	
Popeye Grenadier			96.02	107.08	0.17	0.70	149.15	
Pacific Cod	4.28							12.93
Walleye Pollock	0.34				20.65	0.64		1172.45
Blob Sculpin								
Bigmouth Sculpin				0.70	4.12	1.11		4.36
Other Sculpins	0.70	7.26	0.10	0.08	3.39	0.65		2.31
Twoline Eelpout				3.55		5.08	4.84	
Ebony Eelpout			3.16	8.14	0.49			
Black Eelpout			0.43	0.94	0.84	0.49	1.54	
Other Eelpouts							1.78	
Sablefish			4.86	6.98			9.82	
Searcher								
Blacktail Snailfish							4.22	
Other Snailfishes	1.93	6.80	0.03		3.99	5.63	1.07	
Poachers	0.34		0.02	0.15	1.26	0.10	0.86	0.62
Mesopelagic Fishes	0.01		0.17	0.19		0.13	0.05	
Other Fishes			0.06			1.31	1.65	
Shortspine Thornyhead		3.20	23.23	33.42	0.15	14.69	9.32	
Rougheye Rockfish		1.31			8.07			
Pacific Ocean Perch					2.31			
Shortraker Rockfish		9.10			13.22	4.11		
Northern Rockfish								
Grooved Tanner Crab			3.25	12.24		4.47	25.42	0.84
Tanner Crab	0.45							0.02
Triangle Tanner Crab				0.06				
Scarlet King Crab								
Golden King Crab		3.87						
Hermit Crabs	0.06			0.29	0.27	0.56	0.84	1.45
Snails			0.06	0.39	4.20	0.93	4.84	0.37
Clams					0.01		0.27	
Octopus	0.02		0.16	0.01	0.03	0.51	0.47	13.27
Squid		1.29		0.39	2.32		2.05	0.91
Sea Anemones, Corals	4.17	0.22	0.11	7.00	7.94	6.17	0.53	0.19
Jellyfish	2.46		0.29	3.45	4.32	2.14	0.30	0.89
Shrimps	0.03	0.08			2.60	2.02	0.39	1.67
Seastars	0.59	1.30	1.31	26.44	14.37		13.03	0.78
Other Invertebrates	2.93	2.64	0.28	0.07	4.33	1.63	69.77	0.42
Haul Total Weight (kg)	**120.73**	**8320.00**	**414.79**	**994.58**	**792.07**	**783.94**	**1500.30**	**1382.40**

Table A3. Continued.

Haul	115	116	117	118	119	120	121	122
Haul Date	8-Jul-2004	9-Jul-2004	9-Jul-2004	9-Jul-2004	9-Jul-2004	9-Jul-2004	10-Jul-2004	10-Jul-2004
Tow Start Latitude	59.82275	60.11158	60.21487	60.26942	60.36245	60.43369	60.59806	60.49509
Tow Start Longitude	-178.76579	-179.4809	-179.3544	-179.21181	-179.3237	-179.0461	-178.8204	-178.842
Tow End Latitude	59.80656	60.09095	60.1993	60.26045	60.34835	60.42355	60.57672	60.47863
Tow End Longitude	-178.7394	-179.4631	-179.3855	-179.2012	-179.2899	-179.0069	-178.8127	-178.8119
Station ID	366	400	394	401	385	374	354	352
Bottom Depth (m)	458	1110	933	962	750	473	235	293
Stratum Designation	62	65	64	64	63	62	61	61
Tow Duration (% of Hour)	0.5	0.53	0.52	0.25	0.51	0.51	0.51	0.52
Distance of Tow (nmi)	2.334	2.505	2.455	1.159	2.443	2.440	2.408	2.469
Average Net Width (m)	16.49	17.48	15.05	15.89	15.46	15.31	15.68	15.44
Performance Code	0	0	0	1.12	0	0	0	0
Surface Temperature (°C)	8.5	8.6	8.6	8.6	9	9.2	9.3	9.2
Bottom Temperature (°C)	3.8	2.7	2.6	3	2.9	3.5	3.3	3.3
Pacific Sleeper Shark								
Bering Skate	2.20							1.38
Mud Skate						1.11		
Roughtail Skate		11.37	6.53	7.31				
Alaska Skate							19.56	242.72
Aleutian Skate	10.64		14.70		7.18	17.12		46.40
Commander Skate	6.09		8.44	6.96	2.56	4.56		
Whiteblotched Skate						14.64		6.82
Whitebrow Skate	18.31		0.13		0.41		1.97	11.20
Other Skates	0.01		0.05	0.01	0.01			0.31
Arrowtooth Flounder	209.28						70.97	139.46
Kamchatka Flounder	23.17						9.36	0.52
Greenland Turbot	567.18			5.64		27.92	40.31	53.64
Pacific Halibut								
Flathead Sole	4.61						4.00	9.76
Rex Sole	1.17							3.30
Other Flatfish							0.38	
Pacific Grenadier		13.94	0.46	0.88				
Giant Grenadier	88.62	1778.32	1964.02	1483.82	1383.17	678.96		
Popeye Grenadier		41.24	110.76	39.96	5.28			
Pacific Cod							31.90	11.36
Walleye Pollock	10.11						68.90	12.78
Blob Sculpin		0.27						
Bigmouth Sculpin	1.61							3.02
Other Sculpins	0.71			0.02		0.04	5.52	14.70
Twoline Eelpout	7.35							
Ebony Eelpout						21.71		
Black Eelpout	5.17					0.37		
Other Eelpouts	0.01	0.00					0.80	1.06
Sablefish								
Searcher								
Blacktail Snailfish								
Other Snailfishes	6.18	1.72	0.73	2.36	0.54	1.26	1.60	5.53
Poachers	0.31						0.68	0.28
Mesopelagic Fishes	0.03	0.58	0.27	0.12	0.43	0.03		
Other Fishes	0.89	0.23			0.51			0.01
Shortspine Thornyhead	10.59				11.24			
Rougheye Rockfish								
Pacific Ocean Perch							0.20	140.35
Shortraker Rockfish								
Northern Rockfish								
Grooved Tanner Crab	0.41				3.11	10.67		
Tanner Crab							10.46	0.74
Triangle Tanner Crab		26.60	9.13	6.06	15.15	1.71		
Scarlet King Crab		5.18	9.69	6.75	1.86			
Golden King Crab	0.30							
Hermit Crabs	1.75						0.16	0.10
Snails	5.68	4.73	0.36	0.04	0.04	0.07	2.73	0.88
Clams								
Octopus	15.96	10.90	0.69		1.59	0.17	6.53	11.66
Squid	19.59	0.53	0.21		0.01	1.48	0.09	0.64
Sea Anemones, Corals	2.76	2.24	0.10	4.53		1.15	81.57	28.33
Jellyfish	2.41				0.17	3.90	1.01	0.46
Shrimps	1.65		0.03				7.23	7.28
Seastars	0.84	4.95	2.66	2.07	1.75	2.33	12.76	51.35
Other Invertebrates	202.61	61.21	0.03	0.47	0.00	0.00	22.35	2.29
Haul Total Weight (kg)	**1228.20**	**1964.00**	**2129.00**	**1567.00**	**1435.00**	**789.20**	**401.04**	**808.30**

Table A3. Continued.

Haul	123	124	125	126	127	128	129	130
Haul Date	10-Jul-2004	10-Jul-2004	10-Jul-2004	11-Jul-2004	11-Jul-2004	11-Jul-2004	11-Jul-2004	12-Jul-2004
Tow Start Latitude	60.40621	60.24598	60.17766	60.20623	60.09016	60.25125	60.20877	60.23959
Tow Start Longitude	-178.6824	-178.49409	-178.86391	-179.21339	-179.0674	-179.03191	-178.9189	-179.1268
Tow End Latitude	60.39474	60.2248	60.16566	60.2289	60.06836	60.2727	60.22533	60.2286
Tow End Longitude	-178.67191	-178.50169	-178.9046	-179.2218	-179.0708	-179.0231	-178.8896	-179.1284
Station ID	350	349	347	399	346	383	369	392
Bottom Depth (m)	295	213	382	1043	341	717	532	820
Stratum Designation	61	61	61	65	61	63	62	64
Tow Duration (% of Hour)	0.29	0.51	0.55	0.53	0.52	0.51	0.51	0.26
Distance of Tow (nmi)	1.399	2.392	2.632	2.562	2.431	2.432	2.459	1.224
Average Net Width (m)	15.46	16.07	14.66	15.22	14.73	15.06	14.93	15.60
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	9.2	9.2	9	8.8	9.4	9.3	9.5	9.2
Bottom Temperature (°C)	3.7	2.8	3.8	2.8	3.5	3.3	3.5	3.1
Pacific Sleeper Shark								
Bering Skate	0.67				1.02			
Mud Skate			4.78				9.39	
Roughtail Skate				9.70		3.01		
Alaska Skate	58.10	32.38			8.80			
Aleutian Skate	17.09	3.44				2.17	10.12	
Commander Skate				26.04		96.67	10.04	7.59
Whiteblotched Skate	30.94		2.23		8.06		5.72	
Whitebrow Skate			2.16	2.13	4.50	2.20	2.83	
Other Skates	0.02		0.03	0.07	0.02	0.07	0.04	0.05
Arrowtooth Flounder	218.98	85.70	287.92	1.16	208.02			
Kamchatka Flounder	20.78	0.30	14.82		9.82			
Greenland Turbot	47.28		131.68		20.32			
Pacific Halibut	7.32	6.31			3.38			
Flathead Sole	11.51	9.72	40.34		136.60			
Rex Sole	0.99		9.07		6.34			
Other Flatfish		2.02				2.44		
Pacific Grenadier				14.08				0.29
Giant Grenadier				1425.02		7088.43	9696.56	1703.80
Popeye Grenadier				50.24		47.65	0.13	20.02
Pacific Cod	4.68	118.36			4.78			
Walleye Pollock	6.14	296.17	33.00		26.40			
Blob Sculpin								
Bigmouth Sculpin		1.68			4.68			
Other Sculpins	14.08	0.74	25.04	0.52	8.01	1.77	6.44	0.13
Twoline Eelpout						5.49	2.20	
Ebony Eelpout				0.56			6.69	0.54
Black Eelpout					0.96		0.18	
Other Eelpouts	0.13			0.02				0.01
Sablefish							11.65	3.94
Searcher		0.18						
Blacktail Snailfish								
Other Snailfishes	2.48	0.10	4.54	11.94	3.63	1.98	3.30	2.07
Poachers		0.31	0.03		0.01			
Mesopelagic Fishes			0.70	1.05				0.54
Other Fishes			4.49	1.47	1.59			1.32
Shortspine Thornyhead						17.10	2.25	
Rougheye Rockfish								
Pacific Ocean Perch	5.61				2.94			
Shortraker Rockfish			1.14					
Northern Rockfish								
Grooved Tanner Crab				0.36		0.07		
Tanner Crab	0.05	0.57	0.09		0.85			
Triangle Tanner Crab				4.99		17.59	0.37	9.32
Scarlet King Crab				18.12		20.04		5.73
Golden King Crab							0.64	
Hermit Crabs								
Snails	0.28	0.16		0.08	1.10	0.18	0.09	0.07
Clams								
Octopus	2.18		15.59			2.99	7.03	1.50
Squid	0.16		2.33	0.15	0.46	0.81		
Sea Anemones, Corals	7.49	7.19	34.89	11.24	93.15	0.48	0.93	2.54
Jellyfish	2.37	1.14	1.04	1.05	2.59	0.23		0.96
Shrimps	1.25	0.15	2.12	0.02	2.39	0.07		0.04
Seastars	3.42	3.42	5.76	53.88	7.06	11.70	9.40	14.19
Other Invertebrates	0.21	1.86	55.52	2.11	0.79	0.01	2.33	0.82
Haul Total Weight (kg)	**464.22**	**571.90**	**679.31**	**1636.00**	**568.28**	**7323.14**	**9788.32**	**1775.48**

Table A3. Continued.

Haul	131	132	133	134	135	136	137	138
Haul Date	12-Jul-2004	12-Jul-2004	12-Jul-2004	12-Jul-2004	13-Jul-2004	13-Jul-2004	13-Jul-2004	13-Jul-2004
Tow Start Latitude	60.06291	59.94329	59.91764	59.85084	59.63873	59.55873	59.35424	59.3669
Tow Start Longitude	-179.1429	-178.9265	-178.93159	-178.7887	-178.519	-178.42821	-178.35989	-178.2587
Tow End Latitude	60.05165	59.92415	59.90229	59.86783	59.65245	59.53701	59.35597	59.37599
Tow End Longitude	-179.1391	-178.9059	-178.90089	-178.81689	-178.5489	-178.42979	-178.412	-178.29849
Station ID	368	345	367	344	378	364	396	388
Bottom Depth (m)	551	286	409	247	631	465	966	844
Stratum Designation	62	61	62	61	63	62	64	64
Tow Duration (% of Hour)	0.27	0.51	0.52	0.51	0.48	0.51	0.59	0.52
Distance of Tow (nmi)	1.269	2.421	2.425	2.467	2.288	2.415	2.974	2.486
Average Net Width (m)	15.51	15.33	16.40	15.74	16.78	17.77	14.07	15.40
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	9.4	9.1	9.2	9.2	9.2	9	9.3	9.3
Bottom Temperature (°C)	3.6	3.6	3.8	3.5	3.4	3.7	3	3.3
Pacific Sleeper Shark		4.74		10.40				8.38
Bering Skate	0.49	0.17		2.53		0.02		
Mud Skate								
Roughtail Skate					2.85		4.78	
Alaska Skate				4.87				
Aleutian Skate	10.62		1.66	17.33	12.45	17.95	1.79	3.65
Commander Skate	6.56		2.66		4.12		19.97	23.70
Whiteblotched Skate	2.68			12.05				
Whitebrow Skate	2.66		4.68	4.65	9.71	3.14	1.40	
Other Skates		0.03	0.06	0.01	0.04			0.69
Arrowtooth Flounder		116.84	192.78	131.84		32.49		
Kamchatka Flounder		6.49	21.43	8.59	21.84	8.89		3.89
Greenland Turbot	20.80		83.62	11.94	14.68	30.66	7.08	0.73
Pacific Halibut		3.19		15.52				
Flathead Sole	7.21	8.70	59.74	1.68		85.02		
Rex Sole		5.15	6.58	27.04				
Other Flatfish								
Pacific Grenadier					0.46		5.64	0.52
Giant Grenadier	602.66		15.14		1961.94	1506.15	601.16	752.57
Popeye Grenadier	34.05				251.46	0.60	126.10	117.89
Pacific Cod		5.43		12.55				
Walleye Pollock		97.88		139.45				
Blob Sculpin								
Bigmouth Sculpin		1.26	9.40					
Other Sculpins	0.01	2.78	3.38	1.55	0.05	0.10	0.01	
Twoline Eelpout	7.47				47.78	1.06		
Ebony Eelpout	0.64						0.07	
Black Eelpout	1.36	0.68	2.67	0.34	2.63	0.79		
Other Eelpouts					1.47	0.23	0.35	0.59
Sablefish	2.20		2.30		11.28	5.38	3.45	3.35
Searcher								
Blacktail Snailfish					3.87			
Other Snailfishes	0.44	0.77	2.05	0.24	0.13	2.11	0.86	0.34
Poachers		0.08	0.07	0.33	0.42	0.01		
Mesopelagic Fishes	0.31				0.02	0.02	0.04	0.13
Other Fishes		3.95	2.97		1.67	0.32		
Shortspine Thornyhead	1.49		4.44		8.76	17.52	0.70	
Rougheye Rockfish								
Pacific Ocean Perch		1.43						
Shortraker Rockfish						11.40		
Northern Rockfish								
Grooved Tanner Crab	2.62	0.22			20.38	1.83	8.42	3.12
Tanner Crab		0.01		0.01				
Triangle Tanner Crab	2.82		0.12		2.12		14.98	9.34
Scarlet King Crab							4.36	0.68
Golden King Crab								
Hermit Crabs	0.02	0.34	0.08	2.02	0.14	2.14		
Snails	1.58	2.99	0.26	2.19	4.49	3.10		0.54
Clams					0.06			
Octopus	6.97	5.58	4.08	3.42	2.26	0.25		0.06
Squid		1.44	1.42	1.40	0.30	2.73	0.20	
Sea Anemones, Corals	1.27	1.60	49.93	2.48	1.54	0.38	1.81	0.66
Jellyfish	5.26	3.64	2.08	2.50	1.62	1.03	3.39	0.03
Shrimps	0.22	6.09	3.08	4.04	0.07	0.17		
Seastars	2.11	2.39	3.30	0.75	6.84	2.95	3.53	16.94
Other Invertebrates	0.33	0.99	0.24	0.67	22.54	77.55	7.05	1.00
Haul Total Weight (kg)	**724.85**	**284.88**	**480.22**	**422.38**	**2420.00**	**1816.00**	**817.13**	**948.81**

Table A3. Continued.

Haul	139	140	141	142	143	144	145	146
Haul Date	14-Jul-2004	14-Jul-2004	14-Jul-2004	14-Jul-2004	14-Jul-2004	15-Jul-2004	15-Jul-2004	15-Jul-2004
Tow Start Latitude	59.51374	59.64364	59.50753	59.39818	59.39652	58.31059	58.2537	58.38887
Tow Start Longitude	-178.157	-177.8754	-177.84689	-177.8669	-177.60519	-175.31261	-175.5052	-175.571
Tow End Latitude	59.51933	59.65971	59.51231	59.38268	59.37294	58.31212	58.27174	58.37577
Tow End Longitude	-178.1151	-177.8447	-177.8044	-177.83369	-177.605	-175.3555	-175.53059	-175.5351
Station ID	338	335	336	359	329	269	277	260
Bottom Depth (m)	222	206	312	450	256	413	655	291
Stratum Designation	61	61	61	62	61	42	43	41
Tow Duration (% of Hour)	0.51	0.52	0.51	0.55	0.54	0.53	0.51	0.53
Distance of Tow (nmi)	2.462	2.490	2.469	2.559	2.620	2.537	2.510	2.557
Average Net Width (m)	16.29	15.63	15.16	16.87	15.63	15.56	16.12	14.04
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	9.5	9.5	9.4	9.6	9.5	9.5	9.6	9.7
Bottom Temperature (°C)	3.3	3.4	3.4	3.7	3.3	3.8	3.4	3.9
Pacific Sleeper Shark					8.10			43.80
Bering Skate	4.50	9.27	0.84	0.51	16.84	0.03		
Mud Skate					7.54			2.08
Roughtail Skate								
Alaska Skate	5.07	4.76			7.48			20.98
Aleutian Skate	5.25	0.98	9.56	15.10	30.52	7.87	13.47	
Commander Skate							26.98	
Whiteblotched Skate		5.03		41.48	6.49			
Whitebrow Skate	2.42	2.45	4.48		2.62	2.70		
Other Skates	0.05	0.03	0.20		3.05		0.03	0.04
Arrowtooth Flounder	22.39	229.08	89.72	8.20	41.46	4.02		71.06
Kamchatka Flounder	3.23	1.62	6.49	10.32	7.34	24.74	3.70	7.98
Greenland Turbot		8.80	1.70	85.64	8.03	70.10	11.24	
Pacific Halibut		6.34			3.80			
Flathead Sole	19.82	9.43	24.33	33.48	51.61	28.64		107.86
Rex Sole	21.34	27.54	0.58		1.63	35.33		26.96
Other Flatfish							16.35	1.07
Pacific Grenadier								
Giant Grenadier				1448.87		4592.47	1982.83	
Popeye Grenadier							72.62	
Pacific Cod	12.49	4.62	11.20					1.36
Walleye Pollock	128.30	60.82	93.88	1.50	367.52			106.56
Blob Sculpin								
Bigmouth Sculpin			2.65			1.88		
Other Sculpins	0.88	2.63	5.74	0.87	1.09	0.29		2.14
Twoline Eelpout				1.09			2.42	
Ebony Eelpout				37.12	0.65		7.83	
Black Eelpout			0.48	1.16	0.30	0.10		
Other Eelpouts	0.56	0.18	0.05	0.08			0.46	0.16
Sablefish				8.38			4.00	
Searcher					0.29			
Blacktail Snailfish							0.28	
Other Snailfishes	0.05	0.18	2.27	2.15	1.30			1.04
Poachers		0.13	0.58	0.03	3.46	0.46	0.13	1.99
Mesopelagic Fishes				0.10		0.01	0.22	
Other Fishes							2.76	15.48
Shortspine Thornyhead				2.01		18.40	11.74	
Rougheye Rockfish								
Pacific Ocean Perch			0.57		4.30	2.06		6.08
Shortraker Rockfish						2.45		
Northern Rockfish								
Grooved Tanner Crab				6.34				
Tanner Crab	0.98	3.64	0.36		0.28			
Triangle Tanner Crab				1.29			0.01	
Scarlet King Crab								
Golden King Crab			0.44					
Hermit Crabs	1.19	3.37	0.24		0.22			
Snails	1.99	3.75	0.55	0.06	1.15	0.19	0.14	
Clams	0.24	0.08						
Octopus			0.04		0.96	0.97		
Squid	0.50	0.53	0.29	1.69		0.26	0.18	0.29
Sea Anemones, Corals	0.76	0.40	1.35	162.92	3.45	5.48	0.16	5.40
Jellyfish	2.27	0.73	7.80	0.36	1.38	1.04	0.30	2.51
Shrimps	2.40	4.41	3.62		0.79	0.51		0.41
Seastars	1.44	0.47	23.75	1.24	0.68	1.83	7.08	3.99
Other Invertebrates	5.00	7.13	0.30	0.01	1.28	0.17	1.08	0.00
Haul Total Weight (kg)	**243.13**	**398.40**	**294.05**	**1872.00**	**585.59**	**4802.00**	**2166.00**	**429.24**

Table A3. Continued.

Haul	147	148	149	150	151	152	153	154
Haul Date	15-Jul-2004	16-Jul-2004	16-Jul-2004	16-Jul-2004	16-Jul-2004	17-Jul-2004	17-Jul-2004	19-Jul-2004
Tow Start Latitude	58.27024	58.64043	58.60518	58.5267	58.47472	57.85662	57.6925	55.94003
Tow Start Longitude	-175.45689	-175.3149	-175.1434	-174.82739	-174.7959	-173.88451	-174.1498	-170.0995
Tow End Latitude	58.26533	58.66243	58.61575	58.51756	58.49212	57.84494	57.68874	55.95037
Tow End Longitude	-175.41631	-175.3062	-175.10741	-174.7888	-174.81709	-173.8504	-174.0863	-170.0631
Station ID	262	257	267	281	288	250		183
Bottom Depth (m)	579	259	425	943	1123	353	136.00	655
Stratum Designation	42	41	42	44	45	41		23
Tow Duration (% of Hour)	0.51	0.53	0.51	0.52	0.48	0.51	0.81	0.56
Distance of Tow (nmi)	2.454	2.497	2.407	2.472	2.298	2.410	3.823	2.552
Average Net Width (m)	16.16	15.44	16.29	16.65	17.72	15.32	14.829	15.58
Performance Code	0	4.1	0	0	0	0	0	0
Surface Temperature (°C)	9.8	9.6	9.6	9.7	9.5	9.4	9.5	10
Bottom Temperature (°C)	3.4	3.7	3.8	3	2.7	3.8	4	3.3
Pacific Sleeper Shark				54.37				
Bering Skate	0.04		0.14			3.46	8.54	
Mud Skate						5.32		
Roughtail Skate				7.01				
Alaska Skate							22.68	
Aleutian Skate	6.30		50.16	15.27		38.32	20.76	3.88
Commander Skate	28.86			8.83				
Whiteblotched Skate		6.59	23.56					
Whitebrow Skate	0.86		2.84	0.76				3.79
Other Skates	0.01		0.01					
Arrowtooth Flounder		89.35	27.22			159.55	19.90	
Kamchatka Flounder	7.88	7.93	19.55	2.28		29.92	27.92	8.48
Greenland Turbot	25.32		71.78	6.31	2.32	7.48		37.36
Pacific Halibut		82.92				7.85	55.32	
Flathead Sole	0.44	59.26	29.75			9.98	152.91	
Rex Sole			9.12			10.53	7.86	
Other Flatfish							7.75	0.45
Pacific Grenadier					96.12			
Giant Grenadier	2685.30		2123.65	1276.36	3532.60	313.74		483.80
Popeye Grenadier	97.98			74.72	58.32			52.81
Pacific Cod		42.40					51.40	
Walleye Pollock			6.76			5.45	1.86	
Blob Sculpin					32.18			
Bigmouth Sculpin		2.46				0.73	26.36	
Other Sculpins	0.08	19.10	0.79			1.01	3.58	0.03
Twoline Eelpout	6.52		7.44	5.68	0.19			7.74
Ebony Eelpout					0.22			
Black Eelpout	0.05							0.10
Other Eelpouts								0.01
Sablefish	7.66		14.03	2.30				46.40
Searcher		5.10					41.23	
Blacktail Snailfish				0.25		3.05		4.20
Other Snailfishes	0.05			1.62	2.07	0.85		1.28
Poachers	0.11	0.06	0.08			0.64	0.06	0.07
Mesopelagic Fishes	0.05			0.06	0.24			0.13
Other Fishes		369.90		1.19	3.50	0.69	491.65	0.49
Shortspine Thornyhead	5.25		33.32					66.20
Rougheye Rockfish			4.95					
Pacific Ocean Perch		1670.14				30.88	285.87	
Shortraker Rockfish			23.18			43.70		16.10
Northern Rockfish							1750.42	
Grooved Tanner Crab	0.04				0.31			7.86
Tanner Crab						0.10	0.30	
Triangle Tanner Crab				14.93	0.53			
Scarlet King Crab				1.40				
Golden King Crab		4.46				3.84		
Hermit Crabs			0.30				3.88	0.29
Snails		1.26	3.08	1.10	0.89		4.89	1.48
Clams								
Octopus		0.05		9.08	7.38	0.04		0.26
Squid		0.72	4.22	0.64	0.32	9.94		0.81
Sea Anemones, Corals		0.39	0.98	10.24	6.24	3.96	0.54	0.94
Jellyfish	0.99		0.23			0.17	0.48	4.16
Shrimps		0.10	0.23		0.58	3.18		0.02
Seastars	6.93	6.58	15.89	1.68	16.01	5.75	331.77	61.25
Other Invertebrates	0.26	1.25	0.73	22.22	92.97	0.05	9.02	2.25
Haul Total Weight (kg)	**2881.00**	**2370.01**	**2474.00**	**1518.30**	**3853.00**	**700.18**	**3326.95**	**812.64**

Table A3. Continued.

Haul	155	156	157	158	159	160	161	162
Haul Date	19-Jul-2004	20-Jul-2004	20-Jul-2004	20-Jul-2004	20-Jul-2004	21-Jul-2004	21-Jul-2004	21-Jul-2004
Tow Start Latitude	55.97192	56.04038	55.97675	56.17116	56.20198	55.57828	55.56896	55.70906
Tow Start Longitude	-170.148	-169.3643	-169.54919	-169.4864	-169.2373	-168.8367	-168.7543	-168.81261
Tow End Latitude	55.96843	56.04613	55.98375	56.19125	56.19432	55.59021	55.58162	55.69328
Tow End Longitude	-170.1082	-169.32719	-169.52209	-169.5051	-169.2016	-168.8699	-168.7863	-168.78619
Station ID	165	163	188		172	190	184	153
Bottom Depth (m)	335	347	826	485	546	1015	873	225
Stratum Designation	21	21	24	22	22	25	24	21
Tow Duration (% of Hour)	0.53	0.5	0.39	0.53	0.5	0.52	0.5	0.51
Distance of Tow (nmi)	2.522	2.406	1.866	2.517	2.380	2.490	2.464	2.421
Average Net Width (m)	18.08	15.50	16.08	16.058	15.19	16.57	16.54	14.35
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	10.2	9.9	9.4	10.8	10.9	10.1	10	10.3
Bottom Temperature (°C)	3.9	3.9	3.1	3.6	3.5	2.8	3	3.9
Pacific Sleeper Shark								
Bering Skate	5.68							8.73
Mud Skate	2.38			5.00	6.22			1.91
Roughtail Skate						30.56	16.06	
Alaska Skate								
Aleutian Skate	45.60	6.32	34.27	5.00	42.33		8.21	33.36
Commander Skate			6.40	3.00	30.25			
Whiteblotched Skate	22.38			21.00	49.40			6.14
Whitebrow Skate			4.46	1.00	4.98			6.11
Other Skates	3.32			16.00	0.11			0.01
Arrowtooth Flounder	26.96	35.16		2.00	48.02			15.81
Kamchatka Flounder	29.22	151.60	27.21	53.00	145.00		3.00	1.84
Greenland Turbot			13.94	17.00	156.64	23.50	19.98	
Pacific Halibut		6.80			47.85			
Flathead Sole					1.65			44.51
Rex Sole	35.22	140.53		1.00	10.98			33.51
Other Flatfish			1.01					0.59
Pacific Grenadier						0.77		
Giant Grenadier		10.23	244.50	35.00	111.30	547.00	313.28	
Popeye Grenadier			60.62			101.85	45.26	
Pacific Cod	119.28	7.29						7.43
Walleye Pollock	50.28	2.44			0.74			126.68
Blob Sculpin			2.71			18.33		
Bigmouth Sculpin	5.36	11.98		1.00	9.91			
Other Sculpins	79.56	2.72		144.00	0.54			0.78
Twoline Eelpout			6.28		3.65		6.53	
Ebony Eelpout				5.00	22.46			
Black Eelpout		0.16	0.66	8.00	1.79		0.79	0.11
Other Eelpouts			0.01	2.00	0.00	0.01		
Sablefish	5.82		12.28				7.59	
Searcher								
Blacktail Snailfish			1.09		2.47			
Other Snailfishes		0.00	0.93	4.00	0.02	0.64	0.52	0.64
Poachers	1.45	0.08	0.20		0.04		0.17	0.08
Mesopelagic Fishes			0.08	37.00	0.41	0.47	0.41	
Other Fishes						1.47	0.61	1.00
Shortspine Thornyhead	22.70		26.05	42.00	83.30	1.44	21.68	
Rougheye Rockfish	18.77	1.71						0.70
Pacific Ocean Perch	173.85	20.46		1.00	0.76			490.31
Shortraker Rockfish	34.06		0.41	20.00	0.35			
Northern Rockfish								
Grooved Tanner Crab			42.12	1.00	5.90		7.88	
Tanner Crab		3.58						
Triangle Tanner Crab			1.09	3.00	0.27	33.87	54.39	
Scarlet King Crab						1.80		
Golden King Crab	1.74	28.07	0.65	45.00	15.30			
Hermit Crabs	0.09	0.07		4.00	0.02	0.02	0.12	0.07
Snails	0.22	0.14	0.28	1.00	0.39	0.57	1.11	0.27
Clams								
Octopus	1.90			1.00	0.60	2.40	2.00	
Squid	1.80	1.06	0.62	2.00	0.42		0.40	0.31
Sea Anemones, Corals	0.72	0.50		3.00	30.45			3.88
Jellyfish	7.64	1.33	1.28	3.00	2.37	2.07	0.25	0.96
Shrimps	0.71	0.51	0.09	39.00	0.08	0.11	0.21	0.14
Seastars	10.98	2.85	0.87	488.00	3.57		0.50	0.66
Other Invertebrates	118.66	91.55	3.53	13.00	0.04	233.95	133.36	3.35
Haul Total Weight (kg)	**826.35**	**527.15**	**493.64**	**1026.00**	**840.57**	**1000.83**	**644.29**	**789.90**

Table A3. Continued.

Haul	163	164	165	166	167	168	169	170
Haul Date	21-Jul-2004	23-Jul-2004	23-Jul-2004	23-Jul-2004	24-Jul-2004	24-Jul-2004	24-Jul-2004	24-Jul-2004
Tow Start Latitude	55.95048	57.79562	57.21199	57.00677	56.94727	57.07044	57.02696	56.92881
Tow Start Longitude	-168.93291	-174.194	-173.91701	-173.9711	-173.7188	-173.8273	-173.539	-173.3718
Tow End Latitude	55.94698	57.80497	57.18968	56.98802	56.94945	57.05323	57.00977	56.90471
Tow End Longitude	-168.9734	-174.23151	-173.9221	-173.9447	-173.7612	-173.8	-173.5184	-173.36861
Station ID	177	247	217	204	227	216	220	205
Bottom Depth (m)	735	329	409	824	707	512	726	213
Stratum Designation	23	41	32	34	33	32	33	31
Tow Duration (% of Hour)	0.52	0.51	0.53	0.55	0.54	0.53	0.46	0.55
Distance of Tow (nmi)	2.567	2.468	2.498	2.630	2.595	2.525	2.273	2.685
Average Net Width (m)	14.93	14.33	14.56	15.97	15.70	15.03	14.27	15.29
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	10.2	10.2	10.4	10.6	10.2	10	10.3	10.1
Bottom Temperature (°C)	3.1	3.9	3.9	3.1	3.1	3.6	3.2	3.9
Pacific Sleeper Shark					21.20			
Bering Skate			0.10			5.42		
Mud Skate	2.58	7.82	1.48				0.09	8.52
Roughtail Skate				7.11	8.19			
Alaska Skate		0.08						168.21
Aleutian Skate	15.61	30.40	8.11	6.00	17.45	11.49	20.32	128.70
Commander Skate	18.26			5.20	11.27	4.06	29.78	
Whiteblotched Skate	10.92	9.41						
Whitebrow Skate	2.12			0.38	3.36		0.79	2.58
Other Skates	0.06	0.04					0.01	291.17
Arrowtooth Flounder		168.85	3.39			2.27	1.81	136.90
Kamchatka Flounder	40.60	65.09	10.72	2.12	1.39	18.54	38.80	13.20
Greenland Turbot	37.96		5.23		26.95	24.12		
Pacific Halibut		8.22						30.83
Flathead Sole		6.20	210.40			38.23		66.10
Rex Sole		26.88	13.35			16.68		37.24
Other Flatfish	2.36	0.54			2.12			
Pacific Grenadier				8.61				
Giant Grenadier	252.44	75.89	394.90	2939.67	1313.40	1378.70	1126.93	
Popeye Grenadier	52.40			44.24	23.42	21.76	128.80	
Pacific Cod		25.56						128.04
Walleye Pollock		4.28				1.22		16.38
Blob Sculpin					8.96			
Bigmouth Sculpin		42.84	10.15			0.81		2.04
Other Sculpins	2.63	1.00	0.02				0.81	23.07
Twoline Eelpout	2.24					3.68	4.02	
Ebony Eelpout	19.09				8.15	7.00	6.48	
Black Eelpout	0.17			0.01	0.19	0.23		
Other Eelpouts		0.01					0.02	
Sablefish	15.45	3.88			13.22		22.54	
Searcher								5.85
Blacktail Snailfish	1.86			0.35	1.09	1.09		
Other Snailfishes	1.47			0.26	0.47	1.08	1.09	
Poachers	0.22	0.05	0.02		0.08	0.04		0.12
Mesopelagic Fishes	0.17		0.05	0.09	0.21	0.14	0.01	
Other Fishes	0.01	1.77	4.17	1.71			0.18	11.46
Shortspine Thornyhead	35.57	7.97	6.70	3.30	7.67	7.74	10.17	
Rougheye Rockfish		1.45	1.96					
Pacific Ocean Perch		7468.27						1308.29
Shortraker Rockfish		42.77	23.24					
Northern Rockfish								
Grooved Tanner Crab	5.25			4.02	11.86	1.38		
Tanner Crab			0.07					
Triangle Tanner Crab				4.02	0.37	1.28	7.91	
Scarlet King Crab	6.52							
Golden King Crab	10.66	6.14	2.10		2.45		0.03	
Hermit Crabs					0.02			0.01
Snails	0.15			0.02			0.04	5.00
Clams								
Octopus	0.75	0.61	1.37	0.05	0.17	0.08	1.11	2.72
Squid	0.41	0.93	0.50			0.39		1.34
Sea Anemones, Corals	0.07	0.36	4.72	0.09		1.97		1.26
Jellyfish	2.64		0.58	2.55		0.43	0.60	
Shrimps	0.04	2.97	0.34	0.00	0.00	0.01		7.85
Seastars	2.14	2.18	3.83	0.64	10.34	1.12	0.06	13.82
Other Invertebrates	0.17	231.20	0.25	1.57	0.00	0.05	1.59	5.30
Haul Total Weight (kg)	**543.01**	**8243.66**	**707.75**	**3032.00**	**1494.00**	**1551.00**	**1404.00**	**2416.00**

Table A3. Continued.

Haul	171	172	173	174	175	176	177	178
Haul Date	25-Jul-2004	25-Jul-2004	25-Jul-2004	26-Jul-2004	26-Jul-2004	26-Jul-2004	26-Jul-2004	26-Jul-2004
Tow Start Latitude	56.76717	56.9973	56.66417	56.50394	56.49662	56.55727	56.49761	56.46378
Tow Start Longitude	-173.44859	-173.5441	-173.2643	-172.2654	-172.18871	-172.09731	-171.99319	-171.8334
Tow End Latitude	56.78864	56.98341	56.65337	56.5082	56.50319	56.56204	56.48804	56.46335
Tow End Longitude	-173.4426	-173.5435	-173.2285	-172.30569	-172.2281	-172.1369	-171.9563	-171.7915
Station ID	226	402	225	241	239	200	213	199
Bottom Depth (m)	756	806	777	963	1020	279	598	352
Stratum Designation	33	34	33	34	35	31	32	31
Tow Duration (% of Hour)	0.52	0.33	0.52	0.53	0.52	0.52	0.53	0.54
Distance of Tow (nmi)	2.414	1.544	2.496	2.541	2.528	2.501	2.522	2.590
Average Net Width (m)	15.99	15.84	15.94	16.60	16.67	15.14	18.65	14.70
Performance Code	0	0	5.1	0	4.1	0	0	0
Surface Temperature (°C)	10.3	10.4	10.5	10.6	10.6	10.8	10.5	10.8
Bottom Temperature (°C)	3.3	2.8	3.1	2.8	2.7	4	3.5	4
Pacific Sleeper Shark								
Bering Skate						7.97		0.98
Mud Skate								
Roughtail Skate				6.77	5.60			
Alaska Skate						8.23		
Aleutian Skate	2.04	4.96	4.02	0.28		407.21	8.72	15.01
Commander Skate	15.13	14.88	9.51		0.99			
Whiteblotched Skate						7.95		
Whitebrow Skate	4.10		1.13					
Other Skates				0.01	12.52			
Arrowtooth Flounder						244.86	5.09	108.04
Kamchatka Flounder	16.32	5.06	9.32	3.02		13.39	25.37	6.25
Greenland Turbot	81.24	2.38		10.96			25.88	5.15
Pacific Halibut								
Flathead Sole						24.94		5.50
Rex Sole						91.00	4.89	128.06
Other Flatfish	2.00		0.68					
Pacific Grenadier		0.02	0.01	35.30	26.28			
Giant Grenadier	1894.05	2520.85	581.87	686.49	1453.02		805.96	
Popeye Grenadier	363.17	242.65	321.41	224.15	171.70		366.18	
Pacific Cod						29.92		25.60
Walleye Pollock						129.58		78.85
Blob Sculpin			49.66	9.23	8.47			
Bigmouth Sculpin						2.80		5.54
Other Sculpins	0.03	0.50				5.31	0.48	0.83
Twoline Eelpout	1.23		19.39		0.22		25.75	
Ebony Eelpout	8.41	0.17						
Black Eelpout	0.54		0.38				0.38	
Other Eelpouts		0.03			0.07		0.01	
Sablefish	4.29	3.53	15.95				4.24	0.91
Searcher								
Blacktail Snailfish	2.66		1.84	1.03			11.09	
Other Snailfishes	0.98	0.54	0.24	0.85	0.63	0.41	5.07	1.68
Poachers	0.23		0.15			3.25	0.13	2.71
Mesopelagic Fishes	0.12	0.02	0.07	0.59	0.23		0.04	
Other Fishes	0.50	2.30	3.03	0.36	0.78		0.16	1.78
Shortspine Thornyhead	45.46	2.81	38.24		1.20		5.39	
Rougheye Rockfish						1.14		
Pacific Ocean Perch						148.07		30.68
Shortraker Rockfish							2.35	4.66
Northern Rockfish								
Grooved Tanner Crab	36.50		8.80	0.12			5.88	
Tanner Crab						0.06		
Triangle Tanner Crab	0.70	3.96	11.15	0.70			0.45	
Scarlet King Crab		1.13			0.46			
Golden King Crab		0.37	0.17					3.85
Hermit Crabs			0.89			0.08	0.72	
Snails	0.39		0.77	0.06	0.09	0.27	1.16	0.24
Clams								
Octopus	0.04		1.25	3.45		1.00	0.12	0.71
Squid	1.17		0.02			0.37	0.43	2.25
Sea Anemones, Corals			0.02			0.05		0.38
Jellyfish		0.13	2.46	0.22	1.29		0.30	3.23
Shrimps		0.02			0.01	9.65	1.23	2.47
Seastars	0.69	0.01		20.98	0.28	3.31	2.52	0.94
Other Invertebrates	0.00	3.28	2.28	26.08	34.16	13.59	0.00	0.57
Haul Total Weight (kg)	**2482.00**	**2809.60**	**1084.70**	**1030.66**	**1718.00**	**1154.39**	**1310.00**	**436.85**

Table A3. Continued.

Haul	179	180	181	182	183	184	185	186
Haul Date	27-Jul-2004	27-Jul-2004	27-Jul-2004	27-Jul-2004	28-Jul-2004	28-Jul-2004	28-Jul-2004	28-Jul-2004
Tow Start Latitude	56.09099	56.16189	56.16168	55.5752	55.38978	55.41977	55.57114	55.4595
Tow Start Longitude	-169.1972	-169.0461	-168.5582	-168.828	-168.27991	-168.2659	-168.4711	-168.2023
Tow End Latitude	56.10056	56.1551	56.16557	55.58926	55.37663	55.40923	55.55871	55.445
Tow End Longitude	-169.2065	-169.0081	-168.57629	-168.8667	-168.25	-168.2321	-168.4373	-168.17261
Station ID	195	158	157	190	118	71	48	49
Bottom Depth (m)	1130	381	285	1016	607	411	210	243
Stratum Designation	25	21	21	25	13	12	11	11
Tow Duration (% of Hour)	0.26	0.51	0.25	0.63	0.51	0.51	0.53	0.52
Distance of Tow (nmi)	1.213	2.482	1.206	2.908	2.392	2.443	2.547	2.480
Average Net Width (m)	15.74	15.59	13.84	16.85	16.43	16.37	15.10	15.51
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	9.8	10.1	10.5	10.4	10.3	10.2	10.5	10.5
Bottom Temperature (°C)	2.6	3.9	4	2.9	3.6	4	4	4
Pacific Sleeper Shark								
Bering Skate		0.60				5.14	6.50	5.64
Mud Skate		2.68						
Roughtail Skate				9.41				
Alaska Skate							9.06	
Aleutian Skate	20.15	38.48	11.52	0.09	21.00	8.00	30.48	15.14
Commander Skate								
Whiteblotched Skate		7.68			5.09	4.84	15.06	15.75
Whitebrow Skate		6.38			2.20	5.26		
Other Skates							0.63	0.15
Arrowtooth Flounder		254.88	16.71			36.18	55.57	48.60
Kamchatka Flounder	3.52	6.74	18.40	5.25	65.34	17.70	5.84	3.83
Greenland Turbot	5.26	2.52		51.22	135.82	53.53		
Pacific Halibut		9.49						
Flathead Sole						43.98	26.83	37.50
Rex Sole		116.80	0.79			32.32	26.82	41.28
Other Flatfish					1.43	1.41		0.36
Pacific Grenadier	38.23			0.12				
Giant Grenadier	42.78			677.22	59.44	6.62		
Popeye Grenadier	172.76			199.26	3.96			
Pacific Cod		2.16	4.52				22.02	21.55
Walleye Pollock		94.70	5.03			13.54	166.72	47.69
Blob Sculpin				8.69				
Bigmouth Sculpin		14.40	10.42			0.57	0.79	3.79
Other Sculpins		0.28	2.96	0.15		1.20	2.14	9.55
Twoline Eelpout	16.93			13.66	68.23			
Ebony Eelpout	2.64				2.41			
Black Eelpout		0.51			0.55	2.34		0.25
Other Eelpouts	0.12					0.01		
Sablefish	6.67				14.08			
Searcher							0.28	
Blacktail Snailfish		6.20			3.04	2.07		
Other Snailfishes	2.47		0.24	1.20	1.82	0.98	4.83	4.10
Poachers	0.20	0.27	0.30		0.39	0.05	0.58	1.16
Mesopelagic Fishes	0.58	0.01	0.03	0.53	0.41	0.31		
Other Fishes				0.66	1.22			
Shortspine Thornyhead		46.86			104.25	37.64		
Rougheye Rockfish		16.26				6.42		0.21
Pacific Ocean Perch		6.20	41.99			2.72	107.84	5.36
Shortraker Rockfish		10.12						
Northern Rockfish								0.66
Grooved Tanner Crab	1.10	0.16			102.56	6.16		
Tanner Crab						0.25		0.34
Triangle Tanner Crab	27.09			56.51	3.18			
Scarlet King Crab	0.56							
Golden King Crab		59.46	37.02		2.16			
Hermit Crabs	0.15	0.11			0.84	0.03		0.13
Snails	2.64	0.09	0.06	0.45	3.49	0.56	1.49	1.13
Clams								
Octopus	0.36	0.22	1.03	0.36	0.43	0.40	4.08	2.70
Squid	0.15	3.83			0.86	14.42	1.26	0.38
Sea Anemones, Corals		11.82	3.04			17.27	2.63	2.98
Jellyfish	0.14	2.36	1.47	1.31	0.23	0.58		0.23
Shrimps		0.99	2.42	0.14	0.02	1.45	0.60	1.60
Seastars	0.49	17.36	0.38	0.43	3.63	4.73	2.23	0.68
Other Invertebrates	9.36	1.45	1.14	25.39	0.01	0.76	3.23	1.90
Haul Total Weight (kg)	**354.35**	**742.06**	**159.46**	**1052.06**	**608.08**	**329.43**	**497.51**	**274.62**

Table A3. Continued.

Haul	188	189	190	191	192	193	194	195
Haul Date	29-Jul-2004	29-Jul-2004	29-Jul-2004	29-Jul-2004	29-Jul-2004	30-Jul-2004	30-Jul-2004	30-Jul-2004
Tow Start Latitude	55.25818	55.30472	55.33329	55.22734	55.12762	54.94091	54.93826	54.96385
Tow Start Longitude	-168.0061	-167.9303	-168.0502	-167.8933	-167.81081	-167.78371	-167.6409	-167.6077
Tow End Latitude	55.27393	55.29066	55.31691	55.20864	55.10951	54.92692	54.92184	54.94707
Tow End Longitude	-168.0287	-167.9012	-168.0237	-167.87379	-167.7877	-167.76849	-167.6158	-167.58189
Station ID	117	42	68	74	89	149	93	96
Bottom Depth (m)	627	311	409	408	430	1016	522	452
Stratum Designation	13	11	12	12	12	15	12	12
Tow Duration (% of Hour)	0.47	0.52	0.52	0.52	0.52	0.38	0.52	0.52
Distance of Tow (nmi)	2.266	2.421	2.477	2.423	2.494	1.827	2.435	2.500
Average Net Width (m)	16.55	15.60	16.06	15.85	15.78	16.52	15.90	15.97
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	9.4	9.8	9.8	9.6	9.7	8.6	8.2	10
Bottom Temperature (°C)	3.5	4	3.8	3.8	3.8	2.8	3.8	3.8
Pacific Sleeper Shark	15.72							
Bering Skate		4.56	2.58		4.20		1.21	2.32
Mud Skate								
Roughtail Skate						7.37		
Alaska Skate								
Aleutian Skate	6.40	27.58	2.02	4.07	9.26	0.17	0.06	4.76
Commander Skate								
Whiteblotched Skate		7.68	38.30	4.01				
Whitebrow Skate	5.25	5.64					4.98	
Other Skates		1.60	0.56	0.41		0.01	0.08	0.05
Arrowtooth Flounder		42.97	46.04	14.34	3.94		4.16	6.38
Kamchatka Flounder	12.14	78.08	35.44	30.54	23.41	8.29	25.15	23.68
Greenland Turbot	132.35	12.64	193.51	8.41	17.54	9.35	33.51	39.25
Pacific Halibut								
Flathead Sole	0.94	3.60	20.88	29.80	45.08			
Rex Sole		238.58	39.01	55.40	26.56			5.25
Other Flatfish			1.87	0.86	4.61			0.79
Pacific Grenadier								
Giant Grenadier	136.34		184.16	38.14	225.80	199.01	676.27	50.56
Popeye Grenadier	52.96				1.36	415.46	3.72	
Pacific Cod		28.26						
Walleye Pollock		50.44	4.48	12.94	0.56		0.59	4.94
Blob Sculpin								
Bigmouth Sculpin	4.36	5.50	2.70	0.34	0.97			
Other Sculpins	0.56	4.87	0.68	0.14	0.31	0.00	0.13	
Twoline Eelpout	245.84		4.86	21.50	199.71	9.47	87.00	109.89
Ebony Eelpout	4.05							
Black Eelpout	0.27	0.47	0.85	1.96	0.78	0.29		0.21
Other Eelpouts					0.01	0.01	0.00	0.05
Sablefish	46.95	4.97	3.30	1.39	7.86	13.30	14.39	1.99
Searcher								
Blacktail Snailfish	3.98		0.84					1.39
Other Snailfishes	0.45	1.20	3.64	0.01	0.12	1.34	1.57	0.66
Poachers	0.41	0.07	0.08	0.01	0.09		0.04	0.05
Mesopelagic Fishes	0.10	0.03	0.30	5.18	0.19	0.50	0.19	2.99
Other Fishes	0.01						0.01	0.16
Shortspine Thornyhead	92.80	5.94	69.82	46.30	53.48	8.09	39.96	169.06
Rougheye Rockfish			2.44		1.52			
Pacific Ocean Perch		15.05	7.22	2.36	3.37			5.12
Shortraker Rockfish								
Northern Rockfish								
Grooved Tanner Crab	46.03		20.34	5.55	1.49			5.16
Tanner Crab				0.33				
Triangle Tanner Crab				0.91	0.59	33.77		0.01
Scarlet King Crab								
Golden King Crab					1.57			
Hermit Crabs	0.88	0.10	0.01	0.38	0.86	0.06	0.00	
Snails	7.43	7.19	1.14	0.20	2.33	0.65	3.09	0.36
Clams								
Octopus	0.95		0.05	0.04	0.35	0.51	0.63	0.07
Squid	6.01	5.23	9.80	7.90	10.95	0.48	5.56	1.88
Sea Anemones, Corals	0.17	3.05	21.30	19.55	22.91		1.74	13.03
Jellyfish			0.71	1.38		0.17	3.92	0.38
Shrimps		1.85	0.23	0.36	0.13		0.03	0.03
Seastars	9.02	14.66	10.34	7.87	14.56		155.04	10.95
Other Invertebrates	8.12	0.64	0.90	0.90	0.69	0.00	3.82	0.88
Haul Total Weight (kg)	**840.48**	**572.46**	**730.40**	**323.48**	**687.17**	**708.31**	**1066.85**	**462.30**

Table A3. Continued.

Haul	196	197	198	199	200	201	202	203
Haul Date	30-Jul-2004	30-Jul-2004	31-Jul-2004	31-Jul-2004	31-Jul-2004	31-Jul-2004	1-Aug-2004	1-Aug-2004
Tow Start Latitude	55.03708	55.1243	54.52795	54.48179	54.35295	54.35794	54.49024	54.5182
Tow Start Longitude	-167.4097	-167.5251	-167.6817	-167.86951	-167.9733	-167.8483	-167.41991	-167.034
Tow End Latitude	55.05104	55.10819	54.54956	54.50846	54.37431	54.38186	54.51237	54.52967
Tow End Longitude	-167.4402	-167.4966	-167.6937	-167.85519	-167.95531	-167.8407	-167.4315	-167.03191
Station ID	39	22	130	146	145	129	121	100
Bottom Depth (m)	233	206	817	1016	1020	924	640	460
Stratum Designation	11	11	14	15	15	14	13	12
Tow Duration (% of Hour)	0.52	0.52	0.52	0.64	0.54	0.56	0.52	0.27
Distance of Tow (nmi)	2.502	2.554	2.534	3.106	2.646	2.712	2.571	1.281
Average Net Width (m)	15.93	15.41	17.40	15.56	16.34	16.67	16.71	14.06
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	9.6	9.7	9	10.1	10.1	10	9	9.1
Bottom Temperature (°C)	4.1	4.1	3.1	2.8	2.8	2.9	3.3	3.8
Pacific Sleeper Shark				15.37			8.74	
Bering Skate	2.17	3.36						2.16
Mud Skate								
Roughtail Skate				18.71		5.72		
Alaska Skate		9.08						
Aleutian Skate	3.73	19.18					13.56	
Commander Skate								
Whiteblotched Skate								
Whitebrow Skate								
Other Skates	0.02		0.01	0.33	0.34	0.11		
Arrowtooth Flounder	111.02	131.73					2.53	3.46
Kamchatka Flounder	11.23	13.93	2.10	3.00	4.12	5.50	9.09	5.10
Greenland Turbot		8.71	18.00	11.73	24.12	15.02	389.06	10.89
Pacific Halibut		6.04						
Flathead Sole	126.12	237.26						19.85
Rex Sole	33.50	43.72						12.44
Other Flatfish			8.12					
Pacific Grenadier				1.85	31.71	0.00		
Giant Grenadier			744.78	487.78	3023.24	411.22	576.07	69.98
Popeye Grenadier			76.83	72.09	27.31	92.90	6.87	
Pacific Cod	7.69	8.30						
Walleye Pollock	867.34	231.72						
Blob Sculpin			0.07	6.29	46.85	3.60		
Bigmouth Sculpin								
Other Sculpins	3.04	1.95		0.02			0.16	0.74
Twoline Eelpout			2.32	6.35	1.90	2.40	14.08	49.06
Ebony Eelpout								1.06
Black Eelpout			0.41			0.05	0.26	0.58
Other Eelpouts				0.01	0.08	0.02		
Sablefish			10.63			12.46	12.88	11.82
Searcher	0.27							
Blacktail Snailfish			0.31					
Other Snailfishes	0.82	1.12	0.94	2.69	2.33	1.56	0.39	
Poachers	0.17	0.24	0.04				1.09	0.30
Mesopelagic Fishes	0.08	0.04	0.95	1.69	1.24	1.34	0.38	0.57
Other Fishes			0.33	0.49		0.15		0.57
Shortspine Thornyhead			3.04	3.16	2.86	3.09	12.17	33.08
Rougheye Rockfish	12.24	2.45						
Pacific Ocean Perch	53.88							
Shortraker Rockfish								
Northern Rockfish	1.24							
Grooved Tanner Crab							43.75	0.09
Tanner Crab	1.40	1.20						
Triangle Tanner Crab			27.99	79.95	25.09	43.13		
Scarlet King Crab								
Golden King Crab					0.02			
Hermit Crabs	0.53	0.05	0.05	0.06	0.27	0.33	1.22	0.02
Snails	1.76	2.54	1.89	4.06	1.19	43.17	6.56	5.69
Clams				0.00				0.02
Octopus	1.20	55.59	0.32				4.24	0.70
Squid	0.26	0.43		0.28			0.72	2.12
Sea Anemones, Corals	5.19	5.68	0.11					0.45
Jellyfish	1.07	5.51	0.35	0.66	1.37	0.98	0.29	
Shrimps	1.63	0.40	0.44	1.40	0.95	0.82	0.14	0.15
Seastars	2.42	0.07	0.28		7.38		23.77	18.07
Other Invertebrates	0.11	0.18	0.32	0.91	53.63	13.05	22.79	162.29
Haul Total Weight (kg)	**1250.13**	**790.47**	**900.64**	**718.87**	**3256.01**	**656.61**	**1150.81**	**411.24**

Table A3. Continued.

Haul	204	205	206	207	208	209	210	211
Haul Date	1-Aug-2004	1-Aug-2004	1-Aug-2004	2-Aug-2004	2-Aug-2004	2-Aug-2004	2-Aug-2004	3-Aug-2004
Tow Start Latitude	54.60425	54.67381	54.71684	54.30608	54.37733	54.44492	54.59768	54.28288
Tow Start Longitude	-167.1895	-167.0977	-167.25459	-166.9066	-166.83099	-166.85381	-166.8862	-167.7796
Tow End Latitude	54.58542	54.65513	54.69447	54.31924	54.37947	54.44273	54.57558	54.28087
Tow End Longitude	-167.1642	-167.09689	-167.25	-166.9426	-166.8699	-166.8947	-166.8873	-167.73599
Station ID	97	94	52	143	106	55	73	144
Bottom Depth (m)	463	424	459	1017	619	518	416	1016
Stratum Designation	12	12	12	15	13	12	12	15
Tow Duration (% of Hour)	0.56	0.44	0.53	0.57	0.53	0.54	0.53	0.58
Distance of Tow (nmi)	2.655	2.077	2.511	2.764	2.542	2.671	2.464	2.852
Average Net Width (m)	14.22	14.29	15.10	16.23	14.51	14.65	14.86	15.14
Performance Code	0	0	0	0	4.2	0	0	0
Surface Temperature (°C)	8.7	8.9	8.4	9.2	7.8	8.7	8.1	9.8
Bottom Temperature (°C)	3.8	3.9	3.8	2.8	3.4	3.6	3.9	2.7
Pacific Sleeper Shark								
Bering Skate	0.02		0.99	0.23		4.66	3.10	
Mud Skate								
Roughtail Skate				21.83				3.92
Alaska Skate								
Aleutian Skate	25.40		4.22	0.99	0.63	4.38	7.36	
Commander Skate								
Whiteblotched Skate			3.86				7.82	
Whitebrow Skate				2.33	2.93			
Other Skates						0.03		0.03
Arrowtooth Flounder	3.84	14.44	5.85		2.07		11.13	
Kamchatka Flounder	27.16	53.26	65.77		8.78	20.38	104.55	
Greenland Turbot	52.61		13.60	17.61	11.94	19.28	18.48	22.32
Pacific Halibut						37.00	19.02	
Flathead Sole	10.28	177.73	29.10			51.36	122.96	
Rex Sole	14.78	14.84	14.51				22.08	
Other Flatfish								
Pacific Grenadier				0.96				14.08
Giant Grenadier	156.42	36.27	145.75	704.53	306.46	119.42	142.53	693.54
Popeye Grenadier				93.74				179.27
Pacific Cod								
Walleye Pollock	0.57	2.28	0.63				7.72	
Blob Sculpin				7.06				49.55
Bigmouth Sculpin								
Other Sculpins	1.49	0.60	0.24		1.10	1.77	1.83	0.01
Twoline Eelpout	64.48	15.57	28.62	2.34	129.29	119.61	25.00	4.47
Ebony Eelpout	8.86	1.22			4.06	8.90		
Black Eelpout	0.63	0.72	0.45	0.44	1.05	0.67	0.90	
Other Eelpouts	0.01		0.01	0.01		0.00		0.10
Sablefish	10.65		1.29	39.02	65.00	49.42	6.38	
Searcher								
Blacktail Snailfish					0.23			
Other Snailfishes	0.03		1.05	3.31	0.30	0.04	0.33	1.94
Poachers	0.35	0.06	0.42	0.02	1.17	0.32	0.42	
Mesopelagic Fishes	1.53	3.30	1.60	3.61	0.04	0.26	0.95	1.22
Other Fishes			1.85					3.01
Shortspine Thornyhead	48.05	38.07	75.97		37.74	45.20	72.26	
Rougheye Rockfish								
Pacific Ocean Perch	2.43	1.84	1.82				3.30	
Shortraker Rockfish		0.55						
Northern Rockfish								
Grooved Tanner Crab			0.60		15.74	1.19		
Tanner Crab								
Triangle Tanner Crab	0.13			64.19		0.24	0.35	50.34
Scarlet King Crab								
Golden King Crab	0.87		0.83		0.55	0.84		
Hermit Crabs	0.15	0.51	1.75	0.18		0.46	1.36	
Snails	9.34	9.70	11.09	2.57	8.68	12.01	8.38	3.02
Clams	0.02				0.06	0.02		
Octopus	2.21	1.22	2.11		2.77	1.97	3.07	
Squid	2.51	5.52	3.32	1.39	2.11	1.49	4.92	0.01
Sea Anemones, Corals	1.01	0.48	1.27			0.15	0.74	0.02
Jellyfish		0.44		0.11	0.46	0.96		3.41
Shrimps	0.35	0.04	0.00	1.90	0.02	0.13	0.22	0.98
Seastars	32.36	27.72	26.04		8.77	21.71	59.73	
Other Invertebrates	38.61	2.08	0.49	22.16	316.32	261.82	13.15	2.87
Haul Total Weight (kg)	**517.15**	**408.44**	**445.09**	**990.54**	**928.27**	**785.69**	**670.05**	**1034.11**

Table A3. Continued.

Haul	212	213	214	215	216	217	218	219
Haul Date	3-Aug-2004	3-Aug-2004	3-Aug-2004	3-Aug-2004	4-Aug-2004	4-Aug-2004	4-Aug-2004	4-Aug-2004
Tow Start Latitude	54.34589	54.41187	54.43368	54.80444	54.81839	54.88134	54.86826	54.82407
Tow Start Longitude	-167.3884	-167.40199	-167.13251	-167.23959	-167.1259	-166.9675	-166.82201	-166.8405
Tow End Latitude	54.34759	54.41276	54.43088	54.82092	54.83447	54.87196	54.85925	54.81605
Tow End Longitude	-167.34891	-167.3636	-167.0943	-167.2652	-167.15311	-166.9321	-166.7867	-166.80479
Station ID	127	108	54	88	38	20	14	51
Bottom Depth (m)	768	677	538	412	348	240	214	262
Stratum Designation	13	13	12	12	11	11	11	11
Tow Duration (% of Hour)	0.52	0.52	0.54	0.52	0.52	0.52	0.52	0.52
Distance of Tow (nmi)	2.574	2.507	2.501	2.465	2.503	2.505	2.477	2.467
Average Net Width (m)	16.45	16.24	15.12	16.06	17.75	16.45	15.12	16.68
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	8.4	8.9	9.3	9.3	8.7	10.5	10	9.9
Bottom Temperature (°C)	3	3.2	3.5	4	4	4.2	4.2	4.2
Pacific Sleeper Shark								
Bering Skate			1.96	4.47	1.70	8.36	7.82	4.44
Mud Skate								
Roughtail Skate	12.30							
Alaska Skate								
Aleutian Skate		7.59				2.25	6.38	41.13
Commander Skate								
Whiteblotched Skate								
Whitebrow Skate	0.24	1.12						
Other Skates	0.04	0.01			0.01	0.01	0.01	0.05
Arrowtooth Flounder				58.23	31.60	179.61	226.24	275.41
Kamchatka Flounder	17.64	7.19	3.18	93.61	62.39	18.77	0.22	9.93
Greenland Turbot	36.91	47.18	16.91	5.08	2.67			
Pacific Halibut				89.33		10.18		11.27
Flathead Sole				29.59	6.44	91.55	77.08	101.14
Rex Sole			0.58	49.84	31.76	15.86	20.22	15.52
Other Flatfish				2.26		0.48		
Pacific Grenadier								
Giant Grenadier	822.45	439.66	129.96	14.84				
Popeye Grenadier	95.43	28.62						
Pacific Cod						4.73		2.67
Walleye Pollock				3.96	14.74	77.58	1.48	8.70
Blob Sculpin								
Bigmouth Sculpin							11.42	
Other Sculpins			0.43	0.11	2.73	4.52	3.66	3.12
Twoline Eelpout	8.61	10.59	59.41	1.54	1.11			
Ebony Eelpout			1.24					
Black Eelpout	0.03	0.49	0.18	0.36	0.61			
Other Eelpouts				0.01	0.01			
Sablefish	2.98	17.43	25.13					
Searcher								
Blacktail Snailfish	4.17	4.72						
Other Snailfishes	1.28	2.08	0.08	0.01		0.16	1.40	0.38
Poachers	0.11	0.53	0.48	0.17	0.42	0.09		
Mesopelagic Fishes	1.53	1.04	0.39	0.27	0.97	2.84	0.30	0.19
Other Fishes			1.05	1.28	0.54			
Shortspine Thornyhead	1.59	8.76	25.44	155.48	76.45			
Rougheye Rockfish				2.04	2.19	2.18	5.40	1.06
Pacific Ocean Perch				4.50	14.56	2.77	9.82	6.66
Shortraker Rockfish			3.73		4.98			
Northern Rockfish								
Grooved Tanner Crab				0.73				
Tanner Crab							1.66	0.17
Triangle Tanner Crab	36.84	43.84	0.26	0.14				
Scarlet King Crab								
Golden King Crab				0.85				
Hermit Crabs	0.13	0.36	0.04	2.04	2.12			0.05
Snails	3.45	4.37	4.92	6.10	4.57	3.66	1.10	1.84
Clams							0.28	
Octopus		0.06	2.48	1.45	0.84		0.33	0.42
Squid	0.94	0.67	0.28	2.79	5.04	2.87	0.08	3.44
Sea Anemones, Corals			0.50	6.39	6.43	2.18	10.70	2.97
Jellyfish	1.89	0.56			0.05	4.04	0.43	8.70
Shrimps	0.56	0.13		0.31	0.13	0.93	1.21	3.42
Seastars	0.23	2.06	53.92	74.07	62.08	1.95	0.04	0.44
Other Invertebrates	0.03	0.08	376.42	7.55	0.91	0.24	0.22	0.26
Haul Total Weight (kg)	**1049.37**	**629.15**	**708.98**	**619.38**	**338.06**	**437.79**	**387.51**	**503.40**

Table A3. Continued.

Haul	220	221	222	223	224	225	226	227
Haul Date	4-Aug-2004	5-Aug-2004	5-Aug-2004	5-Aug-2004	5-Aug-2004	5-Aug-2004	6-Aug-2004	6-Aug-2004
Tow Start Latitude	54.64337	54.31069	54.37974	54.42823	54.43645	54.57648	54.4538	54.48837
Tow Start Longitude	-166.74339	-166.61659	-166.5	-166.431	-166.6107	-166.59891	-166.222	-166.3214
Tow End Latitude	54.6404	54.31315	54.37774	54.42815	54.43737	54.57169	54.45442	54.49317
Tow End Longitude	-166.70531	-166.5773	-166.53841	-166.455	-166.64931	-166.6362	-166.24271	-166.35789
Station ID	36	134	105	85	56	76	59	84
Bottom Depth (m)	369	803	613	552	535	413	517	495
Stratum Designation	11	14	13	12	12	12	12	12
Tow Duration (% of Hour)	0.53	0.53	0.53	0.33	0.53	0.53	0.3	0.51
Distance of Tow (nmi)	2.494	2.584	2.510	1.562	2.506	2.470	1.344	2.420
Average Net Width (m)	16.00	15.77	15.10	16.04	15.59	15.58	15.84	15.42
Performance Code	0	0	3.13	0	0	0	4.2	0
Surface Temperature (°C)	9.3	9.5	8.9	9.4	9.4	9.3	7.3	9.3
Bottom Temperature (°C)	4	3	3.5	3.6	3.6	3.9	3.6	3.6
Pacific Sleeper Shark		25.75						
Bering Skate	4.06	0.13	8.88		13.88	6.54	3.64	5.25
Mud Skate								
Roughtail Skate		4.08						
Alaska Skate								
Aleutian Skate	212.72	1.86	22.18	9.23	28.88	8.15	43.38	31.22
Commander Skate			3.18	23.46		3.81		19.12
Whiteblotched Skate	18.88			3.72		6.33		
Whitebrow Skate			1.78	2.14	8.05	2.97	2.32	5.98
Other Skates		0.15	0.02		0.02		0.02	
Arrowtooth Flounder	178.67			3.07	8.63	7.06	2.12	11.08
Kamchatka Flounder	42.51	8.84	27.47	7.38	46.03	35.46	16.62	49.34
Greenland Turbot	14.04	123.68	107.16	104.60	34.36	131.20	124.22	196.05
Pacific Halibut	24.19							37.00
Flathead Sole	116.64			31.84	122.98	127.00	72.91	92.14
Rex Sole	22.02		0.02			26.76		3.26
Other Flatfish	0.77			2.06		2.39		
Pacific Grenadier								
Giant Grenadier		425.84	356.48	60.56	157.22	16.56	30.60	62.94
Popeye Grenadier		116.11						
Pacific Cod								
Walleye Pollock	15.70					52.36	2.74	
Blob Sculpin								
Bigmouth Sculpin	17.72					9.02		5.88
Other Sculpins	8.71	0.01	1.07	0.59	1.06	1.27	1.13	0.97
Twoline Eelpout	2.75	125.43	183.24	46.70	116.95	19.90	168.19	185.80
Ebony Eelpout			5.26	17.34	15.64	3.88	20.56	27.96
Black Eelpout	0.23	2.32	1.34	1.21	1.25	0.39	0.82	1.97
Other Eelpouts		0.00			0.00	0.02	0.01	
Sablefish	12.58	58.20	99.42	62.20	75.05	20.02	65.86	40.22
Searcher								
Blacktail Snailfish		2.84					1.30	1.96
Other Snailfishes	1.30	2.17	0.92	0.35	0.45	0.01	0.17	
Poachers	0.04	0.73	1.42	0.17	0.27	0.26	0.21	0.35
Mesopelagic Fishes	2.25	0.91	0.10	0.56	0.33	1.62	0.63	0.37
Other Fishes	5.56	0.70				1.81	0.11	0.09
Shortspine Thornyhead	85.34	19.26	82.18	52.68	50.44	86.06	50.68	98.34
Rougheye Rockfish	7.62							
Pacific Ocean Perch	16.60				0.75	2.07		1.25
Shortraker Rockfish					0.37			1.08
Northern Rockfish								
Grooved Tanner Crab		0.40	7.14	4.31	5.82			1.52
Tanner Crab								
Triangle Tanner Crab	0.19	91.65	0.75		0.10		4.60	1.54
Scarlet King Crab								
Golden King Crab			0.41	0.93	0.27		1.42	1.75
Hermit Crabs	4.41	0.26	0.05	0.38	1.42	3.80	0.73	1.64
Snails	6.39	5.66	6.96	7.04	7.18	17.60	13.88	41.09
Clams							0.00	
Octopus	0.52	4.04	6.40	0.22	2.01	0.99	1.72	0.87
Squid	2.81	0.84		0.62	2.08	1.61	2.96	7.36
Sea Anemones, Corals	7.66	0.06	0.01		169.58	0.92	0.12	0.69
Jellyfish	0.19	0.75	0.56	0.57		1.27	0.03	0.84
Shrimps	0.06	0.67	0.14	0.08	0.76	0.56	0.13	0.05
Seastars	10.27	1.67	14.24	11.91	20.76	34.32	9.02	18.86
Other Invertebrates	1.00	0.30	139.22	164.37	33.20	54.10	319.64	305.01
Haul Total Weight (kg)	**844.40**	**1025.31**	**1077.99**	**620.30**	**925.79**	**688.08**	**962.50**	**1260.86**

Table A3. Continued.

Haul	228	229	230	231	232	233	234	235
Haul Date	6-Aug-2004	6-Aug-2004	6-Aug-2004	7-Aug-2004	7-Aug-2004	7-Aug-2004	7-Aug-2004	7-Aug-2004
Tow Start Latitude	54.56982	54.67021	54.7333	54.77468	54.76067	54.76721	54.75563	54.72081
Tow Start Longitude	-166.25571	-166.1181	-166.1981	-166.31731	-166.0152	-165.9174	-165.7657	-165.7149
Tow End Latitude	54.5709	54.66798	54.73457	54.77306	54.75959	54.76446	54.75536	54.71975
Tow End Longitude	-166.2159	-166.1566	-166.23779	-166.27901	-165.9762	-165.879	-165.72749	-165.67571
Station ID	58	33	12	34	23	10	11	9
Bottom Depth (m)	422	315	243	209	210	203	222	267
Stratum Designation	12	11	11	11	11	11	11	11
Tow Duration (% of Hour)	0.55	0.52	0.53	0.52	0.52	0.52	0.53	0.54
Distance of Tow (nmi)	2.588	2.495	2.574	2.474	2.517	2.498	2.464	2.533
Average Net Width (m)	15.32	15.55	16.05	15.39	15.56	15.33	15.03	15.15
Performance Code	0	0	0	0	0	0	0	0
Surface Temperature (°C)	9.5	9.7	8.3	8.7	8.1	8.1	8.2	7.6
Bottom Temperature (°C)	3.7	4	4.2	4.5	4.6	4.5	4.3	4
Pacific Sleeper Shark								
Bering Skate	32.80	9.36	3.56	11.10	8.37	13.27	41.55	21.96
Mud Skate								
Roughtail Skate								
Alaska Skate			15.03		7.28	8.48	117.22	16.52
Aleutian Skate	62.34	77.85	18.16				166.90	9.33
Commander Skate								
Whiteblotched Skate							6.54	
Whitebrow Skate		14.09					3.33	3.43
Other Skates		0.04			0.61	3.67	1.12	0.64
Arrowtooth Flounder	29.19	1462.03	395.31	221.19	99.65	98.26	59.29	78.12
Kamchatka Flounder	370.09	74.65	4.94			2.41	6.21	1.38
Greenland Turbot	47.14	53.86						
Pacific Halibut	23.69		8.22					4.10
Flathead Sole	355.58	25.14	66.31	32.67	48.21	27.64	8.28	15.28
Rex Sole	86.44	23.00	21.41	1.64	18.45	56.84	39.23	46.28
Other Flatfish			0.45		0.56		0.52	
Pacific Grenadier								
Giant Grenadier								
Popeye Grenadier								
Pacific Cod				11.46	1.09	25.76	25.72	5.51
Walleye Pollock	21.40	1154.04	86.51	167.90	213.50	882.31	132.76	262.40
Blob Sculpin								
Bigmouth Sculpin						8.88	3.02	1.55
Other Sculpins	3.65	15.72	7.22	6.70	6.68	5.81	11.39	20.40
Twoline Eelpout	92.30							
Ebony Eelpout	28.58							
Black Eelpout	0.41							
Other Eelpouts	0.02							
Sablefish	103.32	16.74						
Searcher								
Blacktail Snailfish								
Other Snailfishes	1.09	13.76	7.86	3.31	2.81	2.02	8.79	23.64
Poachers	0.22	0.02	0.24	0.03	0.96	1.92	7.51	20.34
Mesopelagic Fishes	4.18	0.20		0.00	0.02			0.02
Other Fishes					9.07		0.45	0.83
Shortspine Thornyhead	262.87							
Rougheye Rockfish		10.73	9.66		0.02	0.28		
Pacific Ocean Perch	1.77	17.17	2.73	7.35	0.72	4.58	3.96	3.68
Shortraker Rockfish								
Northern Rockfish				0.81			0.56	
Grooved Tanner Crab								
Tanner Crab			0.02	4.60	50.07	109.11	3.65	9.10
Triangle Tanner Crab	4.17							
Scarlet King Crab								
Golden King Crab								
Hermit Crabs	1.82	0.14	0.06			1.16	0.10	0.05
Snails	64.69	8.69	2.60	2.11	0.47	6.02	2.67	0.54
Clams								
Octopus	7.40	0.63	1.95		8.51	4.14	4.44	4.55
Squid	6.88	6.98				0.10		1.83
Sea Anemones, Corals	12.40	5.62	17.53	30.76	8.53	7.95	9.55	4.72
Jellyfish	0.94	0.05	0.07	0.19				
Shrimps	1.08	5.64	8.20	4.50	2.96	3.81	9.89	4.31
Seastars	26.32	13.14	0.05	0.11	0.05	0.18	0.49	0.44
Other Invertebrates	2.06	0.74	0.24	0.13	0.02	1.88	0.99	0.77
Haul Total Weight (kg)	**1654.83**	**3010.00**	**678.34**	**506.57**	**488.61**	**1276.48**	**676.14**	**561.73**

Table A3. Continued.

Haul	236	237	238	239	240
Haul Date	8-Aug-2004	8-Aug-2004	8-Aug-2004	8-Aug-2004	8-Aug-2004
Tow Start Latitude	54.43639	54.4605	54.48882	54.58627	54.63544
Tow Start Longitude	-166.0359	-165.9283	-165.8412	-165.7061	-165.6394
Tow End Latitude	54.42464	54.48318	54.46661	54.57425	54.61127
Tow End Longitude	-166.0457	-165.9286	-165.8476	-165.7068	-165.64169
Station ID	103	80	60	28	24
Bottom Depth (m)	591	502	452	369	331
Stratum Designation	12	12	12	11	11
Tow Duration (% of Hour)	0.3	0.52	0.52	0.28	0.56
Distance of Tow (nmi)	1.450	2.520	2.511	1.336	2.690
Average Net Width (m)	15.75	15.73	16.94	14.44	14.31
Performance Code	0	0	0	0	0
Surface Temperature (°C)	7	7.3	7.5	7.8	7.7
Bottom Temperature (°C)	3.3	3.7	3.8	4	4
Pacific Sleeper Shark			8.20		
Bering Skate	7.98	2.49	5.80	1.64	
Mud Skate		1.34		10.96	2.21
Roughtail Skate					
Alaska Skate	0.88				
Aleutian Skate	57.03	14.12			
Commander Skate	9.27				
Whiteblotched Skate					
Whitebrow Skate	63.66		3.20		
Other Skates	0.10		0.06	1.39	1.07
Arrowtooth Flounder		25.96	16.48	54.23	109.03
Kamchatka Flounder	8.72	5.16	6.24	5.74	10.58
Greenland Turbot	2298.74	105.63	58.60		11.00
Pacific Halibut					
Flathead Sole			1.16	35.08	96.58
Rex Sole		5.30	12.58	6.79	32.09
Other Flatfish		1.12	0.76		1.09
Pacific Grenadier					
Giant Grenadier	22.46	6.80			
Popeye Grenadier	0.43		0.35		
Pacific Cod					
Walleye Pollock		8.81	37.38	49.42	73.32
Blob Sculpin					
Bigmouth Sculpin		0.64	2.68		7.84
Other Sculpins	0.25	1.13	6.41	12.34	11.20
Twoline Eelpout	170.30	258.44	195.38		
Ebony Eelpout	3.74	0.52			
Black Eelpout	0.67	1.18	4.23	0.91	0.25
Other Eelpouts	0.01	0.01	0.01		
Sablefish	37.18	66.62	53.38	4.84	7.46
Searcher					
Blacktail Snailfish	0.01				
Other Snailfishes	0.20	0.01	0.03	8.39	10.96
Poachers	3.01	0.29	0.18	2.06	1.11
Mesopelagic Fishes	0.48	1.19	2.75		0.13
Other Fishes		3.47	9.22	0.32	1.03
Shortspine Thornyhead	56.54	103.44	20.68		
Rougheye Rockfish				1.46	
Pacific Ocean Perch		1.58	2.88	4.93	12.91
Shortraker Rockfish					
Northern Rockfish					
Grooved Tanner Crab					
Tanner Crab		0.50	2.00		2.35
Triangle Tanner Crab	55.85	43.18	8.71		
Scarlet King Crab					
Golden King Crab					
Hermit Crabs		0.32	0.34	0.10	
Snails	6.85	8.04	10.02	0.33	0.07
Clams					
Octopus	0.83	1.30	2.18	4.61	
Squid	1.08	3.24	6.54	1.31	2.16
Sea Anemones, Corals	0.01	19.46	11.23	10.82	2.01
Jellyfish				0.12	
Shrimps	0.26	0.00	0.07	5.56	2.44
Seastars	6.75	11.50	22.34	3.69	0.13
Other Invertebrates	330.73	4.49	0.53	1.44	7.15
Haul Total Weight (kg)	**3144.02**	**707.27**	**512.60**	**228.49**	**406.16**

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