OCS Study
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Southwest Florida Shelf Ecosystems Study

Volume III: Annotated Bibliography

One-Volume Edition

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

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1.0 INTRODUCTION

The objective of the Southwest Florida Shelf Ecosystems Study was to synthesize all field data (collected during the 5-year field study) and data from other sources in order to produce a concise, coherent description of the biota conditions and processes in the study area. This description provided MMS with the information necessary to allow informed decisionmaking for critical offshore development issues that fall within MMS's offshore leasing responsibilities. Throughout the first five years of the program, approximately 24 volumes (8,000 to 10,000 pages) of information were provided to MMS. This information, although critical to the program, was somewhat limited in value to decisionmakers because of its sheer volume. Consequently, the objective of the Year 6 study was to summarize, interpret, and synthesize this large data set to provide detailed descriptions of the systems and processes on the Florida shelf, and use this information to assess potential impacts of offshore development that can be directly used for stipulations and guidelines for developing Florida's offshore resources. A further objective was to assure that all available data were identified and considered before final assessments were made, and that any differences or data gaps were identified before development plans were approved or finalized. The information collection task of the Year 6 study was implemented to meet this final objective.

The methods used in the information collection effort and a copy of the bibliography that resulted from this effort are presented in this volume. The synthesis methods and the results of the synthesis effort are described in Volumes I (Executive Summary) and II (Synthesis Report).

An Information Collection Plan was designed to ensure that relevant information was collected in an efficient and cost.effective manner and with the proper emphasis relative to the overall goals of the program.

This plan, the information sources, topics, a description of the Annotated Information System, and National Oceanographic Data Center (NODC) data submission procedures are discussed in the following sections.

2.0 INFORMATION COLLECTION PLAN

An inherent problem in any information collection effort is the tendency for that effort to get out of control, resulting in the depletion of available funds and yet not meet the original program goals. To avoid this problem, an Information Collection Plan was devised. The first phase of this plan was to conduct a Program Initiation Workshop where the Principal Investigators, as well as representatives from the Minerals Management Service (MMS), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and the Florida Governor's Office, met to present and discuss possible valued ecosystem components (VECs) which would define the various conceptual submodels. The VECs chosen by the attendees of this meeting also were used to direct the information collection effort.

The next step of the Information Collection Plan was to determine the limits for information collection. Spatial, temporal, and topical limits were used to control information collection. The spatial or geographic limits were varied, depending on the topic. The geographic limits for meteorology or physical oceanography delineated a larger area than the limits for biology or geology, for example. The geographic limits for this program were set as follows:

1. Biology, fisheries/socioeconomics, and geology--Seaward from the west coast of Florida (excluding estuaries such as Charlotte Harbor) to the 200-m isobath and from 27°N latitude to just below the Florida Keys (approximate latitude--24°30´N);

2. Meteorology, physical oceanography, and chemical oceanography--From a line lying as far inland as 20 km (in the case of meteorology) to longitude 85°W and from latitude 27°N to an approximate latitude of 24°30´N.

Because the biological communities in a specific region were being described, the limits for biology (as well as for fisheries/ socioeconomics and geology) were more specific and delineated a smaller area. The limits for physicochemical and meteorological information. however, delineated a larger and less specific area. This is because certain physical phenomena, important to the biological communities, must be examined on scales at which these phenomena exist (e.g., Loop Current eddies).

The geographic limits, however, had to have some flexibility because strict adherence to them could have resulted in data gaps critical to synthesis. For example, descriptions of unique biological communities exist for the study area [e.g., the MMS reports for Years 1 through 5 (Woodward Clyde Consultants, 1983., Woodward Clyde Consultants and Continental Shelf Associates, Inc, 1984., Woodward Clyde Consultants and Skidaway Institute of Oceanography. 1983; Continental Shelf Associates, Inc., 1987; Environmental Science and Engineering, Inc. and LGL Ecological Research Associates, Inc., 1985., and Danek

and Lewbel, 1986)]. However, no data (other than laboratory tests) exist on the effects of drilling fluid discharges on these communities. Therefore, data from other locales were included, thus exceeding the geographic limits for certain topics.

Temporal limits extended from the earliest available information to the present. The Annotated Information System includes information from ongoing projects as well.

Topical limits were more difficult to set. Limits used in this study were based on the guidelines established by Mahadevan et al. (1984) in the preparation of their bibliography. These limits were that behavioral, morphological, or taxonomic studies of single species would be de-emphasized, unless these species were designated as VECs. Unlike Mahadevan et al. (1984), method descriptions were de-emphasized unless site specific. These topical limits precluded overloading the Annotated Information System with data that, although important, were not germane to the overall goals of this program.

As the information collection continued, the necessity for certain special inclusions and exclusions became evident. The geographic limits as set forth in the RFP, particularly the easternmost geographic limit (i.e., the west coast of Florida), required that marine, estuarine, or intertidal information for certain Florida counties be included. These counties included: Sarasota, Lee, Collier, Charlotte, Monroe (which includes the majority of the references on Florida Bay), and the gulf-side references for Dade.

Certain generic references were included because of their topical content and regardless of their geographic limits. These special inclusions included: any discussions of hydrocarbons in the marine environment (water column. sediments, and biota). the effects of drilling or drilling fluids and cuttings, the effects of offshore oil and gas development, discussions regarding biological processes or communities and the physical processes that affect each, important pelagic fishes (e.g., billfishes), and reports presenting the results of similar studies.

In an effort to contain the size of the Annotated Information System, certain topics were excluded unless geographically relevant, such as estuaries, mangroves, marshes, intertidal zones, and littoral zones. The exclusion of these references for all but the six counties (previously discussed) resulted in as much as 20% reduction in the size of the Annotated Information System. This is particularly important because the Annotated Information System was installed on a microcomputer hard-disk drive to ensure greater flexibility for MMS.

An Information Collection Log was used by information collection personnel. The purpose of this log was threefold: (1) to ensure uniformity in collection techniques of the three contractors, (2) to ensure that all information that must accompany any references or data for submission to the Annotated Information System is obtained, and (3) to enable personnel to enter information into the Annotated Information System directly from the log.

The Information Collection Log contains the following information:

1. Author, publication date, and title;
2. Publication information;
3. Key words;
4. Abstract;
5. Geographic location for study (including latitude, longitude, Marsden squares, and geographic place names);
6. Type and time of data collection and number of stations;
7. Availability, location, and contact (primary and secondary) for data;
8. Description of data processing methods, format of data, and estimate of data quality; and
9. Project personnel making contact and how and when contact was made.

3.0 INFORMATION SOURCES

Numerous databases, agencies, institutions, private companies, and individuals were investigated as potential sources of relevant information. The majority of the information was obtained from existing databases or literature, although telephone calls and visits to specific individuals or agencies were occasionally used to collect information:

As expected, the majority of the site.specific information was contained in the reports authored by Woodward Clyde Consultants, Continental Shelf Associates, Inc., Environmental Science and Engineering, Inc., and LGL Ecological Research Associates, Inc. for Years 1 through 5 of the Southwest Florida Shelf Ecosystems Program. In addition to these reports, other publications provided relevant information or lists of other publications that might be relevant. These publications included:

1. Mahadevan et al (1984),
2. Barry A. Vittor and Assoc., Inc. (1985);
3. Florida Department of Administration (1975);
4. Science Applications International Corp. (1986);

5. Science Applications International Corp. (1987);
6. Alexander et al. (1977);
7. Jones et al. (1973);
8. The State University System of Florida Institute of Oceanography (1974);
9. Woodward Clyde Consultants and Continental Shelf Associates, Inc. (1982),
10. Boesch and Rabalais (1985), and
11. Minerals Management Service (1983).

The basis for this project's Annotated Information System was the references contained in the Tuscaloosa Trend's bibliography provided to Environmental Science and Engineering, Inc. by MMS on microcomputer diskettes. The 1,106 references contained on these diskettes were transferred into the Annotated Information System; 657 were deleted because they were considered not relevant to the Southwest Florida Shelf Ecosystems Program. Although approximately 60% of the references were deleted, the project was saved effort and cost because the 449 entries retained would have required a considerable amount of time to enter manually into the Annotated Information System.

In addition, 559 references from the Mote Marine Laboratory bibliography (Mahadevan et al., 1984) were added to the Annotated Information System. These references were chosen either because they were topically or geographically relevant to this program. Many of the county-specific references were obtained from this bibliography.

The remainder of the information was obtained from libraries, computerized literature searches, searches of existing agency databases, and visits to various agencies and institutions. A search of the various libraries produced nearly 200 additional references not included in the previously mentioned sources. The majority of these references included some of the most current information available.

Additional information was obtained from databases accessed using the Lockheed DIALOG Information Retrieval Service. DIALOG currently accesses more than 220 databases containing in excess of 110 million records. The databases accessed (and the number of "hits" using the key words gulf, Mexico, shelf) are presented below:

1. AQUATIC SCIENCE ABSTRACTS (186),
2. BIOSIS PREVIEWS (54),
3. CHEMICAL EXPOSURE (20),
4. DOE ENERGY (339),
5. ENVIROLINE (34),
6. ENVIRONMENTAL BIBLIOGRAPHY (7),
7. FEDERAL RESEARCH IN PROGRESS (10),
8. FLUIDEX (2),
9. GEOARCHIVE (258),
10. LIFE SCIENCES COLLECTION (24),
11. MET/GEOASTRO ABSTRACTS (55),
12. NTIS (176),
13. OCEANIC ABSTRACTS (159),
14. P/E NEWS (678),
15. POLLUTION ABSTRACTS (15),
16. SCISEARCH (39),
17. SSIE CURRENT RESEARCH (31),
18. TRIS (14),
19. WATER RESOURCES ABSTRACTS (137), and
20. ZOOLOGICAL RECORD (45).

Of these databases, Numbers 1, 3. and 7 produced no hits until the key word "shelf" was excluded. Additional key words (e.g., environmental) were used to reduce the total number of hits and increase the level of relevance for database Numbers 4, 9, 12, and 14. The remainder of the database references were printed as offline abstracts without any additional manipulation.

A special DIALOG search was conducted for information of the biological effects of offshore drilling. The key word used was "offshore drilling". The choice of databases rather than key words was used to increase the relevance of the articles retrieved. These databases included:

1. BIOSIS PREVIEWS (26),
2. SCISEARCH (83),
3. LIFE SCIENCES COLLECTION (13),
4. CA SEARCH (100), and
5. ZOOLOGICAL RECORD (6).

If a database such as P/E NEWS had been searched using the key word "offshore drilling," there would have been a large number of hits; however, the relevancy of the articles would have been quite low (presumably emphasizing the engineering aspects of offshore drilling rather than the environmental aspects).

Another special DIALOG search was conducted for any information regarding the physical oceanography of the Gulf of Mexico. No geographic restraint was placed on the search other than it be limited to articles on the Gulf of Mexico. The key words used to conduct this search included: physical, oceanography, currents, waves, hurricane, density, loop, current, tides, and inertial. A search of the five most relevant databases (OCEANIC ABSTRACTS, NTIS, MET/GEOASTRO ABSTRACTS, DISSERTATION ABSTRACTS, and CONFERENCE PAPERS) yielded a total of 434 hits. A number of these articles were duplicated among these databases.

Computer or manual searches of various existing agency databases were conducted. The agencies included:

1. NODC;
2. National Climatic Data Center (NCDC);
3. National Geophysical Data Center (NGDC), and
4. U.S. Geological Survey (USGS).

Visits to various agencies, institutions, and private companies or organizations were conducted to obtain information not available from the previously described sources. These included:

1. U.S. Fish and Wildlife Service,
2. Minerals Management Service,
3. NOAA Atlantic Oceanographic and Meteorological Laboratories,
4. NOAA/NMFS Southeast Fisheries Center,
5. NOAA/NESDIS,
6. U.S. National Park Service,
7. U.S. Geological Survey,
8. Florida Department of Natural Resources,
9. Florida Institute of Oceanography,
10. University of South Florida,
11. Florida Department of Environmental Regulation,
12. Florida State University,
13. University of Florida,
14. University of Miami, and
15. Mote Marine Laboratory.

4.0 INFORMATION TOPICS

To meet the goals of this program, numerous data types or topics had to be synthesized. These data types included physical, geological, chemical, biological, and socioeconomic. The actual synthesis of information required slight differences in the delineation of categories to ensure goals were met. For information collection, the categories described previously were sufficient; discussions of each follow.

Physical Data
These data included meteorology, hydrography, and dynamic processes (atmospheric and marine phenomena). Specifically, meteorological data consisted of winds, temperature, barometric pressure, solar radiation, relative humidity, precipitation, and any other parameter considered essential for information synthesis. Hydrographic data included salinity, temperature, density, water transmissivity (e.g., depth of photic zone), and any other physical data germane to this program. The dynamic processes, both atmospheric and marine phenomena, included weather systems, winds, front propagation, storms, waves, ocean currents, upwellings, and dispersive and diffusive processes. Particular emphasis was placed on relatively short-time-scale phenomena such as Loop Current boundary perturbations and hurricanes. Although these last two phenomena occur on a relatively short time scale in the study area, each can cause perturbations of considerable magnitude in the environment.

Chemical Data
These data included the dissolved gases (particularly oxygen), nutrients, yellow substance (Gelbstoff), trace and heavy metals, hydrocarbons, and other contaminants. In addition, chlorophyll and primary productivity data were collected, even though these data may be more properly considered biological. Chemical data for the atmosphere, water column, sediments, and biota were obtained.

Geological Data
Information topics included surface and subsurface geological features, the geologic history of the west Florida shelf, surficial sediment composition (grain size, percent carbonate, mineralogy, trace and heavy metals, hydrocarbon concentrations, etc.), and sediment dynamics (resuspension, bed load transport, etc.). The majority of the information specific to the study area was collected during the Years 1 through 5 investigations and, therefore, was readily accessible to the project team. Additional collections focused primarily on data that were useful for interpretation of benthic biological data and prediction of impacts related to oil and gas exploration and development--including information concerning spatial distribution patterns of different substrate types, dynamics of unconsolidated sediments. and sediment trace metals and hydrocarbon concentrations.

Biological Data
Topics for biological data collection included (1) benthic communities (infauna, epiflora, sessile epifauna, motile epifauna, and demersal fishes), (2) populations of commercially or economically important species (principal biota. many of which were designated VECs), (3) biologically sensitive areas, (4) finfish (including pelagic species) and shellfish populations. (5) endangered species, and (6) short-term biological phenomena (e.g., red tides). Benthic biological data collection focused on spatial and seasonal patterns of species composition, abundance, and diversity, and relationships to environmental variables. Topics such as substrate affinities, trophic relationships, and sensitivity/tolerance to sedimentation--important factors through which oil and gas exploration and development impacts are likely to be mediated--received special attention during the collection process. Data concerning population locations of commercially or ecologically important species were compiled. These principal biota included

major finfish and shellfish species harvested in the area as well as key habitat formers such as agariciid corals and seagrasses. Literature and data on locations of population centers and important habitat areas such as spawning or nursery grounds were identified for the key fish and shellfish species. Information concerning endangered or threatened species and critical habitats (e.g., nesting areas or migration routes) in and near the study area were compiled. Short-term biological phenomena, such as dinoflagellate blooms that are responsible for red tides, also were investigated. Records of total or near-total defaunation of reef communities have been reported following particularly intense red tides. The effects of these natural disasters (red tides, hurricanes, etc.) must be considered when discussing biological and physical processes on the southwest Florida shelf.

Socioeconomic Data

Information collection focused on fish and shellfish resources in relation to local economies. The most recent catch statistics available for southwest Florida coastal counties were compiled in terms of poundage and dollar values for major species landed. Data concerning locations and relative importance to local economies of major harvest areas in and near the study area were collected.

5.0 ANNOTATED INFORMATION SYSTEM

MMS required a system that could contain all available information collected during the data and literature search. This system must have the capability to:

1. Sort by key words, words in title, author, sampling location, and source;
2. Print out entire reference list as sorted above;
3. Print out only references that fit a series of criteria;
4. Count number of references that fit a series of criteria before printing them out; and
5. Have the ability to update.

Several existing formats for the database and manipulative programs, as well as the efficacy of developing a new format and manipulative program, were examined. Quantus, Inc., the Barry Vittor and Associates' subcontractor responsible for the Tuscaloosa Trend bibliography, was contacted to determine precisely which system thy were using and whether it could be adapted to this project, thereby unifying two MMS databases. Quantus, Inc., had a database, but did not have a manipulative program (Farmer, 1985, personal communication). Because at that time MMS did not know which type of computer (microcomputer, minicomputer, or mainframe computer, onto which the system would be installed, Quantus Inc., had not developed specific software for MMS. During the interim period, Quantus, Inc., was using DBASE III to manipulate the database.

It was further determined that Quantus, Inc., was using the FAMULUS format. This format, part of the FAMULUS system, was developed in the 1960s and is still widely used by government agencies. FAMULUS (the program and format) was designed to process personal reference collections maintained by researchers. Nevertheless, its basic structure renders it suitable for a large number of other applications; for this purpose, FAMULUS can be regarded as a general-purpose text-handling system. FAMULUS will maintain many types of information files which can be broken into units or records with subcategories or fields that can be identified. The record may have up to 10 distinct fields. In bibliographic files, the citation is the record, and fields are used for author, date, title, key words, abstracts, etc. The FAMULUS format requires that a record consist of 4,000 characters, regardless of the number of fields or actual characters required. Any unused characters become blanks.

FAMULUS was designed for minicomputers and had considerable power with respect to update capabilities, etc. Unfortunately, no program code could be located for FAMULUS. It is probable that FAMULUS cannot be adapted to a microcomputer. Because MMS had not specified the type of computer, the decision was made to model the Southwest Florida Shelf Ecosystems Program's information system after the one designed for the Tuscaloosa Trend. Therefore, although the FAMULUS format was chosen as the format for the database, a manipulative program compatible with a microcomputer was chosen. A microcomputer system was chosen because the hardware and software are less expensive than the hardware and software for a minicomputer or mainframe computer. For example, the cost for an off-the-shelf database program for a microcomputer is approximately $600, whereas the cost for similar software for a minicomputer would have been approximately $20,000. Existing software was chosen rather than attempting to develop software specific to this project. Mote Marine Laboratory had developed a microcomputer program for their bibliography (Mahadevan et al., 1984). The cost for this program, according to Mahadevan (1986, personal communication), was considerably more than anticipated (in the tens of thousands of dollars). Therefore, the decision was made to use off-the-shelf software instead of developing software specifically for the Southwest Florida Shelf Ecosystems Program.

After evaluating various available database manipulative programs, it was decided to use PCINFO

rather than DBASE III. PCINFO was one of the few microcomputer data management systems capable of manipulating databases and records the size required by this project and the FAMULUS format, respectively. In addition, PCINFO was considered more user friendly because it could be modified to use a variety of menus to guide the user through the system. Although PCINFO meets the minimum requirements of this project, improvements could be made. The edit features are cumbersome using this, or any microcomputer, database software. The problem results from the large size of the database (in excess of 6 megabytes) and the record size as dictated by the FAMULUS format (4,000 characters). These problems could be circumvented on a minicomputer or mainframe computer; this however, would have resulted in MMS purchasing expensive software and hardware. Therefore, the approach was considered the most cost-effective compromise. Although the system is somewhat awkward, it is reasonably inexpensive, and hardware in the form of drives and microcomputers was readily available.

The Annotated Information System currently consists of the database (in FAMULUS format), a modified menu-driven version of PCINFO, and a Seagate 20-megabyte external hard disk drive. This system was transferred to MMS where it can be connected with any compatible microcomputer.

The system's current capabilities include:

1. Addition of new records;
2. Deletion of unwanted records;
3. Editing of existing records;
4. Searching by accession number, author, date, and key word;,
5. Sorting alphabetically by author or numerically by accession number; and
6. Printing of all or selected records in brief or extended format.

New records are added through manual keyboard entry. Deletion is accomplished using known accession numbers; however, this is a slow process because the system resorts the entire database after each deletion. The edit feature, as mentioned previously, is the most cumbersome. Currently, editing consists of re-entering entire lines within a field. The program as it exists cannot perform editing like a word processor (e.g., single deletions, insertions, type-overs, text moving, etc.). The search option provides considerable flexibility with regard to the fields chosen to search and the format of key words. The maximum number of key words allowed is 15. The key words currently being used in the key word field of the system are presented in Table 5.1. After the search has been completed, the system will print out each record on a separate page (in the extended format) or four records per page in the brief format.

6.0 NODC SUBMISSIONS AND DATA MANAGEMENT

Data management and submission of relevant data to NODC were included as part of the Information Collection Task. This sub-task involved identification, evaluation, and procurement of data sets (provided that the data were amenable to conversion to NODC format). This criterion for submission to NODC was established to ensure that this subtask did not exhaust the budget for the entire project.

Potential data sets were identified from several sources, including the articles already contained in the Annotated Information System, the existing "Report of Observations/Samples Collected by Oceanographic Programs (ROSCOP) Second Edition" forms listed in Ralph Childers Associates (1984), and interviews conducted either in person or via telephone. Information collection personnel, using the Information Collection Log described previously, attempted to obtain the all of the following data.specific information:

1. Geographic location (in the form of latitude/longitude, place names, NEDRES codes, Marsden Squares),
2. Data type,
3. Sampling methods,
4. Number of stations,
5. Earliest and latest or completion date of sampling,
6. Sampling frequency.
7. Data availability (nonproprietary, proprietary, primary and secondary contact name, address, and telephone number),
8. Data processing and analysis methods,
9. Data quality estimate, and
10. Data format or products.

Table 5.1 Southwest Florida Shelf Ecosystems Program keyword list.

ABUNDANCE
AERIAL SURVEY
AGARCIA
AIR PRESSURE
AIR TEMPERATURE
ALGAE
ALGAL NODULE
ALIPHATIC COMPOUNDS
ALKALINITY
ALLIGATOR
AMINO ACIDS
AMMONIA
ANADYOMENE
ANCHOR DAMAGE
ANNELIDA
ANNELID
AROMATIC COMPOUNDS
ARTHROPOD
ARTHROPODA
ARTIFICIAL HABITAT
ARTIFICIAL REEF
ASSEMBLAGE
ATMOSPHERIC CIRCULATION
ATP
AVES
BACTERIA
BARIUM
BAROMETRIC PRESSURE
BARRIER ISLAND
BASELINE STUDY
BATHYMETRY
BAY
BED FORM
BEHAVIOR
BEHAVIORAL
BENTHIC
BENTHIC COMMUNITY
BENTHIC FAUNA
BENTHIC FLORA
BENTHOS
BIBLIOGRAPHY
BILLFISH
BIOACCUMULATION
BIOASSAY
BIOGEOGRAPHY
BIOLOGICAL
BIOLOGY
BIOMAGNIFICATION
BIOMASS
BIOTA
BIRD
BLUE CRAB
BOAT
BOD
BOTANY
BOTTOM CURRENT
BOTTOM PRESSURE
BOTTOM SEDIMENT
BREEDING
BREEDING CYCLE
BROWN SHRIMP
CADMIUM
CALCIUM
CALCIUM CARBONATE
CALICO SCALLOP
CALORIC CONTENT
CARBOHYDRATES
CARBON
CARBON-14
CARBONATE
CAROTENOIDS
CATCH STATISTICS
CETACEA
CETACEAN
CHARLOTTE
CHEMICAL
CHEMICAL OCEANOGRAPHY
CHEMISTRY
CHLORINE COMPOUNDS
CHLOROPHYLL
CHROMIUM
CHRONOLOGY
CIRCULATION
CLAY MINERALOGY
CLIMATIC DATA
CLIMATOLOGY
COASTAL
COASTAL MORPHOLOGY
COASTAL RESOURCE
COASTAL WATER
COASTAL ZONE
COELENTERATE
COLLIER
COLONIZATION
COMMENSAL
COMMERCIAL FISHERY
COMMUNITY
COMMUNITY STRUCTURE
CONTINENTAL MARGIN
CONTINENTAL SHELF
CONTINENTAL SLOPE
COPPER
CORAL
CORALLINE
CRAB
CRINOID
CRUDE OIL
CRUSTACEA
CRUSTACEAN
CURRENTS
CUTTING
DADE
DECAPOD
DECAPODA
DEFAUNATION
DEMERSAL FISH
DEPOSITION
DEPTH
DETRITUS
DEVELOPMENT
DIAPIR
DISASTER
DISEASE
DISSOLVED OXYGEN
DISTRIBUTION
DIVERSITY
DO
DOLPHIN
DREDGE SPOIL
DREDGING
DRIFT ALGAE
DRIFT BOTTLE
DRIFT CURRENTS
DRIFT MEASUREMENT
DRIFT PATTERN
DRILL CUTTING
DRILLING
DRILLING FLUID

DRILLING IMPACT
DRILLING MUD
DRILLING PLATFORM
DRILLING RIG
DYNAMIC HEIGHT
ECHINODERM
ECHINODERMATA
ECOLOGICAL
ECOLOGY
ECONOMICS
ECOSYSTEM
EDDY
EDDY FORMATION
EDDY INTRUSION
EH
ELECTRICAL CONDUCTIVITY
ENDANGERED SPECIES
ENERGY FLUX
ENGINEERING
EPIBIOTA
EPIFAUNA
EPIFLORA
EROSION
ESTUARY
EUSTATIC CHANGE
EVAPORATION
EVOLUTION
EXPLORATION
FATTY ACID
FAULT
FAUNA
FECUNDITY
FEEDING HABIT
FISH
FISH ATTRACTION
FISH CATCH
FISH EGG
FISH HARVESTING
FISH KILL
FISH LARVAE
FISH STATISTICS
FISH STOCK
FISH TAG
FISH TRAP
FISHERY
FISHERY STATISTICS
FISHING
FISHING EFFORT
FISHING GEAR
FISHING GROUND
FISHING INDUSTRY
FISHING PRESSURE
FLATFISH
FLORA
FOOD CHAIN
FOOD HABIT
FORAMINIFERA
FORECASTING
FORMATION WATER
FOULING
FOULING ORGANISM
FRACTURE PATTERN
GAS
GEOCHEMICAL
GEOCHEMISTRY
GEOGRAPHIC
GEOGRAPHICAL
GEOGRAPHY
GEOLOGIC HISTORY
GEOLOGIC STRUCTURE
GEOLOGICAL
GEOLOGY
GEOMORPHOLOGY
GEOPHYSICAL
GEOSYNCLINE
GEOTHERMAL
GLOBAL RADIATION
GORGONIAN
GRAIN SIZE
GRASSBED
GROUPER
GROWTH
GYRAL
GYRE
HABITAT
HEAT BUDGET
HEAT STORAGE
HEAVY METAL
HEAVY MINERAL
HERBICIDE
HERPETOFAUNA
HISTOLOGY
HISTORIC
HISTORIC GEOLOGY
HOLE
HOLOCENE
HORMONE
HOURGLASS
HURRICANE
HURRICANE DAMAGE
HYDROCARBON
HYDROGRAPHIC
HYDROGRAPHY
HYDROID
HYDROLOGICAL
HYDROLOGY
HYDROZOA
HYPOXIA
ICHTHYOFAUNA
ICHTHYOPLANKTON
INDUSTRY
INFAUNA
INFAUNAL
INFAUNAL COMMUNITY
INFECTIOUS DISEASE
INFRARED IMAGERY
INORGANIC COMPOUND
INTERNAL WAVE
INTERTIDAL
INTRUSION
INVERTEBRATA
INVERTEBRATE
INVERTEBRATE LARVAE
IRON
IRRADIANCE
ISOTOPE RATIO
JUVENILE
KAOLINITE
KING MACKEREL
LAND-SEA BREEZES
LANDINGS (POUNDS)
LANDINGS (VALUE)
LANDSAT
LARVAE
LARVAL
LARVAL DEVELOPMENT
LATITUDE
LATITUDINAL
LEAD
LEE
LENGTH
LIFE CYCLE
LIFE HISTORY
LIGHT
LIGHT ATTENUATION
LIGHT EXTINCTION
LIGHT INTENSITY
LIGNIN
LIPID
LITHOLOGY
LIVE BOTTOM
LOOP CURRENT
MACROALGAE
MACROFAUNA
MACROPHYTE
MAFLA
MAGNESIUM
MAMMAL
MAMMALIA
MANAGEMENT
MANATEE
MANGANESE

MARICULTURE
MARINE
MARSH
MATHEMATICAL MODEL
MEIOFAUNA
MERCURY
METABOLISM
METAL
METEOROLOGICAL
METEOROLOGY
MICROFAUNA
MIGRATION
MIGRATORY PATTERN
MINERAL
MINERAL RESOURCE
MINERALOGY
MODEL
MODIFICATION
MOLLUSC
MOLLUSCA
MOLLUSCAN
MOLLUSK
MONITORING
MONROE
MONTMORILLONITE
MORPHOLOGY
MORTALITY
MUD
MULLET
MULTIVARIATE ANALYSIS
NEARSHORE
NEKTON
NEPHELOID LAYER
NESTING
NEUSTON
NICKEL
NITRATE
NITRITE
NITROGEN
NUMERICAL MODEL
NURSERY AREA
NUTRIENT
OCEANOGRAPHIC
OCEANOGRAPHY
OCS
OCTOCORALLIA
OFFSHORE
OFFSHORE DRILLING
OFFSHORE EXPLORATION
OFFSHORE LEASE
OFFSHORE MINERALS
OFFSHORE PLATFORM
OFFSHORE WATER
OIL
OIL AND GAS
OIL EXPLORATION
OIL INDUSTRY
OIL RESIDUE
OIL SLICK
OIL SPILL
OIL TRANSPORT
OIL WELL
OPERATIONS
ORGANIC CARBON
ORTHOPHOSPHATE
OXYGEN
OYSTER FISHERY
OYSTER
PALEOZOIC
PARASITE
PATHOLOGY
PCB
PELAGIC FISH
PELECYPOD
PELECYPODA
PESTICIDE
PETROLEUM
PET HYDROCARBON
PH
PHENOLOGY
PHOSPHATE
PHOSPHORUS
PHOTODOCUMENTATION
PHOTOGRAPH
PHOTOSYNTHESIS
PHTHALATE
PHYSICAL
PHYSICAL OCEANOGRAPHY
PHYSICAL PROCESS
PHYSICAL PROPERTY
PHYSIOGRAPHY
PHYSIOLOGICAL
PHYSIOLOGY
PHYTOPLANKTON
PIGMENT
PINK SHRIMP
PINNIPED
PIPELINE
PLANKTON
PLANKTON BLOOM
PLATE TECTONICS
PLEISTOCENE
POLLUTANT
POLLUTION
POLLUTION CONTROL
POLLUTION DISTRIBUTION
POLYCHAETA
POLYCHAETE
POPULATION
POPULATION COMPOSITION
POPULATION DENSITY
POPULATION DYNAMICS
PORIFERA
PORIFERAN
PORPOISE
PORT
POTASSIUM
PRECAMBRIAN
PRECIPITATION
PREDATION
PREHISTORIC
PRESSURE
PRIMARY PRODUCTION
PRIMARY PRODUCTIVITY
PRODUCED WATER
PRODUCTION
PRODUCTION WATER
PRODUCTIVITY
PROTEIN
PURSE SEINER
QUATERNARY
RADIOMETER
RATE
RECREATION
RECREATIONAL BEACH
RECREATIONAL FISHERY
RECREATIONAL FISHING
RECRUITMENT
RED TIDE
REDFISH
REDOX
REEF
REEFFISH
REHABILITATION
RELATIVE HUMIDITY
REMOTE SENSING
REPRODUCTION
REPRODUCTIVE
REPTILIA
RESERVE
RESOURCE
RESPIRATION RATE
RICHNESS
RIVER DISCHARGE
ROCK SHRIMP
SALINITY
SARASOTA
SATELLITE
SCLERACTINIA
SCLERACTINIAN
SCYPHOZOA
SEA LEVEL

SEA STATE
SEA TROUT
SEA WHIP
SEABIRD
SEAFOOD
SEAGRASS
SEAGRASS COMMUNITY
SEASAT
SEASON
SEASONAL
SEASONAL VARIATION
SEASONALITY
SEASONALLY
SECCHI DISC
SEDIMENT
SEDIMENT ANALYSIS
SEDIMENT DISTRIBUTION
SEDIMENT FACIES
SEDIMENT GRAIN SIZE
SEDIMENT STRUCTURE
SEDIMENT TEXTURE
SEDIMENT TRANSPORT
SEDIMENTARY DEPOSIT
SEDIMENTATION
SEDIMENTOLOGY
SEISMIC
SEISMIC REFLECTION
SHARK
SHELLFISH
SHIPWRECK
SHRIMP
SHRIMP FISHERY
SIDE SCAN SONAR
SILICATE
SIZE
SNAPPER
SNOOK
SOCIOECONOMIC
SOCIOLOGY
SOURCE
SPANISH MACKEREL
SPAWNING
SPAWNING AREA
SPECIES COMPOSITION
SPECIES DIFFERENTIATION
SPECIES LIST
SPINY LOBSTER
SPONGE
SPORT FISHERY
SPORT FISHING
STANDING CROP
STATISTICAL ANALYSIS
STATISTICS
STONE CRAB
STORM
STORM EVENT
STORM SURGE
STRATIGRAPHY
STRESS
STRESSED
STRUCTURE
SUBMARINE
SUBSTRATE
SULFATE
SURF ZONE
SURFACE CURRENT
SURVEY
SUSPENDED
SWFLA
SYSTEMATIC
TAGGING
TAR
TAXONOMY
TECTONIC
TEMPERATURE
TEMPERATURE ANOMALY
TIDAL
TIDE
TOPOGRAPHIC
TOPOGRAPHY
TOURISM
TOXICOLOGY
TRACE ELEMENT
TRACE METAL
TRANSPORT
TRANSPORTATION
TRAWL FISHERY
TROPICAL STORM
TUMOR
TURBIDITY
TURTLE
UPWELLING
UREA
VANADIUM
VERTEBRATA
VERTEBRATE
VITAMIN
WATER BUDGET
WATER COLUMN
WATER LEVEL
WATER MASS
WATER MOVEMENT
WATER POLLUTION
WATER QUALITY
WATER TEMPERATURE
WAVE
WAVE AMPLITUDE
WAVE ENERGY
WAVE HEIGHT
WAVE LENGTH
WAVE PERIOD
WAVE PRESSURE
WAVE SPEED
WEATHER
WEIGHT
WETLAND
WHALE
WHITE GRUNT
WILDLIFE
WIND
WIND DIRECTION
WIND DRIFT CURRENT
WIND FORCE
WIND SPEED
WIND STRESS
ZINC
ZOOGEOGRAPHY
ZOOLOGY
ZOOPLANKTON

If this information could be obtained, it was appended to the existing article, if one existed. If no article existed, this information, as well as the principal investigator (author), current date (date), brief description of data type and sampling location (citation or title), a more detailed description of the same (abstract), and key words, was to be entered into the Annotated Information System in a manner similar to an article.

Based on the information obtained about a specific data set, the Data and the Program Managers, were to decide the level of effort (no action, ROSCOP submission only. or data submission) to be expended in submitting these data or a record of these data to NODC. A ROSCOP form identifies the study, geographic location, all data types and their status and disposition, and whom to query for more information on the data. Consequently, anyone searching the NODC system will learn that the data exist and will be told whom to contact to obtain the data or further information.

If the data could be obtained in a computer-compatible form (i.e., tape, disk, or cards), the data were to be reformatted (i.e., put into appropriate form with required headers and descriptions) to NODC format. A Data Documentation Form (DDF) was supposed to accompany any data submission. The DDF provides NODC and other users with required ancillary information that increases the utility of the data submitted. The information contained in a DDF includes: originator identification (project title, names, addresses, sampling time and location, and disposition), scientific content (data field, units, sampling methods, analytical methods, and data processing techniques), data format (record types, file organization, and precise data format), record format, and instrument calibration (calibration dates, organization providing calibration services, and calibration schedule).

Prior to submitting any data (accompanied by a DDF), an NESDIS data submission agreement must be prepared. This agreement is a letter drafted by the ESE Data Manager specifying data types (e.g., Eulerian current data). NODC File Types (e.g., File Type 015--Eulerian Currents), a statement agreeing to submit the data in NODC format (as specified by file type), an agreement to submit a test tape, and an agreement to submit a DDF with all data submitted to NODC. This draft letter is sent to NODC where the letter is reviewed, additional conditions are appended, and the letter is signed by the NODC Director and returned to ESE for the Program Manager's signature. This letter establishes an agreement between ESE and NODC for all subsequent data submissions.

Any data not in computer.compatible form were not supposed to be digitized to make them computer compatible. The approach of submitting ROSCOP forms for all located data sets and submitting only data that were computer compatible was considered the most cost-effective approach. It ensured that future investigators would be aware of data available in the study area, but would keep the project costs within the limits of the budget.

7.0 SUMMARY

Numerous relevant publications and a few unpublished limited data sets were located during information collection. As previously discussed, this information was used extensively by the project's Principal Investigators in the synthesis of southwest Florida shelf ecosystems data. In this respect, the information collection task was very successful. Nevertheless, because resources were limited, priorities had to be established. These priorities were (in decreasing order) as follows: (1) assimilation of all available information, (2) synthesis of these data, (3) preparation of a report that provided a comprehensive physical and biological description of southwest Florida shelf ecosystems. (4) development of an annotated information systems, and (5) NODC submissions. In reality Items 1, 2 and 3 all had the same high priority, therefore, these tasks were completed first and required the majority of the project's resources.

As previously discussed, an annotated bibliographic system was completed. Because of hardware and software limitations, the system is somewhat cumbersome to use. Nevertheless, this system does meet the requirements of MMS and is readily usable. Recently, another microcomputer program (TEAM-UP) has been identified that appears to be more powerful than PCINFO. Although it is beyond the scope of this project, MMS may wish to eventually consider converting their annotated bibliography to this system.

The submission of data to NODC was the least successful. This was due, in part, to the limited resources; however, the primary reason was the difficulty in locating the original data sets. Very quickly, information collection personnel found that even the task of locating the researchers was very tim consuming. Frequently, particularly with older data sets, the researcher had moved, retired or passed away. Even if the original researcher could be located, rarely could he or she provide the information necessary to complete a ROSCOP form. In addition, the disposition of the data, its format, and whether the data had been submitted to NODC were unknown. If data were located, usually they existed on log sheets only.

Based on this experience, the project team does not recommend that valuable project resources be expended in such efforts. The benefit-to-cost ratio is low. Project resources ar probably better used in locating information and then using this information in a comprehensive and detailed synthesis. With respect to NODC submissions, it is recommended that all future federally funded oceanographic work require NODC submission of any data collected.

8.0 REFERENCES CITED

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Jones, J.I., R.E. Ring, M.O. Rinkel, and R.E. Smith, (ed.). 1973. A summary of knowledge of the eastern Gulf of Mexico. The State University System of Florida Institute of Oceanography, St. Petersburg, Florida.

Mahadevan, S., J. Sprinkel, D. Heatwole, and D.H. Wooding. 1984. A review and annotated bibliography of benthic studies in the coastal and estuarine areas of Florida. Contr. Mote Marine Lab. V.2, No. 1. 576 p.

Minerals Management Service. 1983. Final regional environmental impact statement: Gulf of Mexico. Minerals Management Service, Metairie, LA. Two volumes.

Science Applications International, Corp. 1986. Gulf of Mexico physical oceanography program final report: Years 1 and 2. Prepared for Minerals Management Service, Metairie, LA (Contract No. 14-12-0001-29158). Two volumes.

Science Applications International, Corp. 1987. Gulf of Mexico physical oceanography program final report: Year 4. Prepared for Minerals Management Service, Metairie, LA (Contract No. 14-12-0001-29158). Two volumes.

The State University System of Florida Institute of Oceanography (SUSIO). 1974. Marine environmental implications of offshore drilling in the eastern Gulf of Mexico. Proceedings of a conference, Jan.-Feb. 1974, St. Petersburg, Florida. 455 p.

Woodward Clyde Consultants and Continental Shelf Associates. 1983. Southwest Florida shelf ecosystems study - year 1. Prepared for Minerals Management Service (Contract No. 14-12-0001-29142). Metairie, Louisiana. Four volumes.

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Woodward Clyde Consultants and Continental Shelf Associates. 1984. Draft southwest Florida shelf ecosystems study - year 2. Prepared for the Minerals Management Service, Metairie, Louisiana (Contract No. 14-12-0001-29144). Seven volumes.

Woodward Clyde Consultants and Continental Shelf Associates, Inc. 1982. Southwest Florida shelf ecosystems Study, marine habitat atlas. Report to Minerals Management Service. Two volumes.

9.0 ANNOTATED BIBLIOGRAPHY

This document represents a hard copy of the contents of the Annotated Information System contained on a microcomputer and associated hard disk system currently installed at the MMS Gulf of Mexico Regional Office located in New Orleans, Louisiana. The purpose of this Annotated Information System (Annotated Bibliography) is to provide MMS with a working tool for cataloging information on the oceanography of the Gulf of Mexico. This system and document are designed primarily for in-house MMS use and not for general distribution to the public. Nevertheless, a limited number of copies of this document are available for distribution through NTIS.

Because this hard copy of the Annotated Bibliography is an in-house document it does not follow, nor is it required to follow, the standard MMS format. Because of the shortcomings inherent in this microcomputer system (primarily the software and the FAMULUS format), text is truncated in all fields. This results in atypical and unhyphenated word splits. This was considered acceptable in light of the system's primarily in-house use.

ACC 866; TYPE; YEAR 1970
ABELE, L.G.;
THE MARINE DECAPOD CRUSTACEA OF THE NORTHEASTERN GULF OF MEXICO

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL. 136 PP

KEYWORD: decapoda, benthic fauna, salinity

ABSTRACT: Between September, 1966 and August, 1968 a survey of decapod crustacea in the Destin-Panama City area was undertaken. Specimens were taken by various methods, returned to the laboratory, measured and preserved key for all specimens taken was constructed. Temperatures and depth data were taken at all stations.

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ACC 2051; TYPE P; YEAR 1974
ABELE, L.G.;
SPECIES DIVERSITY OF DECAPOD CRUSTACEANS IN MARINE HABITATS

BIBL ECOLOGY 55:156-161.

KEYWORD: diversity, decapod, crustacean, salinity, habitat, temperature, tide

ABSTRACT: Species diversities of decapod crustaceans were compared to various abiotic parameters. The numbers of species were found to be little affected by temperature range, salinity range, or tidal exposure. The number of substrates was determined to be the most important factor in determining the number of species present, probably because each species can make differential use of each substrate. Latitude and longitude did not influence the numbers of decapod species within habitats. For ten marine habitats, the numbers of species of decapod crustaceans were as follows: temperate sandy beach (8); tropical sandy beach (7); tropical sand mud beach (16); temperate Spartina marsh (14); tropical Rhizophora mangroves (17,20); temperate man-made jetties (34); tropical Pocillopora coral (55); and tropical rocky intertidal zones (67,8).

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ACC 48; TYPE; YEAR 1982
ADAMS, C.E.; WELLS, J.T.; COLEMAN, J.M.;
SEDIMENT TRANSPORT ON THE CENTRAL LOUISIANA CONTINENTAL SHELF: IMPLICATIONS FOR THE DEVELOPING ATCHAFALAYA RIVER DELTA.

BIBL CONTRIB. MAR. SCI. 25:133-148.

KEYWORD: continental shelf, currents, geology, hydrography, physical process, sediment transport

ABSTRACT: Near-bottom current velocity measurements made at a continental shelf site off the central Louisiana coast over a 4 1/2-month period form the bases for an analysis of sediment transport in the benthic boundary layer. The winter flow field is represented by a tidally dominated regime superimposed on a slow wind-driven westward drift. Mean westerly flow frequently is interrupted by brief periods of intense eastward flow resulting from the passage of continental cyclonic storms. Cross-shelf flow is conspicuous throughout the data record. Bottom shear stress calculated from the quadratic relationship was high enough on eight separate occasions to resuspend the coarsest material (very fine sand) found at the study site. The presence of quantities of suspended sand in the water column during the periods of high bottom stress was indicated also by an analysis of the logarithmic layer near the bottom. Predominance of eastward displacements during the periods when bottom stress is high enough to cause resuspension of the sand-sized sediments together with small quantities of silts and clays, suggests that sand-sized material is moved selectively eastward and offshore, while the finer sediments are moved downcurrent with the mean flow. As Atchafalaya Bay continues to fill and Atchafalaya River sediment is carried out onto the continental shelf, much of the coarser material should remain in the immediate vicinity of the delta, front, and perhaps move to the southeast and thus tend to skew the coarser size components of the advancing delta in that direction.

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ACC 1099; TYPE; YEAR 1972
ADAMS, J.K.;
A COMPARATIVE STUDY OF PHYTOPLANKTON PRIMARY PRODUCTIVITY AND RELATED PARAMETERS IN TWO NORTHWEST FLORIDA ESTUARINE BAYOUS.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 52 PP.

KEYWORD: ammonia, chlorophyll, dissolved oxygen, nitrate, orthophosphate

ABSTRACT: Environmental Parameters were monitored weekly are 3 stations in Mulatto Bayou and Catfish Basin, Pensacola Bay, Florida, in an effort to describe and compare the two systems with respect to their phytoplankton primary productivity. The study was conducted between July, 1971 and June, 1972.

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ACC 347; TYPE; YEAR 1980
AHRENHOLZ, D.W.;
RECRUITMENT AND EXPLOITATION OF GULF MENHADEN, BREVOORTIA PATRONUS.

BIBL FISH. BULL. 79(2):325-335.

KEYWORD: biology, fish tag, resource, fishery, fishery statistics, fishing gear, purse seiner

ABSTRACT: Gulf menhaden, Brevoortia patronus, range along the Gulf of Mexico Coast from Cape Sable, Florida, to Veracruz, Mexico, and are exploited by a purse seine fishery from Alabama to eastern Texas. Rates of exploitation. population movement, and

recruitment into the fishery were estimated from returns of tagged juveniles and adults.

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ACC 2498; TYPE P; YEAR 1973
ALBERTSON, H.D.;
A COMPARISON OF THE UPPER LETHAL TEMPERATURES OF ANIMALS OF FIFTY COMMON SPECIES FROM BISCAYNE BAY.

BIBL MASTER'S THESIS. MIAMI. FL. 78 P. UNIVERSITY OF MIAMI.

KEYWORD: Dade, temperature, invertebrate, salinity, stress

ABSTRACT: Temperature tolerance experiments were performed on 50 macroinvertebrate species from Biscayne Bay, Florida. The upper lethal temperatures of upper littoral organisms were higher than those of lower littoral organisms. At low salinity values the lethal temperature was reduced, though at extremely low salinities (less than 10 o/oo) the values were inconsistent. Optimal temperatures for growth were observed at 12-13 degrees C below the lethal temperatures of 3 species studied for long term temperature effects.

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ACC 193; TYPE; YEAR 1977
ALEXANDER, J.E.; WHITE, T.T.; TURGEON, K.W.; BLIZZARD. A W.;
BASELINE MONITORING STUDIES, MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF, 1975-1976. VOLUME 1. EXECUTIVE SUMMARY.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/ST.78/30. 62 P

KEYWORD: foraminifera, biology, hydrography, oceanography, oil, continental shelf, physical process, pollution, zooplankton, MAFLA

ABSTRACT: Benchmark studies on the Eastern Gulf of Mexico Outer Continental Shelf were conducted seasonally to establish baseline information prior to extensive oil and gas development activity. No crude oil-like hydrocarbons were found in sediments, benthic organisms, zooplankton, suspended particulates nor dissolved phases on the Florida shelf. Moreover the abundance and diversity of organisms suggested that these organisms are living in an essentially pristine and natural ecological state and show no evidence of stress owing to influx of pollutants.

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ACC 194; TYPE; YEAR 1977
ALEXANDER, J.E.; WHITE, T.T.; TURGEON, K.W.; BLIZZARD, A.W.;
BASELINE MONITORING STUDIES, MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF, 1975-1976. VOLUME 2. INTRODUCTION AND METHODS.

BIBL BUREAU OF LAND MANAGEMENT. WASHINGTON, D.C. BLM/ST.78/31. 119 P.

KEYWORD: biology, ecology, geology. hydrocarbon, offshore drilling, oil, continental shelf, pollution, taxonomy, water quality, MAFLA

ABSTRACT: This volume contains the introduction, purpose and objectives of the study, description of the study area, and detailed statements of methodology employed for each parameter measured. The geological parameters included: suspended sediment mineralogy, x-radiography, clay mineralogy, and standard sediment size analysis. Chemical parameters included: selected trace elements and hydrocarbons in sediments; biota; and suspended particulate matter. Principal biological analyses included taxonomy of neuston, zooplankton, macroepifauna, macroinfauna, meiofauna, and microinfauna.

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ACC 195; TYPE ; YEAR 1977
ALEXANDER, J.E.; WHITE. T.T.; TURGEON, K.W.; BLIZZARD, A.W.;
BASELINE MONITORING STUDIES, MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF. 1975-1976. VOLUME 3. RESULTS.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/ST-89/32. 484 P.

KEYWORD: biology, ecology, oceanography, offshore drilling, continental shelf, physical process, salinity, taxonomy, temperature, MAFLA

ABSTRACT: Benchmark studies on the Eastern Gulf of Mexico Outer Continental Shelf were conducted seasonally to establish basline information prior to extensive oil and gas development activity. No crude oil-like hydrocarbons were found in sediments, benthic organisms, zooplankton, suspended particulates nor dissolved phases on the Florida shelf. Moreover the abundance and diversity of organisms suggested that these organisms are living in an essentially pristine and natural ecological state, and show no evidence of stress owing to influx of pollutants. Some evidence of hydrocarbon anomalies were found in samples from the Mississippi-Alabama shelf probably due to drainage from the Mississippi River.

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ACC 196; TYPE; YEAR 1977
ALEXANDER. J.E.; WHITE, T.T.; TURGEON, K.W.; BLIZZARD, A.W.;
BASELINE MONITORING STUDIES, MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF, 1975-1976. VOLUME 4. DISCUSSION.

BIBL BUREAU OF LAND MANAGEMENT. WASHINGTON, D.C. BLM/ST-78/33. 222 P.

KEYWORD: biology, bioassay, benthic community, ecology, offshore drilling, continental shelf, sediment, zooplankton, MAFLA

ABSTRACT: Benchmark studies on the Eastern Gulf of Mexico Outer Continental Shelf were conducted seasonally to establish baseline information prior to extensive oil and gas development activity. No crude oil-like hydrocarbons were found in sediments, benthic organisms, zooplankton, suspended particulates nor dissolved phases on the Florida shelf. Moreover the abundance and diversity of organisms suggested that these organisms are living in an essentially pristine and natural ecological state and show no evidence of stress owing to influx of pollutants. Some evidence of hydrocarbon anomalies were found in samples from the Mississippi-Alabama shelf probably due to drainage from the Mississippi River. A study of tissue pathology revealed only parasites in otherwise normal benthic organisms. Major features affecting the study area were the Mississippi River, the Loop Current and hurricane Eloise. Trace metal (Cd, Cr, Cu, Fe, Ni, Pb and V) concentrations in Eastern Gulf samples were at levels expected for non-polluted areas.

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ACC 197; TYPE; YEAR 1977
ALEXANDER, J.E.; WHITE, T.T.; TURGEON, K.W.; BLIZZARD, A.W.;
BASELINE MONITORING STUDIES, MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF. 1975-1976. VOLUME 6. RIG MONITORING.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/ST-78/35.

KEYWORD: barium, biology, ecology, hydrocarbon, offshore drilling, oil, continental shelf, pollution, sediment, water quality, MAFLA

ABSTRACT: A study was conducted to provide a pre-, during-. and post-operational assessment of selected biological, chemical and geological aspects of the environment in the immediate vicinity of an exploratory drilling located in approximately 36 m of water off Mustang Island, Texas. Although a variety of parameters were measured at 25 stations around the platform, few environmental effects attributable to well-drilling operations were observed. These included: presence of obvious drill cuttings and concomitant changes in sediment texture, increased barium levels in sediments and added stress on the already depaupered foraminiferal populations.

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ACC 2052; TYPE P; YEAR 1978
ALEXANDER, J.E. (ED);
FINAL REPORT ON THE BASELINE ENVIRONMENTAL SURVEY OF THE MAFLA LEASE AREAS

BIBL SUBMITTED TO BUREAU OF LAND MANAGEMENT BY FLORIDA BOARD OF REGENTS OFC. ON BEHALF OF STATE UNIVERSITY SYSTEM OF FLORIDA. 190 P.

KEYWORD: geology, biology, chemical, sediment, metal, hydrocarbon, nutrient, carbon, chlorophyll, invertebrate, baseline study, MAFLA, benthic, physical oceanography

ABSTRACT: An extensive survey was conducted on the MAFLA shelf on the eastern Gulf of Mexico, from Mississippi to Clearwater, Florida. The sampling program was designed and conducted in the areas of geography, biology, and chemical and physical oceanography.

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ACC 66; TYPE; YEAR 1980
ALLEN, K.O.;
IMPACTS OF NAVIGATIONAL DREDGING ON FISH AND WILDLIFE: A LITERATURE REVIEW.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES. WASHINGTON, D.C. FWS/OBS.80/07. 81 PP.

KEYWORD: United States, biology, coastal zone, dredging, fish, water quality, wildlife

ABSTRACT: Literature about the impacts of navigational dredging on fish, other aquatic biota, and wildlife is revised. Also included are types of dredging equipment, characteristics of dredged material, evaluation of dredged material pollution potential, and habitat development and enhancement opportunities arising from dredged material disposal. The review contains a brief discussion of the state of knowledge and refers the reader to pertinent literature for additional information. The discussions about impacts and habitat development are divided into "Coastal Waters" (including disposal in estuarine, continental shelf, and deep ocean waters) and "Rivers." A limited discussion of the "Great Lakes" is included as an Appendix.

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ACC 1201; TYPE P; YEAR 1972
ALLEN, D.M.;
REFERENCES AND SUBJECT INDEX CONCERNING THE CALICO SCALLOP, ARGOPECTEN GIBBUS.

BIBL NOAA INFORMAL REPT. NO. 1, NMFS SOUTHEAST FISH CTR. 31 PP.

KEYWORD: calico scallop, bibliography, biology, mollusc

ABSTRACT: This bibliography lists approximately 200 references pertaining to the biology, fishing methods, process, and marketing of calico scallops, Argopecten gibbus. Citations are listed alphabetically by author and are cross-referenced by 22 subject categories.

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ACC 1202; TYPE P; YEAR 1972
ALLEN, D M. & T. J. COSTELLO;
THE CALICO SCALLOP, ARGOPECTEN GIBBUS

BIBL NOAA TECH. REPT. NMFS SSRF. 656. 19 P

KEYWORD: biology, calico scallop, distribution, spawning, larval development

ABSTRACT: This report summarizes information on the biology and fishery of the calico scallop, Argopecten gibbus. Shell morphology, color, and size range are given. The species is distributed throughout the western North Atlantic with the greatest known abundance off Cape Kennedy, Florida. Environmental factors affecting distribution and growth are discussed, and spawning activity and larval development are described. Although the calico scallop fishery has been slow in developing, it is predicted to increase harvest sizes with improvements in processing machinery.

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ACC 2163; TYPE P; YEAR 1966
ALLEN, D M.; COSTELLO, T.V ;
RELEASES AND RECOVERIES OF MARKED PINK SHRIMP PENAEUS DUORARUM BURKENROAD, IN SOUTH FLORIDA WATERS, 1958-65.

BIBL U.S. DEPARTMENT OF THE INTERIOR, BUR. COMM. FISH, BIOL. LAB., CONTRIB. NO. 210. 79 P.

KEYWORD: pink shrimp, tagging

ABSTRACT: Pink shrimp were captured, stain-marked and released recapture in 17 experiments in the following areas: Biscayne Bay, Flamingo, Peterson Keys, Lower Matecumbe Key, Barnes Sound, Shark River, Hawk Channel, Bottle Key, Pine Island Sound, Tortugas grounds, Sanibel grounds and Indian Key. Data reported included location date of release and recapture of shrimp, number, size, and sex of shrimp, and the stains used.

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ACC 2378; TYPE P; YEAR 1980
ALLEN, D.M.; HUDSON, J.H.; COSTELLO, T.J.;
POSTLARVAL SHRIMP (PENAEUS) IN THE FLORIDA KEYS: SPECIES, SIZE, AND SEASONAL ABUNDANCE.

BIBL BULL. MAR. SCI. 30(1):21-33.

KEYWORD: Monroe, abundance, spawning, recruitment, salinity, wind, currents, temperature, pink shrimp

ABSTRACT: Postlarval shrimp (Penaeus duorarum) were collected from January 1966 to August 1968 at Whale Harbor Channel, Florida Keys. Postlarval abundance was greatest between April and September, but occurred year round. Maximum post larval abundance apparently was related to the seasonal

increase in water temperature on offshore spawning grounds and to the annual sea level rise in Florida Bay The area of origin of post larvae at Whale Harbor Channel and the location of their subsequent recruitment were identified.

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ACC 2554; TYPE P; YEAR 1979
ALLEN, D.M.;
BIOLOGICAL ASPECTS OF THE CALICO SCALLOP, ARGOPECTEN GIBBUS, DETERMINED BY SPAT MONITORING.

BIBL NAUTILUS 93(4):107-119

KEYWORD: calico scallop, growth, temperature

ABSTRACT: Calico scallops (Argopecten gibbus) were collected using artificial spat traps at 5 stations (9.24 m depth) on the Cape Canaveral grounds from March 1970 to October 1971. Larvae were distributed throughout the water column, but were most abundant near the surface. Spat were present year round but were most abundant during spring (March-May). Setting sizes and growth rates are estimated. Numerous invertebrates were also collected in the traps, but calico scallops were generally dominant. Recommendations are made for future spat monitoring.

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ACC 2379; TYPE P; YEAR 1978
ALMASI, M.N.;
ECOLOGY AND COLOR VARIATION OF BENTHIC FORAMINIFERA IN BARNES SOUND, NORTHEAST FLORIDA BAY.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI. FL. 144 P.

KEYWORD: Monroe, sediment, distribution, benthic, foraminifera

ABSTRACT: Sediment and hydrological samples were taken from 30 stations in Barnes Sound, Northeast Florida Bay to study the taxonomy and distribution of benthic foraminifera and the causes of test color differences. Forty-two species of foraminifera were represented in the sediment samples. The existence of a reducing condition in portions of Barnes Sound in the presence of sulphate reducing bacteria influences test color, and the color variation reflects the depositional history of the sediment. Therefore, the condition of the foraminiferal tests can be used to determine the rate of sediment reworking and the depositional environment.

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ACC 2219; TYPE P; YEAR 1971
ALVIS, C.A.;
TROPHIC RELATIONSHIPS BETWEEN SIGNIFICANTLY ASSOCIATED SPECIES OF MACROBENTHOS IN THE SHOAL GRASS HABITAT.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE. FL

KEYWORD: seagrass, food habit, macrofauna, benthic

ABSTRACT: Nineteen hypothetical trophic relationships between significant associated species of macrobenthos in the shoal grass habitat in St. Georges South, Florida, were reasonably justified by gut analyses. Gut analyses on 31 species revealed 64 plant, animal or miscellaneous gut items, most of which were suspected of being components or inhabitants of detritus, the most prevalent gut item. Tests of significance (at 0.05 level) of the difference in gut item proportions between species showed that all species were detritus feeders with a tendency toward either a herbivorous or a carnivorous feeding habitat.

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ACC 2185; TYPE P; YEAR 1970
ANDERSON, W.W.;
CONTRIBUTIONS TO THE LIFE HISTORIES OF SEVERAL PENAEID SHRIMPS (PENAEIDAE) ALONG THE SOUTH ATLANTIC COAST OF THE UNITED STATES.

BIBL U.S. FISH AND WILDLIFE SERVICE SPEC SCI. REPT., FISH NO 605. 24 P.

KEYWORD: life history, fishery, brown shrimp, pink shrimp, distribution, spawning

ABSTRACT: Trends in the shrimp fishery of the south Atlantic coast of the United States were examined as a whole, by states, and by species for the period 1958 to 1967. A steady decline in total shrimp landings was the major finding. Studies on the white shrimp (Penaeus setiferus) in 1931-1935 also yielded data on the brown shrimp (P. aztecus), th sea bob (Xiphopeneus kroyeri) and Trachypeneus constrictus. Data were collected on the pink shrimp (P duorarum) near Cape Kennedy. Florida in 1965-1967. Information is presented on size distribution; ovary development; sex ratios, and spawning seasons of several shrimp species.

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ACC 4290; TYPE P; YEAR 1981
ANDERSON, J.B.; WHEELER, R B.; SCHWARZER, R R.;
SEDIMENTOLOGY AND GEOCHEMISTRY OF RECENT SEDIMENTS (ENVIRONMENTAL EFFECTS OF OFFSHORE OIL PRODUCTION: THE BUCCANEER GAS AND OIL FIELD STUDY).

BIBL MAR. SCI. 14:59-67.

KEYWORD: geochemistry, sediment, oil, pollution

ABSTRACT: Not available.

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ACC 2053; TYPE P; YEAR 1970
ANDRESS, N.E.,
DISTRIBUTION OF FORAMINIFERA IN THE SOUTHEASTERN GULF OF MEXICO.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL

KEYWORD: distribution, foraminifera, sediment

ABSTRACT: An investigation was made of the frequency distribution of Foraminifera in the southeastern region of the Gulf of Mexico. From the 50 bottom sediment samples collected, 4 depth zones, each with its own foraminiferan species, were described. The majority of samples were composed of species found in the Gulf of Mexico. Inconsistencies existed in the effect of bottom sediments on distribution and abundances. Above 90 m faunal trends were correlated only with depth changes.

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ACC 2499; TYPE P; YEAR 1981
ANDREE, S W.;
LOCOMOTORY ACTIVITY PATTERNS AND FOOD ITEMS OF BENTHIC POSTLARVAL SPINY LOBSTERS, PANULIRUS ARGUS.

BIBL MASTER S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL 50 P

KEYWORD: Dade, spiny lobster, season, substrate, behavior

ABSTRACT: Panulirus argus (spiny lobsters) were studied from September 1980 to June 1981 in Biscayne Bay to determine postlarval locomotory activity, foraging, and diet. Activity started just after sunset, was the highest by midnight and ended before sunrise. The diet was diverse, suggesting that postlarvae are opportunistic, generalist feeders. There was little foraging duration variation seasonally.

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ACC 268; TYPE ; YEAR 1974
ANTOINE, J.W.; MARTIN, R.G.; PYLE, T.E.; BRYANT, W.R.;
CONTINENTAL MARGINS OF THE GULF OF MEXICO.

IN: BURKE, C.A., AND DRAKE, C.L., EDS., THE GEOLOGY OF CONTINENTAL MARGINS.

BIBL SPRINGER-VERLAG, NEW YORK, NY. P. 683-693.

KEYWORD: structure, tectonic, continental shelf, geologic history, geology, sedimentology, continental margin

ABSTRACT: The Gulf of Mexico is a small ocean basin whose continental margins are structurally complex and in some cases rather unique. The origin of the Gulf Basin and the subsequent construction of the continental margins are somewhat in contention. The prominent theories contain one of four basic ideas that the Gulf represents: (1) a foundered and oceanized continental mass; (2) a downwarp related to a thermally controlled phase change in the crust and mantle; (3) a gigantic tensioned rift formed in relation to Mesozoic opening of the Atlantic Ocean; and (4) a paleozoic or older ocean basin. The structure of the continental margins of the Gulf of Mexico are the results of tectonic activity related to salt movement, reef growth, current activity, and the massive uppouring of sediments along its northern boundaries. The continental margins of the Gulf are divided into two distinct physiographic and sedimentological provinces, separated physically by two submarine canyons. The DeSoto Canyon in the northeast and th Campeche Canyon in the southwest. These two canyons dividing line between the limestone platforms of the West Florida and Yucatan platforms and the clastic embayments of the northern and western Gulf of Mexico.

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ACC 543; TYPE ;YEAR 1971
ANTOINE, J W.;
STRUCTURE OF THE GULF OF MEXICO.

IN: REZAK. R. AND HENRY. V.L., EDS., CONTRIBUTIONS ON THE GEOGRAPHICAL OCEANOGRAPHY OF THE GULF OF MEXICO.

BIBL TEXAS A&M UNIVERSITY. OCEANOGRAPHIC STUDIES, VOLUME 3:1-34.

KEYWORD: continental shelf, diapir, geologic history, geology, physiography, seismic reflection, structure

ABSTRACT: Shallow seismic reflection profiles demonstrate the unique geologic characteristics of th seven provinces of the Gulf of Mexico. These reflection data, when considered along with other information that has been collected from coring, dredging, magnetic and gravity investigations, make it possible to theorize on the origin of these provinces and their relationship to the total Gulf of Mexico evolution. A short summary of the nature of the individual provinces follows: 1) The Gulf Basin contains a thick sedimentary sequence and is underlain by oceanic crust. 2) Th shelf and slope area of the northeastern Gulf is a carbonate bank which has been subsiding at least since Cretaceous time. The Mesozoic salt deposits of the northern Gulf thin toward

the east in this province. 3) The South Florida Platform is also a carbonate bank which represents an earlier basin centered on the Florida continental shelf. An extensive reef represents the western barrier of the basin during the Lower Cretacaeous. 4) The Yucatan Platform and Campeche Bank may be an extension of the carbonate platform of south Florida. Seismic velocities and age correlations are almost identical. 5) The Isthmian Embayment, which is related to Late Paleozoic orogenies, is similar to the northern Gulf shelf and slope of Texas and Louisiana in terms of the great Tertiary sedimentary thicknesses and the dominance of vertical salt movement in the tectonics of the area. 6) The eastern Mexican shelf and slope is characterized by folds parallel to the present shoreline. These probably represent salt features. 7) The major feature of the northwestern Gulf is the Gulf Coast.

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ACC 2380; TYPE P; YEAR 1975
ANTONIUS, A.;
HEALTH PROBLEMS OF THE FLORIDA CORAL REEFS.

BIBL FLA. SCIENTIST 38(1):21.

KEYWORD: Monroe, coral, reef, mortality

ABSTRACT: Investigation into the health conditions of the coral reefs inside Pennekamp State Park and Hen and Chickens Reef were described in the study. To validate results, data from the barrier reef in British Honduras were used for comparison. A method has been developed which used the percentages of live versus dead coral surface area to quantitatively describe the reef's health. The main state park reefs appear to b only insignificantly inferior in health to the barrier reef; dead corals in both cases remain below 10 percent. The Hen and Chickens Reef was found to be devastated to over 80%. Other reefs outside the state park, not yet surveyed quantitatively, are believed to show various degrees of deterioration.

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ACC 2335; TYPE P; YEAR 1976
APPLIED BIOLOGY, INC.;
ECOLOGICAL PARAMETERS MONITORING AT THE FORT MYERS PLANT

BIBL FLORIDA POWER AND LIGHT CO., MIAMI, FL. REPT.

KEYWORD: Lee, biomass, diversity, invertebrate

ABSTRACT: Results of benthic sampling in the vicinity of the Florida Power and Light Co. Fort Myers Plant in 1974 and 1975 are reported. A species list and values of density, biomass, diversity, and equitability are provided.

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ACC 750; TYPE ; YEAR 1958
ARNOLD. E.L.;
GULF OF MEXICO PLANKTON INVESTIGATIONS, 1951-53.

BIBL U.S. FISH AND WILDLIFE SERVICE, SPEC. SCI. REP. FISH. NO. 269.

KEYWORD: Gulf of Mexico, biology, fish eggs, fish larvae, plankton, taxonomy, zooplankton

ABSTRACT: This report presents the results of a group of cruises into the Gulf of Mexico during 1951-53. The cruises were taken to characterize the plankton of the Gulf with special emphasis on fish larvae and eggs. A number of transects were taken in various areas of the Gulf along the Continental Shelf and offshore. Two types of sampling gear were.used and the efficiencies of each are discussed.

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ACC 708; TYPE ; YEAR 1958
ARNOLD, E.L.,
GULF OF MEXICO PLANKTON INVESTIGATIONS, 1951-1953.

BIBL U.S. FISH AND WILDLIFE SERVICE, SPEC. SCI. REP. FISH. NO. 269.

KEYWORD: biology, fish egg, fish larvae, plankton, zooplankton, taxonomy

ABSTRACT: This report presents the results of a group of cruises into the Gulf of Mexico during 1951-53. The cruises were taken to characterize the plankton of the Gulf with special emphasis on fish larvae and eggs. A number of transects were taken in various areas of the Gulf along the Continental Shelf and offshore. Two types of sampling gear were used and the efficiencies of each are discussed.

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ACC 847; TYPE ; YEAR 1974
ARMSTRONG, D.W.;
SOME DYNAMICS OF CARBON, NITROGEN AND PHOSPHORUS IN THE MARINE SHELF ENVIRONMENT OF THE MISSISSIPPI FAN.

BIBL MASTER'S THESIS. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 79 PP.

KEYWORD: alkalinity, ammonia, carbon, sulfate, nitrogen, inorganic compound, phosphate, phosphorus, chlorine compounds

ABSTRACT: Twenty-five gravity cores were collected from the Mississippi Fan and Mississippi River between July, 1973 and June, 1974 during cruises 73-1-2 of the R/V Longhorn and 74-G-9 of th R/V Gyre. Samples were analyzed for organic carbon, total nitrogen

and organic and inorganic phosphorus. Interstitial water was analyzed for chloride, ammonia, phosphate, sulfate and alkalinity.

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ACC 1078; TYPE ; YEAR 1980
ARNTZ, W.E.;
PREDATION BY DEMERSAL FISH AND ITS IMPACT ON THE DYNAMICS OF MACROBENTHOS.

BIBL P. 121-149. IN: TENORE. K.R. AND COULL. B.C. (EDS.). MARINE BENTHIC DYNAMICS. UNIVERSITY OF SOUTH CAROLINA PRESS, COLUMBIA, S.C.

KEYWORD: benthic community, benthic fauna, biology, ecology, community structure

ABSTRACT: Since 1968, investigations have been carried out in the western Baltic on interrelationships of the dynamics of macrobenthos and demersal fish. These studies have involved: 1) investigations of over 5,000 stomach gut analyses to quantify the food (including seasonal changes) of cod, whiting, dab, plaice, flounder and some less important fish species; 2) survey of infaunal macrobenthos over eight years (1968-1971 and 1975-978); and 3) a three-year experimental study on dynamics and production of macrobenthos at the "Benthosgarten" station. This paper also includes fish data published annually by the International Council for the Exploration of the Sea and from other studies carried out in Kiel Bay. The interaction of macrobenthos and demersal fish is discussed, particularly regarding the effects of selective predation. Differences in predation intensity from year to year, resulting in reduced population levels of macrobenthos, were observed, but the long-term dynamics of the more important benthic food species in the western Baltic were seemingly not influenced by the year-class strength of demersal fish. Likewise, the year-class strength of benthos in different years did not affect the size and production of the demersal fish stocks in the area. A number of possible reasons for this apparent lack of correlation are discussed.

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ACC 348; TYPE ; YEAR 1973;
ARTHUR D. LITTLE, INC.;
GULF COAST DEEP WATER PORT FACILITIES STUDY, ENVIRONMENTAL ASSESSMENT

BIBL U.S. ARMY CORPS OF ENGINEERS, VICKSBURG DISTRICT, VICKSBURG, MS. 87 PP.

KEYWORD: biology, oceanography, socioeconomic

ABSTRACT: Not available.

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ACC 2054; TYPE P; YEAR 1981
ATLAS, E.;
SYNTHETIC ORGANICS IN THE GULF OF MEXICO - A REVIEW.

IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO, KEY BISCAYNE, FL. 30 SEPT.-5 OCT., 1979. D.K. ATWOOD (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LAB., MIAMI, FL. VOL. II C: P. 131-165.

KEYWORD: hydrocarbon, biota, sediment, water column

ABSTRACT: This summary paper reviews the state of knowledge on two classes of compounds (halogenated hydrocarbons and the phthalate ester plasticizers) in the Gulf of Mexico. Concentrations of these trace organics in th Gulf of Mexico are summarized for the biota, water, and sediments. Analytical methodology and inputs, removal mechanisms, and transformation of the synthetic organics in the Gulf of Mexico are also reviewed. Gaps in existing knowledge are identified and suggestions for priority areas of research are made.

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ACC 10; TYPE ; YEAR 1981
ATWOOD, D.K.;
PROCEEDINGS OF A SYMPOSIUM ON ENVIRONMENTAL RESEARCH NEEDS IN THE GULF OF MEXICO (GOMEX). SEPTEMBER 30 - OCTOBER 5, 1979. KEY BISCAYNE, FL.

BIBL NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA/ERL). ATLANTIC OCEANOGRAPHIC AND METEROLOGICAL LABORATORIES. MIAMI, FL. 4 VOLS.

KEYWORD: biology, chemistry, ecology, socioeconomic, fishery, geology, meteorology, oceanography, wetland

ABSTRACT: Proceedings include results and discussions recorded at a meeting of a group of U.S. and Mexican economists, marine scientists, and environmental managers regarding needs for marine-related environmental research in the Gulf of Mexico during the next decade. The workshop was divided into three panel groups entitled: natural setting, anthropogenic input and impacts, and environmental management and public concern. Reports from each of these panels are included in these proceedings as are the panel participants.

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ACC 1203; TYPE P; YEAR 1970
AVENT, R.M., JR.;
THE EFFECT OF HYDROSTATIC PRESSURE ON SELECTED INTERTIDAL AND SHALLOW WATER ANIMALS.

BIBL FLA. STATE UNIV. M.S. THESIS.

KEYWORD:

ABSTRACT: The behavioral changes of 143 intertidal and shallow marine invertebrates (representing 38 species and 7 phyla) subjected to increases in hydrostatic pressure (up to 3200 psi) were observed. The first response, and the pressure at which it occurred, were recorded to determine the relative sensitivities of each species. The taxonomic position of the organism and the biotape from which it was collected were related to the pressure sensitivities of each species.

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ACC 2186; TYPE P; YEAR 1977
AVENT, R.M.; KING, M.E.; GORE, R.H.;
TOPOGRAPHIC AND FAUNAL STUDIES OF SHELF-EDGE PROMINENCES OFF THE CENTRAL EASTERN FLORIDA COAST.

BIBL INT. REVUE GES. HYDROBIOL. 62(2):185-208.

KEYWORD: topographic, invertebrate, fish, population, coral

ABSTRACT: Eighty topographic profiles made off the central Atlantic coast of Florida from November 1973 to September 1974 revealed the presence of a band of pinnacles, benches, mounds, and troughs along the shelf edge from Fort Pierce to Cape Canaveral and a massive mount off St. Lucie Inlet. Dredgings and submersible observations at 2 areas of extreme vertical relief demonstrated the presence of diverse invertebrate and fish populations associated with exposed limestone bedrock and the hard coral, Oculina varicosa.

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ACC 4178; TYPE P; YEAR 1985
AYERS, R.C.; SAUER, T.C.; ANDERSON, P.W.;
THE GENERIC MUD CONCEPT FOR NPDES PERMITTING OF OFFSHORE DRILLING DISCHARGES.

BIBL J. PETROL. TECH. 37(3):475-480.

KEYWORD: mud, drilling, oil and gas, offshore

ABSTRACT: Not available.

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ACC 4201; TYPE P; YEAR 1982
AYERS, R.C., JR.; MEEK, R.P.; SAUER, T.C., JR.; STUEBNER, D.O.;
AN ENVIRONMENTAL STUDY TO ASSESS THE EFFECT OF DRILLING FLUIDS ON WATER QUALITY PARAMETERS DURING HIGH-RATE HIGH-VOLUME DISCHARGES TO THE OCEAN.

BIBL J. PET. TECHNOL. 34(1):165-173.

KEYWORD: drilling mud, drilling fluid, offshore drilling, pollution, water quality

ABSTRACT: Not available.

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ACC 2381; TYPE P; YEAR 1976
BACH, C.; HAZLETT, B.; RITTSCHOF, D.;
EFFECTS OF INTERSPECIFIC COMPETITION ON FITNESS OF THE HERMIT CRAB CLIBANARIUS TRICOLOR.

BIBL ECOLOGY 57(3) 579-586.

KEYWORD: Monroe, crab, stress, invertebrate

ABSTRACT: The effects of interspecific competition on the fitness of Clibanarius tricolor was studied. C. tricolor was found to overlap strongly in shell utilization with other common species of intertidal hermit crabs found in the Florida Keys. Laboratory observations indicated that C. tricolor can dominate C. antillensis in shell fights, while Calcinus tibicen can dominate C. tricolor. In micro areas of sympatry with C. antillensis, C. tricolor's shell fit was found to be better. Egg production of C. tricolor was the same in areas with or without C. antillensis. Sympatry with Calcinus tribicen resulted in a poorer shell fit, a smaller mean size of crab, and a disruption of the relationship between clutch size and crab size. The study suggests that the ecological separation which characterizes these species over most of their ranges was an evolutionary response, in part, to the effects of interspecific shell competition.

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ACC 2500; TYPE P; YEAR 1970
BADER, R.G.; ROSESSLER, M.A.; THORHAUG, A.;
THERMAL POLLUTION OF A TROPICAL MARINE ESTUARY.

BIBL IN: FAO TECH. CONF. ON MAR. POLL. & ITS EFFECTS ON LIVING RESOURCES & FISHING. ROME, 1970. P. 425-428.

KEYWORD: Dade, pollution, mortality, macroalgae, seagrass, fish, invertebrate, sediment, temperature, salinity, DO, metal

ABSTRACT: The results of field and laboratory studies on thermal pollution of the Biscayne Bay tropical marine estuary demonstrated that sustained temperatures above 33 degrees C can cause excessive mortalities in some macroalgae and seagrasses. This, in turn, could eliminate the major food source and shelter for a great number of herbivores and detritus feeders, including the juvenile stages of some commercial species. In addition to immediate losses of fish and invertebrate species, the lack of sufficient bottom vegetation could result in increased erosion of the sediment. This process could have a detrimental effect on productivity, which would further contribute to the deterioration of estuarine areas. The upper thermal limits of selected species of estuarine flora and fauna are discussed.

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ACC 488; TYPE ; YEAR 1978
BAGUR. J.D.;
BARRIER ISLANDS OF THE ATLANTIC AND GULF COASTS OF THE UNITED STATES: AN ANNOTATED BIBLIOGRAPHY.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES. WASHINGTON, D.C. FWS/OBS.77/56. 215 P.

KEYWORD: barrier island, bibliography, ecosystem, fishery, physical property, resource, wildlife

ABSTRACT: Not available.

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ACC 801; TYPE ; YEAR 1982
BAIN, M.B.; BAIN, J.L.;
HABITAT SUITABILITY INDEX MODELS, COASTAL STOCKS OF STRIPED BASS.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWD-OBS-10.1. 29 P.

KEYWORD: biology, ecology, fish, fishery, resource, habitat, life history, model, management

ABSTRACT: Not available.

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ACC 898; TYPE ; YEAR 1975
BAKER. R.O.;
STUDIES OF MYXOSPORIDA (PROTOZOA) IN THE MULLET MUGIL CEPHALUS.

BIBL MASTER' S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 74 PP

KEYWORD: parasite, pelagic fish, mullet, pathology

ABSTRACT: Myxosporida (protozoa) parasites of Mugil cephalus, mullet, were examined on 793 fish collected in Mulatto Bayou and Escambia Bay, Florida between January, 1970 and June, 1971. Parasites were examined on eyes, scales, gills and internal organs.

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ACC 550; TYPE ; YEAR 1970
BALLARD, R.D.; UCHUPI, E.;
MORPHOLOGY AND QUATERNARY HISTORY OF THE CONTINENTAL SHELF OF THE GULF COAST OF THE UNITED STATES.

BIBL BULL. MAR. SCI. 20(3):547-559.

KEYWORD: Pleistocene, Quaternary, coastal water, continental shelf, geologic history, geology, physiography, sedimentation

ABSTRACT: Sea-level fluctuations of the Quaternary have greatly influenced the surface morphology of the continental shelf off the Gulf Coast of the U.S. Two prominent shorelines, at 60 and 160 meter depths, and other features found on the gulf shelf can be related to the relatively recent events of the Quaternary, particularly those of the Holocene transgression. Landward of the 40 meter contour, the slow rise of the sea surface and modern sedimentation have produced a complex mixture of topographic expressions Diapiric structures, which are abundant from De Soto Canyon westward, appear to be of secondary importance in contributing to the shelf's surface relief.

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ACC 2543; TYPE P; YEAR 1979
BANE, L.;
A SEASONAL STUDY OF SESSILE MARINE FOULING ORGANISMS IN NORTHERN LAKE WORTH, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA ATLANTIC UNIVERSITY, BOCA RATON, FL. 68 P.

KEYWORD: seasonal, fouling, recruitment, development, community, salinity, temperature, dissolved oxygen, growth

ABSTRACT: Seasonal recruitment patterns and development of a fouling community on gelcoat-covered fiberglass plates were investigated at 3 sites in northern Lake Worth, Florida, from September 1976 to September 1977. Species abundance was higher at 2 stations which had relatively stable levels of salinity, temperature, and dissolved oxygen than at the third station, which was subject to more variable abiotic conditions. All stations exhibited maximum settlement and growth in the spring and early summer. Three species were found to settle only on plates that had been previously colonized.

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ACC 2055; TYPE P; YEAR 1981
BARNARD, R.W. & FROELICH, P.N., JR.;
NUTRIENT GEOCHEMISTRY OF THE GULF OF MEXICO. IN: PROC. OF A SYMP. ON ENVIR. RESEARCH NEEDS IN THE GULF OF MEXICO. KEY BISCAYNE, FLA. 30 SEPT -5 OCT 1979. D. K. ATWOOD (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LABORATORIES, MIAMI, FLA. VOL IIA. P. 127-146.

KEYWORD: geochemistry, water mass, sediment, nutrient

ABSTRACT: This summary paper reviews the state of knowledge on the elements known to be involved in biogeochemical pathways. Information on the water masses and sediments of the Gulf of Mexico as they

relate to these elements are reviewed. The sparsity of information on sedimentary and interstitial water nutrient geochemistry is noted and suggestions for future research are made.

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ACC 4000; TYPE P; YEAR 1972
BARLOGA, F.R.; SMITH, R.E., EDS.;
CHARACTERIZATION AND DOCUMENTATION REPORT ON DISSIMILAR HYDROBIOLOGICAL ZONES OF THE EASTERN GULF OF MEXICO.

BIBL THE STATE UNIVERSITY OF FLORIDA INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: biology, geology, chemistry, physical, oceanography, baseline study, continental shelf

ABSTRACT: As part of an environmental assessment of the Gulf of Mexico conducted in connection with proposed deep-water port development, information concerning the oceanography of the eastern Gulf of Mexico was compiled by researchers from the State University System of Florida. Topics included physical and chemical oceanography, geology, marine biology, and tourism.

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ACC 4160; TYPE P; YEAR 1985
BARRY, A.; VITTOR & ASSOCIATES, INC.;
TUSCALOOSA TREND REGIONAL DATA SEARCH AND SYNTHESIS STUDY (VOL. I--SYNTHESIS REPORT AND VOL. II--SUPPLEMENTAL REPORTS.

BIBL FINAL REPORT SUBMITTED TO MINERALS MANAGEMENT SERVICE, METAIRIE, LA. CONTRACT #14-12-0001-30048. 877 PP.

KEYWORD: bibliography, physical, chemical, biological, oceanography, current, circulation, model, socioeconomic, fish, invertebrate, macroalgae, phytoplankton, zooplankton

ABSTRACT: Information on the natural resources of the Tuscaloosa Trend OCS (southeastern Louisiana, Mississippi, and Alabama), from coastal marshes to a depth of 200 m, have been collected, annotated, and synthesized. Over 1200 published and unpublished data sources were reviewed and citations computerized in the NEDRES format to provide MMS a means for retrieving, updating, and expanding the data base. A conceptual ecosystem model of the Tuscaloosa Trend shelf has been developed that represents the OCS region as an integrated system of physical and biogeochemical components, stressing functional relationships and interactions with adjoining ecosystems. Synthesis report chapters characterize the ecosystem model, physiography and geology, physical and chemical oceanography, ecological resources, and socioeconomic features of the region. Water mass circulation in both coastal and shelf waters is strongly affected by open Gulf circulation (e.g., Loop Current), diurnal tides, sustained winds, and freshwater discharge from major river systems (e.g., Mississippi and Mobile Rivers). Net longshore littoral drift is generally to the west along the Mississippi-Alabama barrier islands and to the north along Chandeleur-Breton Islands as determined from island migration patterns. Transport of nutrients to the inner shelf occurs during periods of high river discharges, while outer shelf areas are provided with nutrients primarily during intrusions of oceanic waters. Pollutants are generally restricted to areas of localized inputs (i.e., discharges from coastal industrial and municipal centers). Demersal fishes and benthic community patterns.

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ACC 2382; TYPE P; YEAR 1973
BASAN, P.B.;
ASPECTS OF SEDIMENTATION AND DEVELOPMENT OF A CARBONATE BANK IN THE BARRACUDA KEYS, SOUTH FLORIDA.

BIBL J. SEDIMENT. PETROL. 43(1):42-53.

KEYWORD: Monroe, carbonate, algae, sediment

ABSTRACT: Factors influencing the accumulation of carbonate sediments into a bank were studied. Of factors influencing growth and present configuration. The development of this bank was summarized as follows: preferential accumulation of fine sediment in sink holes, forming coalescing silty banks; contemporaneous colonization of these banks by calcareous algae and marine grasses; entrapment and accumulation of coarse sediment by these marine plants forming a single contiguous sand bank; and continued growth by accretion of sediment over avalanche slopes. It was determined that the bank is probably extending itself into the adjoining lagoon by a process of differential growth. This process is dependent upon stabilization of one part of the bank, while growth continues in another.

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ACC 436; TYPE ; YEAR 1975
BASS, R.J.; AVAULT, A.W.;
FOOD HABITS, LENGTH, WEIGHT RELATIONSHIP, CONDITION FACTOR, AND GROWTH OF JUVENILE RED DRUM SCIAENOPS OCELLATUS IN LOUISIANA.

BIBL TRANS. AM. FISH. SOC. 104(1):35-45.

KEYWORD: biology, coastal water, ecology, feeding habits, fish, growth, length, weight

ABSTRACT: Not available.

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ACC 2383; TYPE P; YEAR 1970
BAUER, J.C.;
CONTRIBUTIONS TO THE BIOLOGY OF THE SEA URCHIN DIADEMA ANTILLARUM.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL. 62 P.

KEYWORD: Monroe, biology, growth, spawning, temperature, tide, light, echinodermata

ABSTRACT: Diadema antillarum was studied in 3 habitats off Southern Florida between March 1968 and February 1969. Test growth rates were investigated. comparative studies showed that tropical species grew fastest, with the exception of heart urchins. Aggregation increased during the spawning period and was influenced by tidal fluctuations. Gametogenesis and spawning were associated with dropping temperatures. A synchronized spawning pattern from Key West to Bermuda is suggested.

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ACC 2384; TYPE P; YEAR 1976
BAUER, J.C;
GROWTH, AGGREGATION AND MATURATION IN THE ECHINOID, DIADEMA ANTILLARUM.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL.

KEYWORD: Monroe, growth, reproduction, temperature, spawning, echinodermata

ABSTRACT: A study of growth. aggregation. and reproduction of Diadema antillarum was conducted at 3 sites, representing 3 habitats located at Boca Raton, Indian Key. and Key West. Florida. The growth rate of young D. antillarum at Boca Raton was found to be 5 times greater than that of adults over the same 6 month period in 1968. Gametogenesis at Indian Key was initiated in the fall of 1968 with decreasing water temperature. Major spawning occurred during a period of low temperature in November 1968 at both Indian Key and Key West. Spawning time was correlated with lunar phases. Aggregation of D. antillarum was influenced by reproductive state and tidal fluctuation.

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ACC 4316; TYPE P; YEAR 1980;
BAUER, J.C.;
OBSERVATIONS ON GEOGRAPHICAL VARIATIONS IN POPULATION DENSITY OF THE ECHINOID DIADEMA ANTILLARUM WITHIN THE WESTERN NORTH ATLANTIC.

BIBL BULL. MAR. SCI. 39\0(2):509-515.

KEYWORD: echinodermata, habitat, growth, temperature, spawning, distribution

ABSTRACT: Animal density counts and gonadal exams were conducted within populations of Diadema from the following areas: Curacao, Netherlands Antilles; Barbados, West Indies; U.S. Virgin Islands; British Virgin Islands; Puerto Rico; Grand Cayman. British West Indies; Nassau, Bahamas; Florida Keys,. and Bermuda. To determine mean population densities, all sizes of Diadema were counted within successive m super(2)-quadrats along transects which were randomly chosen and varied in length according to the site involved. Only daytime counts were made because of the mobility of the Diadema at night when exposed to light. The population densities reported are qualitative observations.

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ACC 2056; TYPE P; YEAR 1969
BAULT, E.I.;
A STUDY OF THE DISTRIBUTION AND THE ZOOGEOGRAPHY OF THE POLYCHAETOUS ANNELIDS OF THE CONTINENTAL SHELF IN THE NORTHEASTERN GULF OF MEXICO.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL.

KEYWORD: distribution, zoogeography, polychaete

ABSTRACT: Polychaetes were obtained from bottom samples taken during November 1967 along the northeastern Gulf continental shelf to a depth of 183 m. Of the 4 major groups, the first consisted of species occurring on the Atlantic coast of the U.S. The second group were those endemic to the Gulf of Mexico. The third group was composed of polychaetes found in the West Indies, Bermuda, and Florida Keys areas. The fourth group was circumtropical circummundane. The large number of tropical and subtropical species was the most outstanding feature of this study of polychaetes.

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ACC 605; TYPE ; YEAR 1980
BEA, R.G ; AUDIBERT, J.M.E.;
OFFSHORE PLATFORMS AND PIPELINES IN MISSISSIPPI RIVER DELTA.

BIBL J. GEOTECH. ENG. DIV., AM. SOC. CIV. ENG. 106:853-869 (PAPER 15645).

KEYWORD: drilling platforms, geology, physical process, pipeline, sediment transport

ABSTRACT: Not available.

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ACC 4246; TYPE P; YEAR 1983
BEA, R.G.;
HURRICANE WAVE HEIGHT AND FORCES-4: DESIGN WAVE FORCES ESCALATE TO "100-YEAR" CONDITIONS TO CONSIDER STORMS, DRAG, FOULING.

BIBL OIL GAS J. 81(43):95-99.

KEYWORD: wave, storm, fouling, currents, hurricane, drilling platform, physical process

ABSTRACT: In the previous articles, the attenuation of wave heights across the Gulf's continental shelf was examined. More wave attenuation was found than was previously recognized. This article integrates these findings with other considerations regarding hurricane wave and current forces the results being the development of a design wave force level similar to the API reference level for shallow water platforms in the Gulf of Mexico. A chronology of design basis wave forces.

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ACC 4247; TYPE P; YEAR 1983
BEA, R.G.;
HURRICANE WAVE HEIGHT AND FORCES-3: WAVE-HEIGHT ATTENUATION MODELED BY COMPUTER PROGRAM FOR SHALLOW WATER IN GULF.

BIBL OIL GAS J. 81(41):114-120.

KEYWORD: wave, model, hurricane, physical process

ABSTRACT: This third article in a series of five describes a computer program which models shallow-water wave-height attenuation, i.e., various dissipative physical processes previously described. The wave-attenuation model calibration is then discussed the result being a statistical distribution of shallow-water wave conditions for three subregions of the western Gulf of Mexico Continental Shelf.

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ACC 4271; TYPE P; YEAR 1983
BEA, R.G.; LAI, N.W.; MOORE, G.H.; NIEDORODA, A.W.;
GULF OF MEXICO SHALLOW-WATER WAVE HEIGHTS AND FORCES.

BIBL OFFSHORE TECHNOL. CONF. (UNITED STATES) 3:49-68.

KEYWORD: wave, storm

ABSTRACT: The purpose of this study was to develop a rational procedure for establishing environmental design conditions for platforms in relatively shallow water in the Gulf of Mexico. This paper discusses two parts of this study. The first part is that of developing and calibrating a procedure for determining the amount of storm wave height reduction due to dissipation of wave energy through fluid shear stresses acting on the seafloor of the Continental Shelves. The second part is that of developing and justifying a wave force parameterization procedure to quantify wave force levels on typical jacket structures in the Gulf of Mexico.

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ACC 587; TYPE ; YEAR 1982
BEARD, J.H.; SANGREE, J.B.; SMITH, L.A.;
QUATERNARY CHRONOLOGY, PALEOCLIMATE, DEPOSITIONAL SEQUENCES, AND EUSTATIC CYCLES.

BIBL AM. ASSOC. PET. GEOL. BULL. 66(2):158-169.

KEYWORD: Quaternary, chronology, continental shelf, continental slope, geology, seismic reflection, eustatic change, Pleistocene, sedimentology, geologic structure

ABSTRACT: Pleistocene alternations of ocean volumes, expressed as relative changes in sea level, are symptomatic of the accumulation and melting of continental ice sheets and resulted in lowstands of sea level during glacial periods and highstands during interglacial periods. A lowstand-highstand couplet constitutes a eustatic cycle. Eight cycles that occurred during the last 2.5 to 3.0 m.y. are recognized in the Gulf Coast region. These cycles are identified by multiple criteria, including paleontologic, sedimentologic, and seismic evidence. Eustatic cycle concepts can be used in seismic stratigraphy to identify seismic (depositional) sequences. Such seismic- sequence analyses are based on identification of discrete stratigraphic units within relatively conformable intervals of strata by using reflection patterns on the seismogram. For example, glacial periods may exhibit chaotic bedding surfaces on the seismogram, whereas interglacial periods may display parallel bedding surfaces. Seismic sequence analyses provide a sound basis for applying the global system of geochronology to seismic data for the improvement of stratigraphic and structural interpretations. Moreover, seismic sequence analyses in new exploration areas allow

for reliable predictions of geologic age ahead of drilling and facilitate preliminary tectonostratigraphic reconstructions.

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ACC 2385; TYPE P; YEAR 1975
BEARDSLEY, G.L.; COSTELLO, T.J.; DAVIS, G.E.; JONES, A.C.; SIMMONS, D.C.;
THE FLORIDA SPINY LOBSTER FISHERY: A WHITE PAPER.

BIBL FLA. SCI. 38(3):144-149.

KEYWORD: Monroe, spiny lobster, fishery, management, fishery statistics

ABSTRACT: Management practices were suggested for Florida spiny lobster fishery to combat declining catch rates, resulting from increasing fishing pressure by commercial and recreational fishermen. A two-phase management program was proposed: 1) allocate the resource effectively between commercial and recreational components, institute uniform interstate regulations to protect the resource, and increase the collection of fishery statistics for both commercial and recreational harvests; and 2) establish a management scheme based on additional research to obtain the optimum sustainable yield.

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ACC 1204; TYPE P; YEAR 1976
BEAUMARIAGE, D.S.; LITTLE, E.J.;
STATUS REPORT OF FLORIDA'S RESEARCH ON SPINY LOBSTER BIOLOGY.

BIBL PROC. GULF CARIBB. FISH. INST. 28TH ANNU. SESS. OCT. 1975: 102-107.

KEYWORD: spiny lobster, larval, recruitment, behavior, migration, growth, populations, population dynamics, commercial fishery, crustacea

ABSTRACT: Research on the population dynamics of Florida's spiny lobster was reviewed to summarize existing knowledge for use in evaluating management concepts. Development of larval lobsters and their method of recruitment have been studied intensively although larval stages cannot yet be identified to species. Recent use of SCUBA for in situ observations has increased knowledge of lobster behavior and migration. Understanding of spiny lobster population dynamics has been hindered by the lack of information on growth and the relationship between age and lobster size. The effects of fishing pressure on the structure of juvenile and adult populations is assessed. Increased investigation of lobster stocks in deeper water and areas peripheral to the main fishing grounds may provide information concerning lobster growth, migration, recruitment, interactions with inshore populations, and the potential as alternative fisheries.

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ACC 213; TYPE ; YEAR 1982
BECCASIO, A.D.; FOTHERINGHAM, N.; REDFIELD, A.E.; FREW, R.L. ET AL.
GULF COAST ECOLOGICAL INVENTORY. USER'S GUIDE AND INFORMATION BASE.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES. WASHINGTON, D.C. FWS/OBS.82/55. 191 PP.

KEYWORD: barrier island, coastal resource, coastal water, coastal zone, ecology, ecosystem, exploration, industry

ABSTRACT: This study provides an inventory of important ecological resources along the Gulf Coast, an area of some 475,000 square kilometers (183,400 square miles). This inventory is intended to provide government and industry decisionmakers with valuable ecological information which will assist in the regional siting of oil and gas processing and manufacturing facilities and their respective transportation systems. The preparation of this ecological inventory involved four major tasks: the collection, review, and analysis of available data on coastal fish and wildlife species and their habitats and special land use areas; the synthesis and compilation of these data into a format which is compatible with the requirements of 1:250,000-scale mapping; the preparation of a series of 22 resource inventory graphics for the Gulf Coast; and the preparation of a report narrative keyed to the inventory graphics. The report is organized in accordance with the hierarchical classification scheme for coastal ecosystems devised by Terrell (1979). Ecological resources are summarized by their appropriate geographic zone, and descriptions and locations of species with special status and aquatic and terrestrial species of high commercial, recreational, and aesthetic value are included. The designation of more than 270 special land use areas along the Gulf Coast is also provided.

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ACC 4211; TYPE P; YEAR 1979
BEDINGER, C.A., JR.;
ECOLOGICAL INVESTIGATIONS OF PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO--PRELIMINARY FINDINGS.

BIBL IN: PROC. 11TH ANNU. OFFSHORE TECH. CONF. 4:2149-2161. OFFSHORE TECHNOLOGY CONFERENCE, HOUSTON, TX. 30 APRIL 1979.

KEYWORD: artificial reef, hydrography, hydrocarbon, sediment, trace metal, benthic, fouling, fish, pollution

ABSTRACT: Southwest Research Institute is presently managing a relatively large program in offshore ecology for the Bureau of Land Management. Project objectives are to assess the long term cumulative effects of production platform operation on the Outer Continental Shelf (OCS) environment, and further define their "artificial reef" effect. These results are then to be used in helping formulate future research on the OCS, indicate monitoring techniques and to review present "benchmark" studies. The study area covers a broad expanse of the Louisiana "oilpatch" from the Mississippi delta, west 200 miles and offshore 100 miles. Twenty-four stations have been visited during late spring and late summer, 1978, and winter, 1979, with four platforms sampled as primary sites during each season, 16 as secondary sites in the late summer and four controls in each season. The program was designed to cover all production types, ages and surrounding ecosystems normal to the northcentral Gulf of Mexico. Collections and analyses have included basic hydrography; hydrocarbons in water, sediments and biota; trace metals from similar samples; sediment physical characterization; benthic microbiology., benthic biota; histopathology in fish and invertebrates; and platform associated fouling organisms and fish. This paper presents data from initial sampling and gives observations of trends. The major observations realized are that the Mississippi River overshadows man's activities in affecting the environment in that it overrides ocean water over a considerable area in the nearshore during the summer months causing an oxygen decline and subsequent

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ACC 1205; TYPE P; YEAR 1977
BEHENSKY, J.F.;
REASSESSMENT OF THE DISTRIBUTION OF BENTHIC FORAMINIFERA OF THE SHELF AND SLOPE OF THE ATLANTIC MARGIN AND GULF OF MEXICO OF THE UNITED STATES.

BIBL UNIV. OF MIAMI M.S. THESIS. 119 P.

KEYWORD: foraminifera, benthic, temperature, depth, sediment, continental shelf, continental slope, distribution

ABSTRACT: Distribution patterns of benthic foraminifera from the eastern and southern margins of the United States were determined based on approximately 1000 precompiled samples. In addition to temperature and depth, sediment type was analyzed as a controlling parameter in foram distribution. Sediment distribution was found to correlate closely with generic level foram distribution.

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ACC 1206; TYPE P; YEAR 1977
BEHENSKY, J.F.;

BIBL

KEYWORD:

ABSTRACT: Not available.

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ACC 1207; TYPE P; YEAR 1977
BEHENSKY, J.F.;
REASSESSMENT OF THE DISTRIBUTION OF BENTHIC FORAMINIFERA OF THE SHELF AND SLOPE OF THE ATLANTIC MARGIN AND GULF OF MEXICO OF THE UNITED STATES.

BIBL UNIV. OF MIAMI M.S. THESIS. 119 P.

KEYWORD: foraminifera, benthic, temperature, depth, sediment

ABSTRACT: Distribution patterns of benthic foraminifera from the eastern and southern continental margins of the United States were determined based on approximately 1000 precompiled samples. In addition to temperature and depth, sediment type was analyzed as a controlling parameter in foram distribution. Sediment distribution was found to correlate closely with generic level foram distribution.

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ACC 4001; TYPE P; YEAR 1977
BEHRINGER, D.W.; MOLINARI, R.L.; FESTA, J.F.;
THE VARIABILITY OF ANTICYCLONIC CURRENT PATTERNS IN THE GULF OF MEXICO.

BIBL J. GEOPHYS. RES. 82(34):5469-5476.

KEYWORD: physical, oceanography, circulation, loop current, hydrography, eddy formation, intrusion, currents, temperature, gyre

ABSTRACT: A recent twofold increase in the number of temperature observations available in the Gulf of Mexico has prompted a reappraisal of several ideas regarding the temporal variability of the Loop Current in the eastern gulf and the anticyclonic gyre in the western gulf. The analysis includes both synoptic data drawn from 47 cruises in the eastern gulf and monthly maps of temperature at 200 m prepared from observations over the entire gulf. It is found that on average the penetration of the Loop Current into the gulf increases during the winter and spring, reaching a maximum in the early summer, at which time a large

anticyclonic eddy probably separates from the loop. It is also found that there are substantial deviations from this average sequence of events; during the past dozen years the period between eddy separations has been as short as 8 months and as long as 17 months. The daa coverage of the western gulf is sparse, but there is evidence for the year-round persistence of the anticyclonic gyre and some indications that the gyre may be strongest in summer and winter.

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ACC 4269; TYPE ; YEAR 1981
BEHRENS, E.W.; MIDDLEDITCH, B.S.;
TOTAL ORGANIC CARBON AND CARBON ISOTOPES OF SEDIMENTS. THE BUCCANEER GAS AND OIL FIELD STUDY.

BIBL SYMP. BUCCANEER GAS AND OIL FIELD STUDY, HOUSTON, TX. PLENUM PUBLISHING CORP., NEW YORK. 117-130 P.

KEYWORD: organic carbon, sediments, oil, drilling

ABSTRACT: This paper considers whether the isotopes of carbon in the organic matter of the sediments within and around the Buccaneer field indicate that any alteration of the sedimentary organic matter has resulted from drilling and producing operations. Samples of surficial marine sediments were removed from short cores and samples of older sediments from long piston cores. To develop a predictive model of carbon isotope effects, the specific difference between produced crude and background organic carbon stable isotopes is determined. Results for total organic carbon, stable organic isotopes, and radiocarbon are given. Erosion is indicated both by radiocarbon ages and sedimentation rates of surficial sediments, and these trends fit the predictive model of carbonaceous contamination. A bimodal stable carbon isotope ratio distribution suggests a contamination mode in which the material does not diminish with distance but bypasses a considerable distance before it is deposited. The study area lies between two continental shelf areas with distinct stable carbon isotope differences of sufficient magnitude to account for the two frequency modes found in the Buccaneer field area.

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ACC 437; TYPE ; YEAR 1971
BELLINGER, J.W.;
FOOD HABITS OF JUVENILE POMPANO, TRACHINOTUS CAROLINUS, IN LOUISIANA.

BIBL TRANS. AM. FISH. SOC. 100(3):486-494.

KEYWORD: biology, coastal water, ecology, feeding habit, fish, juvenile

ABSTRACT: Not available.

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ACC 2057; TYPE P; YEAR 1981
BELL, S.S.; MCCLINTOCK, J.B.;
INVERTEBRATES ASSOCIATED WITH ECHINODERMS FROM THE WEST COAST OF FLORIDA WITH SPECIAL REFERENCE TO HARPACTICOID COPEPODS.

BIBL INTERNAT. ECHINODERM CONF. TAMPA, FL. SEPT. 24-27, 1981.

KEYWORD: invertebrate, echinoderm, assemblage, macrofauna, meiofauna, crustacea, habitat

ABSTRACT: Meiofauna and macrofauna were collected from three echinoderm species from the Gulf coast of Florida. Harpacticoid copepods numerically dominated the echinoderma-associated assemblages. Nematodes, amphipods, and ostracods were also abundant on L. variegatus, but were present in low numbers on Arbacia punctulata and Echinaster sp. The high densities of associated invertebrates on L. variegatus are believed to be a result of the echinoid's covering response which provides microhabitats for small invertebrates.

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ACC 2213; TYPE P; YEAR 1979
BELL, C.K.;
NITROGEN FIXATION (ACETYLENE REDUCTION) ASSOCIATED WITH SEAGRASSES ALONG THE NORTHERN FLORIDA GULF COAST.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL.

KEYWORD: biomass, depth, sediment grain size, seagrass, nutrient, organic carbon, nitrogen, light

ABSTRACT: Investigation of nitrogen fixation associated with the seagrasses Thalassia testudinum, Syringodium filiforme and Halodule wrightii was conducted during June-August 1978 on the northern Gulf coast. At one station, N-fixation, leaf area index, and leaf plus epiphyte biomass decreased with depth, suggesting that light influences seagrass and epiphyte growth and the N-fixation associated with epiphytes. The amount of organic matter increased from west to east stations, which was accompanied by increases in epiphyte biomass and N-fixation and a decrease in root biomass. These results support the hypothesis that the morphology of T. testudinum is related to the percentage of ash free dry weight of the sediment, which indirectly affects N-fixation.

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ACC 2257; TYPE P; YEAR 1983
BELL, S.S.; DEVLIN, D.J.;
SHORT-TERM MACROFAUNAL RECOLONIZATION OF SEDIMENT AND EPIBENTHIC HABITATS IN TAMPA BAY, FLORIDA.

BIBL BULL. MAR. SCI. 33(1):102-108.

KEYWORD: polychaete, crustacean, sediment, defaunation, macrofauna, polychaete

ABSTRACT: Macrofaunal recolonization of experimentally defaunated sediments and epibenthic tubecaps was studied in Tampa Bay, Florida, over the time scale of hours and days. In both infaunal and epifaunal systems, adult age classes rapidly colonized experiment treatments. Within 7.5 h after defaunation of sediment patches (100 cubic centimeter) densities of dominant macrofauna returned to control levels. Demersal tap evidence suggested that benthic crustaceans and adults of the polychaete Polydora ligni were present in the water column during our field investigation. Macrobenthic polychaetes and amphipods repopulated defaunated epibenthic structure (Diopatra cuprea tube-caps) within 1.8 d by moving through the water column and/or sediments.

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ACC 4002; TYPE P; YEAR 1982
BELL, F.W.; SORENSON, P.E.; LEEWORTHY, V.R.;
THE ECONOMIC IMPACT AND VALUATION OF SALTWATER RECREATIONAL FISHERIES IN FLORIDA.

BIBL FLORIDA SEA GRANT REP. NO. 47.

KEYWORD: socioeconomic, coastal, recreational fishery

ABSTRACT: This project quantified both market and nonmarket value and economic importance of Florida's saltwater recreational fishery, a significant but poorly described element in the state's economy and multi-billion dollar tourist industry. During 1980-1981, 2,177,217 anglers 18 years and older engaged in saltwater recreational angling. Approximately 78% of all resident angler fishing days were spent within Florida's territorial waters. Resident anglers spent approximately $1.1 billion at the retail level or $508.97 per angler during 1980-1981. 20,368 retail employees in Florida depend on resident saltwater recreational fisheries for their livelihood. Nearly 57% of all resident saltwater anglers were willing to pay at least $6.75 for a saltwater fishing license. During 1980-1981, 3,047,322 tourist anglers 18 years or older engaged in saltwater recreational fishing. Approximately $.763 billion were spent directly by tourist saltwater anglers at the retail level. Approximately $3.95 billion were directly and indirectly generated by tourist saltwater anglers. 103,510 employees in Florida depend on direct and indirect expenditures generated by tourists on saltwater recreational fishing. Over 52% of all tourist saltwater anglers were willing to pay at least $10.50 for a saltwater license.

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ACC 2237; TYPE P; YEAR 1971
BENDER, E.S.;
STUDIES OF THE LIFE HISTORY OF THE STONE CRAB, MENIPPE MERCENARIA (SAY), IN THE CEDAR KEY AREA.

BIBL MASTER'S THESIS. UNIVERSITY OF FLORIDA. GAINESVILLE, FL.

KEYWORD: life history, stone crab, sponge, seagrass, habitat

ABSTRACT: The life history of the stone crab, Menippe mercenaria, was studied at Cedar Key, Florida. Females with eggs were commonly found in burrows on Thalassis grassflats in the spring through late summer, and most males were found there in the fall. Juveniles were most abundant on shell bottoms, grassflats, sponge, and rock. Many juveniles were found to move to oyster bars the following spring. Sexual maturity was probably reached the second fall. After mating in winter, females moved to deep grassflats and channels, while many males moved to deep water and offshore in the spring. Apparently two populations exist -- one population offshore, mostly males, migrates in the early winter for mating and possibly for protection from predators; and a second population, mostly females, remains inshore all year and spawn from March to October. Stridulation is described, but function was not determined for this process. Adult crabs need several molts to replace a new claw that is large enough to be commercially harvested for the second time. Harvest of the entire male crab over 8.5 cm carapace width is suggested to replace the present practice of claw removal.

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ACC 438; TYPE ; YEAR 1973
BENNETT, J.A.;
FOOD HABITS AND FEEDING CHRONOLOGY OF THE LONGNOSE KILLIFISH, FUNDULUS SIMILIS (BAIRD AND GIRARD) FROM ST. LOUIS BAY, MISSISSIPPI.

BIBL MASTER'S THESIS. MISSISSIPPI STATE UNIVERSITY. HATTIESBURG, MS. 32 PP.

KEYWORD: biology, ecology, feeding habit, fish

ABSTRACT: Not available.

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ACC 246; TYPE ; YEAR 1971
BERGANTINE, R.N.;
SUBMARINE REGIONAL GEOMORPHOLOGY OF THE GULF OF MEXICO.

BIBL GEOL. SOC. AM., BULL. 82:741-752.

KEYWORD: continental shelf, geology, geomorphology, topography, continental slope, sediment, diapir, Pleistocene

ABSTRACT: Recent surveys and investigations in the Gulf of Mexico have provided sufficient new data to warrant an updated regional geomorphic classification. The Gulf region is divided, according to the methods used by geomorphologists for continental areas, into three major geomorphic divisions and sixteen provinces.

Some of the provinces are further subdivided into sections and subsections. Most sections of the continental shelf contain Pleistocene wave-cut terraces. The lowest terraces generally lie near a depth of 65 fm. The continental slope is considered here to be a major geomorphic division, rather than a province, because of its variety of landforms and areal differences in geomorphic history. The steepness of the continental slope ranges from 2 deg. on the DeSoto Slope to greater than 45 deg. over limited areas of the reef-formed West Florida and Campeche Escarpments. Diapirs underlie all non-carbonate slopes and have largely altered the pre-existing topography. Great thicknesses of evenly bedded sediments underlie the Gulf floor. The deeper sediments were derived from the northwest and pre-date the salt tectonism that produced the Sigsbee Escarpment and the numerous diapirs.

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ACC 2040; TYPE P; YEAR 1967
BERRY, R.J.;
DYNAMICS OF THE TORTUGAS (FLORIDA) PINK SHRIMP POPULATION.

BIBL PH.D. THESIS. UNIVERSITY OF RHODE ISLAND. KINGSTON, RI.

KEYWORD: pink shrimp, population, fishery, decapod, tagging, stress, management

ABSTRACT: An analysis of historical information, a 3 yr. interview survey, and two mark-recapture experiments were used to assess the penaeid shrimp population of the Tortugas. Results suggest that a reduction in fishing pressure and management to increase the size of shrimp first exposed to capture would benefit the fishery.

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ACC 4215; TYPE P; YEAR 1977
BERRY, R.J.; MCRAE, E.D.;
ENVIRONMENTAL ASSESSMENT OF AN OFFSHORE OIL FIELD: A PROGRESS REPORT.

BIBL IN: 'PROG. REV. PROC. ENVIRON. EFFECTS OF ENERGY RELATED ACTIVITIES ON MAR./ESTUAR. ECOSYSTEMS' REPT. NO. EPA.600/7-77-111 AND DEMI-77-25. 143-52

KEYWORD: fishing, pollution, shrimp

ABSTRACT: The area selected for study is the Buccaneer Oil Field located about 53 km (32 miles) south of Galveston. This field was chosen because it is isolated from other production areas and has been in operation long enough to allow development of climax communities. Situated in commercial shrimping grounds, it is a focal point for recreational fishing and diving activities. Objectives of the study are to compare ecosystems in the vicinity of a producing field with those in nearby unaltered areas and to identify changes attributable to pollutants and the presence of structures.

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ACC 1208; TYPE P; YEAR 1978
BERT, T.M.; WARNER, R.E.; KESSLER, L.D.;
THE BIOLOGY AND FLORIDA FISHERY OF THE STONE CRAB, MENIPPE MERCENARIA (SAY), WITH EMPHASIS ON SOUTHWEST FLORIDA

BIBL FLA. SEA GRANT TECH. PAP. NO. 9. 82 P.

KEYWORD: stone crab, fishery, decapod, biology, invertebrates, commercial fisheries

ABSTRACT: This report summarizes the knowledge regarding the natural history of the stone crab, and evaluates the stone crab fishing industry. Baseline data for future use in monitoring a commercially exploited area was given. The relation of the southwest Florida stone crab fishery to that of the rest of the state was discussed.

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ACC 2164; TYPE P; YEAR 1983
BERT, T.M.;
BIASES INHERENT IN INFERRING THE POPULATION DYNAMICS OF A LARGE MOBILE DECAPOD CRUSTACEAN WHEN USING TRAPS FOR SAMPLING

BIBL PRESENTED AT BENTHIC ECOL. MEET., FLORIDA INSTITUTE OF TECHNOLOGY. MELBOURNE, FL.

KEYWORD: stone crab, population dynamics

ABSTRACT: Data from several studies were used to examine bias in sampling of stone crabs (Menippe mercenaria) with traps. Changes in the population structure of the trapped crabs varied with trap type, duration between samplings, season and composition and density of the sampled populations. Caution against similar biases in trapping studies of other large mobile decapod crustaceans is advised.

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ACC 2165; TYPE P; YEAR 1983
BERT, T.M.; DODRILL, J.; DAVIS, G.E.; TILMONT, J.;
THE POPULATION DYNAMICS OF THE STONE CRAB (MENIPPE MERCENARIA) IN EVERGLADES AND BISCAYNE NATIONAL PARKS.

BIBL FLA. SCI. 46(SUPPL. 1):24.

KEYWORD: distribution, stone crab, population dynamics, abundance, growth, migration

ABSTRACT: Temporal and spatial variations in the distribution, abundance, sex, ratio, size class frequency, and reproductive effort of stone crabs (Menippe

mercenaria) were investigated for one year throughout south Florida nearshore waters. A major nursery area for stone crabs was discovered offshore from the Big Cypress and Everglades estuaries. It was hypothesized that crabs from that area disperse southward through Florida Bay and the Florida Keys. Stone crabs trapped in Biscayne National Park were not locally restricted, but may be migrating from farther north along the Florida east coast.

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ACC 2058; TYPE P; YEAR 1979
BIERI, R.;
HYDROCARBONS IN DEMERSAL FISH, MACROEPIFAUNA, AND ZOOPLANKTON. IN: MAFLA FINAL REPT. (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRON. STUDY. 1977/1978.

BIBL DAMES & MOORE FOR BLM CONTR. #AA550-CT7-34. VOL II. CH. 9, 531-571

KEYWORD: hydrocarbon, demersal fish, epifauna, zooplankton, MAFLA

ABSTRACT: As part of a large study of the biota of the Mississippi, Alabama and west Florida continental shelves, the tissues of demersal fish, macroepifauna and zooplankton were analyzed for hydrocarbon content. Hydrocarbon fractions were identified, and spatial trends of hydrocarbon distribution over the study area were discussed. Little evidence for the presence of petroleum was found in demersal fish or macroepifauna.

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ACC 2220; TYPE P; YEAR 1970
BISHOP, J.M.
BURYING, GROWTH, AND MOLTING OF PINK SHRIMP PENAEUS DUORARUM UNDER PHOTOPERIODS OF WHITE LIGHT AND U.V LIGHT.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL

KEYWORD: pink shrimp, light, growth

ABSTRACT: Comparative effects of different photoperiods of UV light and white light on the burying, growth and molting of Penaeus duorarum were studied under controlled conditions. Statistically significant differences for growth and molting rates were not evident when data were analyzed on an average daily basis. Ecdysis occurred during scotophase of any photo period. A circadian burying activity was found in shrimp exposed to continuous UV light. Shrimp kept in continuous darkness molt significantly more during the time coinciding with scotophase, and thus exhibited a weak endogenous molt rhythm. The poorest growth occurred in groups exposed to UV light and best under constant dark and 12 hour light: 12 hour dark conditions. Since approximated maximum daily growths were found to be less than the best estimates of natural growth, it was suggested that other factors (crowding, available space, food, water quality and cannibalism) might be involved.

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ACC 2221; TYPE P; YEAR 1976
BITTAKER, H.F.; IVERSON, R.L.;
THALASSIA TESTUDINUM PRODUCTIVITY: A FIELD COMPARISON OF MEASUREMENT METHODS.

BIBL MAR. BIOL. 37(1):39-46

KEYWORD: carbon, seagrass, primary productivity, carbon-14

ABSTRACT: Net primary production rates in Thalassia testudinum from the NE Gulf of Mexico were measured during a study comparing the Wetzel inorganic 14C uptake and Zieman leaf biomass techniques of measuring primary production rates. There were no significant differences for the two methods when the 14C uptake technique was corrected for sediment 14C "uptake", incubation chamber energy absorption, and differences in total light energy. The results confirm previous evidence that the 14C technique estimates net particulate-carbon production.

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ACC 4004; TYPE P; YEAR 1981
BLAHA, J.; STURGES, W.;
EVIDENCE FOR WIND-FORCED CIRCULATION IN THE GULF OF MEXICO.

BIBL J. MAR. RES. 39(4):711-734.

KEYWORD: circulation, dynamic height, wind stress, physical, oceanography, seasonality

ABSTRACT: A study is conducted into the response of sea level and dynamic height to fluctuations of alongshore wind stress and wind stress curl at periods greater than a few months per cycle. Monthly tide gauge data from Key West to Progreso, Mexico, during 1954 to 1974 are adjusted to remove the effects of local atmospheric pressure and seasonal steric heating. The adjusted mean monthly sea level elevations are significantly greater from Progreso to Port Isabel than they are elsewhere in the Gulf. This observation remains unchanged after the elevations are reduced for the effect of local alongshore winds. Among the tide gauges in the western Gulf, Galveston is the most coherent with the local alongshore wind forcing at periods greater than 2 mo/cycle, exhibiting a phase with the winds not significantly different from pi. At the other coastal sites, at least half of the 1\elevation signal remains. This residual signal is presumed to be caused by the geostrophic fluctuations of an offshore boundary current. The available wind data from the western half of the Gulf show a negative wind stress curl; the mean is -11 x 10- dyne/cubic centimeter and curl is most negative in July. A common feature in the sea level elevations from Progreso to Port Isabel and in curl is the sharp transition from summer to fall. It is suggestive of a seasonal

component to the Gulf circulation forced by the wind stress curl. This transition occurs from July to September in curl but from August to October in sea level, a one month lag. The observed 17 cm of change in elevation corresponds to 23 x 10- dyne/cubic centimeter of change in curl. A mean...

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ACC 2060; TYPE P; YEAR 1977
BLAKE, N.J.;
INFAUNAL MACROMOLLUSCAN ASSEMBLAGES OF THE EASTERN GULF OF MEXICO, 1975-76

BIBL UNPUBL. REPT. U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, WASHINGTON, DC. 43 P.

KEYWORD: infaunal, mollusc, diversity, season, depth, latitude, temperature, salinity, DO, sediment

ABSTRACT: This report presents the results of the macroinfaunal molluscs study of the Bureau of Land Management sponsored program in the Mississippi, Alabama, Florida (MAFLA) outer continental shelf. One hundred forty-one taxa of gastropods, 120 taxa of bivalves, 13 taxa of scaphopods, 7 taxa of polyplacophorons and 1 aplacophoran taxa were obtained from the study. Abundance of each of the 282 taxa ranged from 1 individual/0.54 square meters to 605 individuals/0.54 square meters. Shannon-Weaver diversity index values ranged from 0.26 to 3.36 and generally decreased offshore. Seasonal and spatial variations were present in both density and diversity. A classification analysis distinguished five major clusters. These faunal breaks appeared to be only partially related to sediment classification. Season, depth, latitude, and sampling problems appeared to be some of the other important factors.

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ACC 2061; TYPE P; YEAR 1978
BLAKE, N.J.;
HISTOPATHOLOGY OF EPIFAUNAL INVERTEBRATES OF THE EASTERN GULF OF MEXICO. IN: MAFLA FINAL REPORT (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL STUDY. 1977/1978).

BIBL DAMES AND MOORE, INC. FOR BUREAU OF LAND MANAGEMENT CONTRACT #AA550-CT7-34. VOL. II, (18):837-860.

KEYWORD: pathology, epifauna, invertebrate, MAFLA

ABSTRACT: Since 1975, 14,732 slides were made and analyzed for pathological conditions. Ninety-eight epifaunal species are represented by the slides. The incidence of pathological conditions potentially induced by hydrocarbons was completely absent. The fauna of the study area may be described as healthy and the environment pristine in comparison to other shelf areas.

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ACC 2195; TYPE P; YEAR 1979
BLAKE, N.J.;
INFAUNAL MACROMOLLUSCS OF THE EASTERN GULF OF MEXICO.

BIBL MAFLA REPT. SUBMITTED TO DAMES & MOORE, INC. FOR U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, CONTRACT #AA50-CT7-34. P. 668-698.

KEYWORD: infaunal, mollusc, season, sediment, temperature, depth, MAFLA

ABSTRACT: The macromolluscs of the Eastern Gulf of Mexico were sampled over 7 seasons from 1975 to 1978. A total of 322 taxa were identified. The list includes both temperate and tropical species. In the northern sections of the Eastern Gulf of Mexico the molluscs were highly influenced by the discharge of the Mississippi River and as a result the species richness and abundance were low; the species present were mostly deposit feeders which can survive the fine sediments. In the southern areas species richness and abundance increase, although they varied highly from one season to another and from one year to another. A total of 7 groups of stations resulted from cluster analysis. These groups appear to show a north-south linearity. Apparently the macromolluscan assemblages of the Eastern Gulf of Mexico are con...

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ACC 4005; TYPE P; YEAR 1983
BLAKE, N.J.; DOYLE, L.J.;
INFAUNAL-SEDIMENT RELATIONSHIPS AT THE SHELF-SLOPE BREAK.

BIBL SOC. ECON. PALEON. MINERAL. SPEC. PUBL. 33:381-389.

KEYWORD: infauna, continental shelf, continental slope, biology, benthic, grain size, biomass, mollusca, sediment, food habit, invertebrates, ecology

ABSTRACT: Infauna changes dramatically across the shelf-slope break, along with the physical and chemical parameters of the sediments and overlying water column. Grain size across the transition first increases slightly, then rapidly changes from sand to mud with concomitant increase in clay mineral and organic matter content. Light penetration decreases and there occurs a damping of seasonal temperature fluctuations. Infaunal assemblages change from those characterized by filter feeder organisms to those dominated by deposit feeders. Of the animals with hard parts likely to be preserved in the fossil record, the molluscan order nuculoida, composed of deposit feeders, is heavily represented seaward of the mudline. Biomass and density of organisms first decrease as grain size gets larger near the shelf edge then increase as the mudline is crossed, then decrease again in the mud downslope. Winnowing recycles fecal material from the shelf infaunal assemblages back into the water column. This contributes to the generally high productivity of shelf waters. Much of the feces seaward of the mudline is incorporated as part of the sediment, contributing to the relatively high organic content. Deposit feeders downslope of the

mudline are the primary source of sediment reworking, while physical winnowing processes are more important at and adjacent to the shelfedge. In the sedimentary record, a sudden change in fossils from groups dominated by filter feeders to groups dominated by deposit feeders may indicate proximity to the shelf-slope break. Such a diagnostic change is associated with a decrease in fossil content of a sand layer...

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ACC 744; TYPE; YEAR 1964
BOADEN, P.J.S.;
GRAZING IN THE INTERSTITIAL HABITAT: A REVIEW. IN: D.J. CRISP, ED. GRAZING IN THE MARINE ENVIRONMENT.

BIBL BLACKWELL PUBLISHERS, OXFORD, ENGLAND. 322 PP.

KEYWORD: benthic community, biology, coastal water, feeding habit, meiofauna, sediment, larval

ABSTRACT: Marine sand provides three different types of habitat, the epi-, endo-, andmesopsammon. Little is known of the feeding habits of the interstitial (mesopsammic) fauna, though generalizations can be made. The basic food sources are detritus, dead plankton, bacteria and autotrophs, such as diatoms. Various mesopsammic and endopsammic species graze from individual sand grains. The interstitial fauna forms part of the food source of larger indiscriminate sand grazers. Very few interstitial species have pelagic larval development but dispersion of the fauna may be aided by shore-grazing birds. Thus grazing phenomena may affect the interstitial fauna in three ways - nutrition, depletion and dispersal.

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ACC 2062; TYPE P; YEAR 1980
BOBBIE, R.J.;
CHARACTERIZATION OF THE STRUCTURE OF MARINE AND ESTUARINE BENTHIC AND FOULING MICROBIAL COMMUNITIES USING LIQUID CHEMISTRY.

BIBL PH.D. DISSERTATION. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL. 162 P

KEYWORD: benthic, fouling, community, biomass, diversity, richness, lipid, estuary, macrofauna

ABSTRACT: Assays for microbe derived lipid components were developed to aid in determining the structure of benthic microbial communities, which form the basis of trophodynamics in detrital and benthic ecosystems. Lipid analysis provided evidence for changes in biomass, relative dominance of prokaryotic and eukaryotic components, and species composition. Field verification studies revealed significant correlation between the fatty acids used to delineate microbial community structure and macrofaunal biomass, species diversity and species richness.

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ACC 2233; TYPE P; YEAR 1981
BOBBIE, R.J. ET AL.;
EFFECT OF LIGHT ON BIOMASS AND COMMUNITY STRUCTURE OF ESTUARINE DETRITAL MICROBIOTA

BIBL APPL. ENVIRON. MICROBIOL. 42(1):150-158

KEYWORD: community, algae, light, biomass, temperature, salinity, DO

ABSTRACT: Variations in community structure were observed in estuarine detrital microbiota grown with and without light in the absence of macroscopic grazing by analysis of associated biochemical measures. Growth in light showed small increases in measures of procaryotes and microfauna. Algae and fungi biomass increased 10 to 15 times when grown in light. Increases in diatom growth were maximal in light, as confirmed by scanning electron microscopy.

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ACC 2063; TYPE P; YEAR 1977
BOCK, W.D ;
FORAMINIFERA OF THE MAFLA AREA (1975-76).

BIBL UNPUBL. REPT. SUBMITTED TO U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT. WASHINGTON, DC. 23 P.

KEYWORD: foraminifera, benthic, diversity, distribution, seasonal, pollutant, temperature, salinity, DO, sediment, MAFLA

ABSTRACT: This report presents the results of the foraminifera study of the Bureau of Land Management sponsored program in the Mississippi, Alabama, Florida (MAFLA) outer continental shelf. The author presents a list of the dominant benthic foraminiferal species, diversity and evenness values and concludes: A comparison of living benthonic foraminferal faunas of the MAFLA area from 1974 and 1975 indicates changes in species distribution and abundance occur naturally. At some stations these changes are relatively unimportant while others are extreme. The causes for extreme change at one station while a station immediately adjacent has relatively little change are not completely understood at present. Seasonal sampling should clarify the causes for these changes. Several foraminiferal trends have become apparent in the MAFLA area. Many of these are at least partially understood, but, again, seasonal sampling should clarify the reasons for the trends. Stress indicator species occur in the MAFLA area and further monitoring should enable us to achieve a better understanding of their reactions to natural changes in the environment in addition to providing a means for determining introduction of man made pollutants and their potential danger to the environment.

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ACC 2064; TYPE U; YEAR 1979
BOCK, W.D.;
FORAMINIFERA OF THE MAFLA AREA.

BIBL REPT. SUBMITTED TO DAMES & MOORE, INC., FOR THE BUREAU OF LAND MANAGEMENT. MAFLA FINAL REPT. (1977-78). CONTRACT #AA550-CT7-34. P 626-639.

KEYWORD: foraminifera, benthic, depth, sediment, temperature, salinity, DO, MAFLA

ABSTRACT: Sites along eight transects of the continental shelves of Mississippi, Alabama, and Florida (MAFLA) were sampled 4 times between summer of 1976 and winter of 1978 to examine benthic foraminifera community structure. Seasonal fluctuations in foraminiferal abundance were relatively small although abundance of major dominant species sometimes changed drastically. Comparisons of abundance and species composition are drawn with results from a 1975-76 study. Spatial trends of foraminifera in the MAFLA area are identified and related to depth and sediment type. Characteristic species of each depth zone are given.

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ACC 386; TYPE P; YEAR 1967
BOCK, W.D.;
A COMPARISON OF THE MONTHLY VARIATION IN FORAMINIFERAL BIOFACIES ON THALASSIA AND SEDIMENT, BIG PINE KEY AREA, FLORIDA.

BIBL PH.D. DISSERTATION. UNIVERSITY OF MIAMI. MIAMI, FL 291 P.

KEYWORD: Monroe, foraminifera, substrate, distribution, sediment, abundance, temperature, salinity, grain size, seagrass

ABSTRACT: Eighty-one species of benthic foraminiera were found between Big Pine Key and Toch Keys in the lower Florida Keys. Foraminiferal distribution was related to substrate type, which was apparently determined by the distribution of Thalassia testudinum. Nine species dominated the grass beds and 11 species were dominant in or on the sediment. Species preferences for sediment type or grass are cited. Population variations appeared to be temperature related in 10 species. No correlations between population changes and temperature or salinity were discovered for the other species. Foraminiferal abundance and distribution were also regulated by interspecific and intraspecific competition.

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ACC 2387; TYPE P; YEAR 1968
BOCK, W.D.;
TWO NEW SPECIES OF FORAMINFERA FROM THE FLORIDA KEYS.

BIBL CONTRIB. CUSHMAN FOUND. FORAMINIFERAL RES. XIX(1):27-29.

KEYWORD: Monroe, foraminifera

ABSTRACT: One new species belonging to a new genus. Hemidiscalia palabunda, and one new species, Fissurina, F. pellucida are described. Both species were from waters adjacent to Big Pine Key, Florida and both were found living on a substrate of Thalassia testudinum Konig.

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ACC 4164; TYPE P; YEAR 1985
BOESCH, D.F.; RABALAIS, N.N. (EDS.);
THE LONG-TERM EFFECTS OF OFFSHORE OIL AND GAS DEVELOPMENT: AN ASSESSMENT AND A RESEARCH STRATEGY.

BIBL REPORT PREPARED BY LOUISIANA UNIVERSITIES MARINE CONSORTIUM FOR NATIONAL MARINE POLLUTION PROG. OFC., NOAA, ROCKVILLE, MD.

KEYWORD: oil and gas, development, physical, chemical, biological, oceanography, sediment, drilling mud, drill cutting, hydrocarbon, geology

ABSTRACT: With the expansion of exploration for oil and gas in offshore regions of the United States during the 1970s, there was much concern regarding the environmental effects of future development. Legal and legislative actions have been taken to stop or slow development, in large part based on concerns that deleterious effects on the marine environment would result. Ambitious federal programs of studies of the potentially affected environment were implemented to address these concerns and ensure environmental protection. Despite these efforts, controversies regarding the seriousness of potential effects still exist, particularly with regard to subtle, but long-term effects. What exactly are the effects which might occur and what is the relative seriousness of each? In response to the need to answer these questions for the development of a considered and carefully planned strategy to address these concerns, COPRDM commissioned the effort resulting in this volume in late 1982 with funding provided by the National Science Foundation and the National Oceanic and Atmospheric Administration, Office of Marine Pollution Assessment (now Ocean Assessment Division) and National Marine Pollution Program Office. The ultimate purpose of this project has been to develop recommendations for the design of an environmental research and monitoring program to quantify and evaluate the significance of subtle and long-term effects of offshore oil and gas development activities. To accomplish this the participants decided

that extensive background must be developed to support the conclusions and recommendations.

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ACC 364; TYPE ; YEAR 1968
BOGDANOV, D.W.; SOKOLOV, V A.; KROMOV, N.S.;
REGIONS OF HIGH BIOLOGICAL AND COMMERCIAL PRODUCTIVITY IN THE GULF OF MEXICO AND CARIBBEAN SEA.

BIBL OCEANOGRAPHY 8(3):371-381

KEYWORD: biology, fishery, hydrology, plankton, productivity, hydrography, chemistry, seasonal

ABSTRACT: Hydrological conditions, hydrochemical conditions, plankton distribution and commercial possibilities of common fishes in the Gulf of Mexico and Caribbean are discussed. High biological and commercial productivity are correlated with regions of upwelling and continental runoff. Regions associated with upwelling have high and constant productivity and commercial yield, while regions associated with continental runoff are characterized by seasonal and annual fluctuations of productivity and seasonal commercial yield.

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ACC 1044; TYPE ; YEAR 1971
BOHANNON, B.J.;
THE OCCURRENCE OF NITROGEN FIXATION IN ESCAMBIA BAY AND MULATTO BAYOU.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 65 PP

KEYWORD: dissolved oxygen, microfauna, electrical conductivity, nitrate, salinity, secchi disc, nitrogen, water temperature

ABSTRACT: Gas chromatographic determination of acetylene reduction was used to describe the occurrence of nitrogen fixation in Escambia Bay and Mulatto Bayou, Florida. Water and sediment samples were collected at 44 stations from October, 1970 to March, 1971 and analyzed for acetylene reduction and principal nitrogen fixing microbiota.

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ACC 4006; TYPE P; YEAR 1983
BOHNSACK, J.A.;
RESILIENCY OF REEF FISH COMMUNITIES IN THE FLORIDA KEYS FOLLOWING A JANUARY 1977 HYPOTHERMAL FISH KILL.

BIBL ENVIRON. BIOL. FISH 7(1):41-53.

KEYWORD: biology, communities, ecology, fishes, reefs, reef fishes, recruitment, coastal, stress

ABSTRACT: In January 1977, a record breaking cold spell caused fish kills at Big Pine Key, Florida. Census data collected before and after the cold spell from a series of model reefs constructed in 1975 showed significant drop in mean number of reef fish species and individuals. Following this disturbance, high recruitment of juveniles occurred, presumably due to reduced competition, predation, or a combination of these. Model and natural patch reef communities examined the summer following the cold spell (1977) were significantly different from those examined the summer before (1976) and the second summer following the cold spell (1978). During the summer of 1977, a significantly smaller mean fish size and a significantly greater mean number of species and individuals were observed. Increased species richness following the cold spell is consistent with the intermediate disturbance hypothesis. Contrary to some theoretical predictions, results suggest reef fish communities are highly resilient to some regional disturbances.

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ACC 2388; TYPE P; YEAR 1983
BOOKER, F.; FLYNN, B.; THORHAUG, A; SHROEDER, P.;
RED MANGROVE, RHIZOPHORA MANGLE, RESTORATION AT KEY LARGO: RESULTS AFTER SEVENTEEN MONTHS.

BIBL FLA. SCI. 46(SUPPL. 1):16.

KEYWORD: Monroe, coastal, flora

ABSTRACT: Growth and survival of red mangrove, Rhizophora mangle, propagules and seedlings planted on Key Largo, Florida, in July 1981 were measured over an area of approximately 27,712 sq. meters in January 1983. The restored mangroves, planted in mitigation for water pipeline construction in the Florida Keys, exhibited a survival rate ranging from 52-64%. Mean tree height was 43.3 +/-9.8 cm, mean number of primary branches was 2.4 +/- 5.5,and mean number of leaf pairs was 10.4 +/- 14.2 (mean +/- std. dev.).

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ACC 267; TYPE ; YEAR 1973
BOONE, P.A.;
DEPOSITIONAL SYSTEMS OF THE ALABAMA, MISSISSIPPI AND WESTERN FLORIDA COASTAL ZONE.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC. 23:266-277.

KEYWORD: barrier island, coastal zone, continental shelf, geology, sediment, sediment distribution, MAFLA

ABSTRACT: The northeastern Gulf of Mexico, from the Mississippi River to DeSoto Canyon, is a complex of interrelated dynamic depositional systems. Fluvial-deltaic, estuarine, barrier-island and marine-shelf systems characterize this part of the Gulf. The Pearl, Pascagoula, and Mobile fluvia-deltaic systems are major sources of sediment in the area. This complex is similar to that of the Texas coastal zone, but specific facies, geometry, and spatial relations differ. Recognition of these aspects of the Alabama, Mississippi, and western Florida coastal-zone depositional systems is an important consideration in planning and developing a petroleum exploration program.

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ACC 439; TYPE ; YEAR 1971
BOOTHBY, R.N.; AVAULT, J.W.;
FOOD HABITS, LENGTH-WEIGHT RELATIONSHIP, AND CONDITION FACTOR OF THE RED DRUM (SCIAENOPS OCELLATA) IN SOUTHEASTERN LOUISIANA.

BIBL TRANS. AM. FISH. SOC. 100(2):290-295.

KEYWORD: biology, coastal water, ecology, feeding habit, fish

ABSTRACT: Not available.

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ACC 440; TYPE ; YEAR 1971
BORTONE, S.A.;
STUDIES ON THE BIOLOGY OF THE SAND PERCH, DIPLECTRUM FORMOSUM (PERCIFORMES: SERRANIDAE).

BIBL DEPARTMENT OF NATURAL RESOURCES, FL. TECHNICAL SERIES 65:1-27

KEYWORD: biology, ecology, fish

ABSTRACT: Not available.

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ACC 2065; TYPE U; YEAR 1977
BORTONE, S.A.; MAYER, G.F.; SHIPP, R.L.;
BLM MAFLA DEMERSAL FISH SURVEY, 1975-1976.

BIBL UNPUBL. REPT. U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT. WASHINGTON, DC. 17 P. + 2 APPENDICES.

KEYWORD: demersal fish, diversity, biomass, hydrocarbon, metal, depth, temperature, salinity, DO, sediment, MAFLA

ABSTRACT: This report presents the results of the demersal fish study of the Bureau of Land Management sponsored program in the Mississippi, Alabama, Florida (MAFLA) outer continental shelf. The authors summarize the results as follows: A total of 8,882 specimens representing 204 species were captured, identified, weighed, measured, and archived. These data were then analyzed for species diversity, seasonal variation of species composition and biomass, dominant species and possible migratory activity. In addition, tissue samples were removed from selected individuals for subsequent hydrocarbon/trace metal analysis. Species diversity appeared most consistent at 183 m stations. However, differences in absolute diversity between depths were inconclusive. Numbers of species and biomass appeared only slightly higher at shallower depths. There appeared to be little geographical variation in any of these parameters. Species dominance was the most consistent and valuable faunal characterization noted. Based on species dominance, faunal variation was more marked between depths than between geographically separate stations of the same depth.

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ACC 4007; TYPE P; YEAR 1977
BORTONE, S.A.; HASTINGS, P.A.; COLLARD, S.B.;
THE PELAGIC-SARGASSUM ICHTHYOFAUNA OF THE EASTERN GULF OF MEXICO.

BIBL. N.E. GULF SCI. 1(2):60-67.

KEYWORD: biology, ecology, fish, community, neuston, pelagic fish

ABSTRACT: A total of 2,857 fishes comprising 15 families and 40 species was collected at 62 localities in the eastern Gulf of Mexico between 1971 and 1976. The fauna was dominated by the Carangidae, Balistidae, and Syngnathidae. Monacanthus hispidus was the most abundant species and comprised 84.5% of the total fauna. Species diversity (H') was variable within the Gulf and low in comparison with the western Atlantic, Sargassum--associated ichthyofauna. "Index of Affinity" was high within the Gulf due to the abundance of M. hispidus. Perhaps conditions associated with community dispersal, for which M. hispidus is better adapted, permit this species to dominate this community. Additionally, species diversity differences may be due to substrate area of "clumpsize."

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ACC 4165; TYPE P; YEAR 1986
BOTHNER, M.H.; ET AL.;
ANALYSIS OF TRACE METALS IN BOTTOM SEDIMENTS IN SUPPORT OF DEEPWATER BIOLOGICAL PROCESSES STUDIES ON THE U.S. MID.ATLANTIC CONTINENTAL SLOPE AND RISE.

BIBL. A 2ND INTERIM REPT. PREPARED BY U.S. GEOLOGICAL SURVEY (INTERAGENCY AGREEMENT #14-12-0001-03197) FOR MINERALS MANAGEMENT SERVICE, VIENNA, VIRGINIA.

KEYWORD: oil, drilling mud, trace metal, barium, drill cutting, sediment, grain size

ABSTRACT: Sediment samples collected during the first four cruises to the continental slope and rise off the Mid-Atlantic states have been analyzed for 12 metals (Al, Ba, Cd, Cr, Cu, Fe, Hg, Mn, Ni, Pb, B, and Zn). Because of its high concentration in drilling mud, Ba is most commonly measured to trace drilling mud in the marine environment. In this study only small changes in Ba concentrations in sediments have been noted to date. In one core collected on Cruise 3 from Station 1 adjacent to the drilling in Block 372, the concentration of Ba was 13 percent higher in the surface sediment than deeper sediment. This enrichment is probably not harmful to benthic organisms. Other samples from Cruise 3, Station 1 do not show the same increase indicating a patchy distribution of drilling-related Ba. At Stations 13 and 14, near the site of drilling in Block 93, there is no significant change in the average concentration of Ba in surface sediment over the first four cruises. There was no evidence of accumulating drill cuttings in the grain size of sediment cores were analyzed. The strongest signal from drilling mud was observed in sediment trap samples placed within the upper 850 m of the water column n a subsurface mooring 1.8 km south-southwest of the drilling rig in Block 372. Discrete particles of barite were observed in preliminary analyses by means of a scanning electron microscope. These samples should yield additional information about the dispersal and fall velocity of drilling mud in sea water.

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ACC 569; TYPE ; YEAR 1968
BOUMA, A.H.; BRYANT, W.R.; DAVIES, D.K.; TIEH, T.T.;
STUDY OF THE CONTINENTAL SHELF OF THE GULF OF MEXICO.

REPORT TO THE U.S. GEOLOGICAL SURVEY.

BIBL. TEXAS A&M UNIVERSITY, DEPARTMENT OF OCEANOGRAPHY, COLLEGE STATION, TX. PROJECT 506, REFERENCE 68.2T. 139 PP.

KEYWORD: geochemistry, geologic history, geology, mineralogy, continental shelf, sediment, stratigraphy, structure

ABSTRACT: Not available.

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ACC 583; TYPE ; YEAR 1970
BRAUNSTEIN, J. ED.;
BIBLIOGRAPHY OF GULF COAST GEOLOGY, SPECIAL PUBLICATION 1.

BIBL. GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES, NEW ORLEANS, LA. 2 VOLS. 1045 PP.

KEYWORD: bibliography, coastal water, geology

ABSTRACT: Not available.

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ACC 4218; TYPE P; YEAR 1978
BRAVO, H.A.; SALAZAR, S.L.; BOTELLO, A.V.; MANDELLI, E.F.;
POLYAROMATIC HYDROCARBONS IN OYSTER FROM COASTAL LAGOONS ALONG THE EASTERN COAST OF THE GULF OF MEXICO, MEXICO.

BIBL. BULL. ENVIRON. CONTAM. & TOXICOL. 19(2);171-176.

KEYWORD: hydrocarbon, oil spill, mollusk, pollution

ABSTRACT: Polynuclear aromatic hydrocarbons (PAHs) appear to be widely distributed in the sea, as well as in river water and soil. The presence of these compounds in aquatic organisms has been mainly attributed to oil spills, but biosynthesis, aerial transport, and terrestrial contributions are also important sources. The assessment of PAHs levels in marine bivalve mollusks has attracted great interest, since they are useful in determining the status of coastal areas with regard to petroleum contamination. The total concentrations of the PAHs in the analyzed samples are surprisingly high for oyster tissues. No single causative factor will adequately explain environmental data of this kind because the possibility of accidental spillages and intermittent activities that may contribute to the distortion of these results and provide a basis for further investigation.

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ACC 805; TYPE ; YEAR 1975
BREHM, W.T.;
DISTRIBUTION PATTERNS IN DIOPATRA CUPREA.

BIBL MASTER'S THESIS. UNIVERSITY OF ALABAMA, TUSCALOOSA, AL. 50 PP.

KEYWORD: benthic fauna, salinity, sediment texture, water temperature, polychaete, distribution

ABSTRACT: The distribution patterns of Diopatra cuprea, a polychaete worm, were described from samplings in Mobile Bay, Mississippi sound and the Gulf of Mexico near Dauphin Island, Alabama. Samples were collected between January, 1971 and February, 1975.

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ACC 831; TYPE ; YEAR N/AN
BRENT
PROPOSED OFFSHORE OIL SITE MONITORING.

BIBL UNIVERSITY OF SOUTHERN MISSISSIPPI, HATTIESBURG, MS.

KEYWORD: BOD, carbon, inorganic compound, organic carbon

ABSTRACT: Areas of the continental shelf off the Louisiana coast were sampled quarterly over a period beginning in 1972 and ending in 1974. Organic carbon, inorganic carbon and biochemical oxygen demand were measured at each station. Water samples were taken from within the water column.

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ACC 4227; TYPE P; YEAR 1956
BRETSCHNEIDER, C.L.;
WAVE FORECASTING RELATIONSHIPS FOR THE GULF OF MEXICO.

BIBL CORPS OF ENG., BEACH EROSION BOARD TECH. MEM. 84: 27 PP.

KEYWORD: wind, wave, depth, waveheight, wind stress

ABSTRACT: The development and application of a method for computing wind wave data over the continental shelf along the United States coast of the Gulf of Mexico is described. A set of generalized forecasting curves is required for each location and each direction to bring the waves in over the shallow sloping bottom to the desired depth. Using deep-water forecasting relationships and taking bottom fraction into account, a generalized set of dimensionless forecasting relationships is prepared for each of five locations for which statistical deep-water wave data are compiled. The forecasting curves are intended for the most frequent minimum fetch and corresponding wind speed for various deep-water wave height ranges and average bottom conditions of various directions. For the cases of wind parallel to the coast or from land to sea the curves are applicable to all water depths. However, for the case of winds blowing from sea toward land, tha forecasting relationships are satisfactory only for depths of about 20 feet or greater, although the technique has been stretched to a depth of 12 feet for cases where winds are not too high. At depths of about 20 feet or less the bottom slope changes too rapidly for the theory to apply, and longer period swell will be breaking in the surf zone, thereby obscuring the wind wave pattern.

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ACC 237; TYPE ; YEAR 1973
BRIGGS, J.C.;
FISHES.

IN: J.I. JONES, M.E. RING, M.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL. 7 PP.

KEYWORD: biology, distribution, fish, zoology, zoogeography, continental shelf, continental slope

ABSTRACT: The northern Gulf of Mexico comprises a part of the Carolina Zoogeographic Region. The shelf fauna may be described as warm-temperate rather than tropical. Among the fishes, there is a greater species diversity in the northeastern Gulf than in the northwestern part. In the former, many eurythermic tropical species are found that are possibly ecologically dependent upon the coral-sponge bottom community. On at least one part of the shelf in the vicinity of Sarasota, the offshore fauna below 20 meters has a more tropical facies than that found inshore. Although the continental slope is very poorly known, there are indications that it may harbor an interesting fauna including a number of unique species.

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ACC 893; TYPE ; YEAR N/AG
BRIGHT, T.;
SURVEY OF DEEP SEA BOTTOM FISHES, GULF OF MEXICO.

BIBL TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 218 P.

KEYWORD: depth, demersal fish

ABSTRACT: Deep sea bottom fish obtained through dredging in the Gulf of Mexico are reported. Data available include the identified specimens, location, depth, numbers caught, and morphometric

measurements. Data were collected from June, 1964 to June, 1969.

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ACC 2066; TYPE P; YEAR 1981
BRIGHT, T.J.; JAAP, W.c.; CASHMAN, C.W.;
ECOLOGY AND MANAGEMENT OF CORAL REEFS AND ORGANIC BANKS. IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO, KEY BISCAYNE (FLORIDA), 30 SEPT.-5 OCT. 1979. D.K. ATWOOD (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LABORATORIES, MIAMI. FL. VOL IIB. P. 53-160.

KEYWORD: ecology, coral, reef, stress, management

ABSTRACT: This summary paper provides a detailed description of the Gulf of Mexico reefs and hard bottom patches, reviews existing studies, describes their economic value, details the stresses affecting them, and lists the governmental agencies having justification over them. A list of recommendations for future studies is also presented. An extensive reference list is also provided.

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ACC 4249; TYPE P; YEAR 1981
BRIGHT, T.J.
BIOTIC COMMUNITIES OF HARD-BANKS IN THE NORTHWESTERN GULF OF MEXICO. 6. BIENNIAL INTERNATIONAL ESTUARINE RESEARCH CONFERENCE GLENEDEN BEACH, OR (USA) 1-5 NOV. 1981.

BIBL ESTUARIES 4(3):304.

KEYWORD: coral, reef, community, depth, coralline, algae, algal nodule

ABSTRACT: Seven biotic zones occur on 33 hard-banks on the outer continental shelf, northwestern Gulf of Mexico. High diversity coral reefs (20 to 35 m depth) occur on two banks (East and West Flower Gardens), with 18 species of hermatypic corals covering 50 to 60% of the hard bottom. Montastrea annularis dominates, growing at 7 to 8 mm per yr. Low diversity coral reefs dominated by Stephanocoenia michelini (growth rate approx. 6 mm per yr) occupy 4 banks between 35 and 52 m depth. The largest reef-building community is dominated by crustose coralline algae which form nodules and encrusting hard substration on 13 banks between 46 and 97 m depth. Turbid water envelops the lowermost portions of all banks studied, in some cases limiting the depth to which coralline algae populations predominate.

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ACC 896; TYPE ; YEAR 1958
BROADHEAD, G.C.;
GROWTH OF THE BLACK MULLET (MUGIL CEPHALUS) IN WEST AND NORTHWEST FLORIDA.

BIBL FLORIDA DEPARTMENT OF NATURAL RESOURCES, TECH. SERIES NO. 25. 31 PP.

KEYWORD: mullet, pelagic fish, growth, tagging

ABSTRACT: The growth of the black mullet was studied from 1951 to 1954. Analyses of commercial catches and data from tagging studies gave growth rate information. Principal study areas were Pensacola, Apalachicola, Cedar Key, and Homosassa.

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ACC 234; TYPE ; YEAR 1973
BROOKS, H.K.;
GEOLOGICAL OCEANOGRAPHY.

IN: J.I. JONES, R.E. RING, M.O. RINKEL, AND R.E. SMITH. EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL. P. 491-500.

KEYWORD: geologic history, geology, oceanography, continental shelf

ABSTRACT: The Gulf of Mexico is a Mediterranean-type sea. In the eastern Gulf, the clastic province of the Gulf Coast and the carbonate Florida platform have encroached on this oceanic basin, especially during the cretaceous and early Tertiary. The Mississippi River and its sedimentary province have contributed no clastic sediments to the present Alabama-Mississippi shelf and slope and are not contributing to the Mississippi Fan at this time. Drastic geographic, environmental, and biological changes have occurred in the Gulf during the last 15 to 20 million years, but these are related to changes in world climate, sea-level lowering, and fluctuations. Except for the Greater Antilles, there has been no orogenic activity in the lands bordering the eastern Gulf of Mexico since the Paleozoic. Hypotheses suggesting rifting or foundering of land masses are not substantiated. Evidence proves that this is presently one of the most stable areas of the earth. A thin veneer of sediments, mostly relic, covers the continental shelf. The estuaries and lagoons are sediment traps and are silting rapidly. Little or no sediment from the land is being contributed to beach nourishment. Through erosion and deposition the existing

coastal features are continually being modified to new environmental states.

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ACC 2067; TYPE P; YEAR 1981
BROOKS, J.M.;
SOURCES AND DISTRIBUTIONS OF PETROLEUM HYDROCARBONS IN THE GULF OF MEXICO: SUMMARY OF EXISTING KNOWLEDGE. IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO, KEY BISCAYNE, FL. 30 SEPT.-5 OCT. 1979. D.K. ATWOOD (CONVENER).

BIBL NOAA/ERL ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LABORATORY, MIAMI, FL. VOL IIC:167-209.

KEYWORD: distribution, hydrocarbon, petroleum, biota, sediment

ABSTRACT: This summary paper reviews the state of knowledge on inputs of petroleum hydrocarbons and their distribution in biota and sediments of the Gulf of Mexico. Major multidisciplinary programs involving petroleum hydrocarbons of the Gulf of Mexico are also reviewed. Information needs are identified and future directions are recommended.

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ACC 2501; TYPE P; YEAR 1975
BROOK, I.M.;
SOME ASPECTS OF THE TROPHIC RELATIONSHIPS AMONG THE HIGHER CONSUMERS IN A SEAGRASS COMMUNITY (THALASSIA TESTUDINUM KOENIG) IN CARD SOUND, FLORIDA.

BIBL PH.D. DISSERTATION. UNIVERSITY OF MIAMI, MIAMI, FL. 133 P.

KEYWORD: Dade, seagrass, benthic, polychaete, crustacean, mollusc, fish, primary productivity

ABSTRACT: This study examined the feeding relationships (higher level consumers) of the macrobenthic and cryptic fauna of Card Sound. The area studied had a low biomass of benthic and cryptic fauna (3.35 g dry/sq. meter). The principal interaction between tha primary consumers was via the polychaetes and peracaridean crustaceans. Based on digestive tract examinations, molluscs were not found to be a preferred food for those animals frequenting the study site. The majority of the fishes captured were determined to be foragers over a wide area. It was felt that the predator population was limited by the small stock of polychaetes and peracaridean crustaceans (1.97 g dry/sq.m). The primary productivity of Thalassia in the area was high (3.7 g dry/sq. m/day), but little evidence of grazing or utilization of detritus by higher consumers was found.

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ACC 2502; TYPE P; YEAR 1977
BROOK, I.M.;
TROPHIC RELATIONSHIPS IN A SEAGRASS COMMUNITY (THALASSIA TESTUDINUM) IN CARD SOUND, FLORIDA. FISH DIETS IN RELATION TO MACROBENTHIC AND CRYPTIC FAUNAL ABUNDANCE.

BIBL TRANS. AM. FISH. SOC. 106(3):201-294.

KEYWORD: Dade, fish, polychaete, crustacean, mollusc, benthic, biomass, temperature, salinity, currents, tide

ABSTRACT: The trophic interaction between the fishes and the macrobenthic and cryptic fauna in Card Sound was studied. Based on the digestive tract analysis, the principal interaction between the primary consumers of the study area and the higher torphic level predators was found to be via the polychaetes and peracaridean crustaceans. Molluscs which constituted a significant portion of the benthic biomass were not found to be a preferred food. It was suggested that the predator population was probably limited by the small stock of polychaetes and peracaridean crustaceans. The majority of the fishes captured were determined to be foragers over a wide area.

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ACC 4008; TYPE P; YEAR 1975
BROOKS, J.M.; SACKETT, W.M.,
SOURCES, SINKS, AND CONCENTRATIONS OF LIGHT HYDROCARBONSs IN THE GULF OF MEXICO.

BIBL J. GEOPHYS. RES. 78(24):5248-5258.

KEYWORD: hydrocarbon, petroleum, chemistry, water column, coastal water

ABSTRACT: A survey of the concentrations of light hydrocarbons in the Gulf of Mexico has been made aboard the R.V. Alaminos of Texas A&M University. The hydrocarbon analyzer consists of a modified Beckman process gas chromatograph with a flame ionization detector. For surface profiling, gases are

"stripped" from seawater taken 3 meters below the sea surface by vacuum extraction with a 12-stage booster pump. These gases are injected periodically into the gas stream of the chromatograph for analysis. The system also has the capability of analyzing discrete seawater samples either by the method of McAullife or by the method of Swinnerton and his co-workers. Coastal waters of the Gulf of Mexico are not in equilibrium with the atmosphere insofar as low molecular weight hydrocarbons are concerned, even though methane in most of the open Gulf of Mexico is in fairly close equilibrium with the atmosphere. The coastal waters of the Gulf act both as a source and as a sink for atmosphere methane. The important man-derived sources of methane in the gulf are ports with their associated shipping and industrial activity, offshore petroleum drilling and production operations, and open ocean shipping activity. High light hydrocarbon concentrations have been found in the vicinity of a tanker discharging "clean ballast water." The important natural sources include seepage from oil and gas reservoirs and anaerobic production of methane. The main sink for atmospheric methane in the Gulf of Mexico is in the Yucatan area, where there is major upwelling of deep water with low hydrocarbon concentrations.

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ACC 4187; TYPE P; YEAR 1981
BROOKS, J.M.; WIESENBERG, D.A.; BURKE, R.A., JR.; KENNICUTT, M.C.;
GASEOUS AND VOLATILE HYDROCARBON INPUTS FROM A SUBSURFACE OIL SPILL IN THE GULF OF MEXICO.

BIBL. ENVIRON. SCI. TECHNOL. 15(8):951-959.

KEYWORD: hydrocarbon, oil spill, pollution

ABSTRACT: Not available.

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ACC 4212; TYPE P; YEAR 1978
BROOKS, J.M.; BERNARD, B.B.; SAUER, T.C., JR.; ABEL-REHEIM, H.;
ENVIRONMENTAL ASPECTS OF A WELL BLOWOUT IN THE GULF OF MEXICO.

BIBL. ENVIRON. SCI. TECH. 12(6):695-703.

KEYWORD: suspended, sediment, hydrocarbon, temperature, salinity, dissolved oxygen, pollution

ABSTRACT: Studies were conducted around a well blowout site on the Texas Continental shelf that resulted in the escape of large quantities of gas and creation of a crater 95 m deep and 500 m. wide. Four months after the blowout a plume of suspended sediment and gas continued to exude from the crater at a seep rate of 10 x 10,000,000 L/day. At this time molecular and isotopic analyses of the seeping gas indicated that the gas was principally of biogenic origin (predominantly methane and delta 13C of -60 o/oo) and not accompanied by any brine seepage. The seep gas did, however, contain a small thermocatalytic component as evidenced by the C1/(C2+C3) ratio and its liquid hydrocarbon content (1.23 mg/L). Measurements of gaseous and liquid hydrocarbons dissolved in the water in the vicinity of the seep indicated rapid dilution of the high concentrations observed over the plume. The depth to which sediments were redeposited around the crater was determined by carbon isotope measurements on the carbonate fraction of the sediment. Analysis of hydrocarbons in redeposited sediments indicated that the original blowout gas was of predominantly thermocatalytic origin, containing higher concentrations of C2-C14 hydrocarbons than are presently seeping from the blowout. The impact of the blowout on temperature, salinity, dissolved oxygen, DOC, POC, TSM, helium, C02, SigmaC02, and sulfate in the waters and sediment near the crater is also discussed.

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ACC 4219; TYPE P; YEAR 1977
BROOKS, J.M.; BERNARD, B.B.; SACKETT, W.M.;
INPUT OF LOW-MOLECULAR WEIGHT HYDROCARBONS FROM PETROLEUM OPERATIONS INTO THE GULF OF MEXICO.

BIBL IN: FATE AND EFFECTS OF PETROLEUM HYDROCARBONS IN MARINE ORGANISMS AND ECOSYSTEMS. D.A.WOLFE (ED.) PERGAMMON PRESS. 373-384.

KEYWORD: hydrocarbon, pollution, drilling, oil, offshore platform

ABSTRACT: Dissolved C1 to C14 hydrocarbon patterns measured during the last 6 years in the Gulf of Mexico indicate that underwater venting of waste gases and brine discharges, both associated with offshore platforms, are the major sources of non-methane light hydrocarbons to upper Gulf coastal waters. These sources are apparently responsible for the two orders of magnitude increase in Louisiana Shelf waters over open ocean levels of the light hydrocarbons. Analyses of the hydrocarbons composition of vented gases and brines and estimates of their annual discharge rates indicate that up to 450 metric tons of C5 to C10 hydrocarbons are being added to Louisiana Shelf waters each year.

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ACC 4268; TYPE P; YEAR 1977
BROOKS, J.M.; BERNARD, B.B.; SACKETT, W.M.;
INPUTS OF LOW-MOLECULAR-WEIGHT HYDROCARBONS FROM PETROLEUM OPERATIONS INTO THE GULF OF MEXICO.

BIBL IN: FATE AND EFFECTS OF PETROLEUM HYDROCARBONS IN MARINE ECOSYSTEMS AND ORGANISMS. PROC. SYMP. AT THE OLYMPIC HOTEL, SEATTLE, WA. PERGAMON PRESS, NY.

KEYWORD: hydrocarbon, petroleum, pollution, drilling, oil, offshore platform

ABSTRACT: Dissolved C(SUB-1) to C(SUB-4) hydrocarbon patterns measured during the last 6 years in the Gulf of Mexico indicate that underwater venting of

waste gases and brine discharges, both associated with offshore platforms, are the major sources of non-methane light hydrocarbons to upper Gulf coastal waters. These sources are apparently responsible for the two orders of magnitude increase in Louisiana Shelf waters over open levels of the light hydrocarbons with average concentrations of 3100, 31, and 22 nanoliters per liter of methane, ethane, and propane, respectively. Analyses of the hydrocarbon composition of vented gases and brines and estimates of their annual discharge rates indicate that up to 45 metric tons of C(SUB-5) to C(SUB-10) hydrocarbons are being added to Louisiana Shelf waters each year. Although the C(SUB-1) to C(SUB-4) hydrocarbons per se are apparently not toxic to marine organisms, they nevertheless are proving to be highly sensitive indicators of the more toxic components of petroleum which are being introduced to the sea by man's activities.

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ACC 4270; TYPE ; YEAR 1981
BROOKS, J.M.; ET AL.;
SURFICIAL SEDIMENTS AND SUSPENDED PARTICULATE MATTER. THE BUCCANEER GAS AND OIL FIELD STUDY.

BIBL SYMP. BUCCANEER GAS AND OIL FIELD STUDY, HOUSTON, TX. PLENUM PUBLISHING CORP., NEW YORK. 69-116 P.

KEYWORD: sediment, suspended, water column, pollutant, hydrographic, turbidity

ABSTRACT: This paper reports on surficial sediment and suspended particulate studies undertaken at Buccaneer Field off Galveston between 1978 and 1980. Water column and surficial sediment samples were collected for study as specified. Profiles obtained by transmissometry were typical of the Gulf shelf area, the quantity and composition of the suspended particulates showing large spatial and temporal variations. The composition of suspended particulates varied considerably over the sampling periods. Data indicated that the water column was stratified during all samplings except winter, due to strong turbulent activity. The Buccaneer production platforms did not measurably alter the bulk composition of suspended particulates because of the small volumes displaced by the platforms. Pollutants introduced into the water column were rapidly transported out of the system either by hydrographic conditions or perhaps by attachment to suspended particulates.

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ACC 4308; TYPE P; YEAR 1977
BROOKS, J.M.;
THE FLUX OF LIGHT HYDROCARBONS INTO THE GULF OF MEXICO VIA RUNOFF.

BIBL MAR. POLLUTANT TRANSFER. CHAP. 8: 185-200.

KEYWORD: hydrocarbon, suspended, water column, coastal water

ABSTRACT: Light hydrocarbons in rivers originate from both natural and man-derived sources. The light hydrocarbons discharged into the Gulf of Mexico by rivers have significant impact on the coastal waters. Hydrocarbon anomalies are seen typically from 10 to 30 miles off port and estuaries and as much as 50 miles off the Mississippi River. The light hydrocarbons introduced into the surface layer of the ocean are rapidly lost to the atmosphere. The residence time of methane and other gaseous hydrocarbons in the mixed layer of the ocean is on the order of days. Rivers also have an influence on the light hydrocarbon concentrations in coastal waters because of the suspended material they carry. Some of the organic matter in the suspended material appears to be reduced slowly to methane possibly in micro-reducing environments. This methane formation seems to occur in situ in the water column forming a maximum at some depth in the upper hundred meters in the Mississippi Delta region. As the water in the delta region spreads across the shelf, the methane maximum in the water column may increase as the water moves away from the delta. The extent of methane formation in the methane maximum and the fate of the maximum in the Gulf of Mexico are poorly understood.

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ACC 4319; TYPE P; YEAR 1975
BROOKS, I.H.;
THE FLORIDA CURRENT AT KEY WEST: SUMMER 1972.

BIBL J. MAR. RES. 33(1):833-92.

KEYWORD: currents, temperature, salinity

ABSTRACT: Not available.

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ACC 4328; TYPE P; YEAR 1979
BROOKS, D.A.;
LONG WAVE COUPLING OF THE MID AND SOUTH ATLANTIC BIGHTS FORCED BY THE ATMOSPHERE.

BIBL UNKNOWN. 131 PP.

KEYWORD: tide, wave, wind stress, continental shelf, wind, pressure

ABSTRACT: The eastern United States continental margin profile is relatively uniform throughout the Middle Atlantic, Bight (Hatteras to Gulf of Maine), but in the South Atlantic Bight (Florida Keys to Hatteras) it bifurcates into an inner and outer slope region. Coastal tide gage records indicate that sea level oscillations with periods longer than one week can propagate southward as continental shelf waves in both Bights, thereby providing a coupling mechanism between the Bights. However, several day period motions appear to be confined to the South Atlantic Bight and may result from backscattering of long wave energy by the variable topography and the Gulf Stream. The coastal sea level phase data for the several day period motions is not easily attributable to a monochromatic propagating wave; rather, it appears that wave group properties may lead to a more consistent explanation of the phases. Cross-shelf

and longshelf wind stress components were both strongly coupled to sea level fluctuations for long periods: short period motions were more closely associated with dynamic responses to atmospheric pressure fluctuations.

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ACC 1021; TYPE ; YEAR 1980
BROWN, G.L.; GURSKY, R.; HITLIN, R.A.; HEMPSTEAD, J.D.; HANCUFF, P.;
A SURVEY OF RECREATIONAL SHRIMPERS IN THE BAY AND SOUND SYSTEMS OF THE GULFCOAST.

BIBL GULF STATES MARINE FISHERIES COMMISSION, GULF COAST RESEARCH LABORATORY, OCEAN SPRINGS, MS. 176 PP.

KEYWORD: coastal water, fishery, recreation, shrimp, socioeconomic, statistics, survey

ABSTRACT: A total of 3,866 interviews were conducted in the survey of recreational shrimpers along the Gulf Coast. In Phase I, which covered the brown shrimp season, 925 interviews were conducted. In Phase II, which covered the white shrimp season, 2,941 interviews were conducted. These data were collected and analyzed to describe the effort and catch of recreational shrimpers. Various tables have been developed to present frequencies, means, and/or standard deviations on many variables. The major variables of interest include pounds of shrimp per shrimping trip by species, pounds of shrimp per hour by species, and count per pound of shrimp by species for each state. In some cases, large sample sizes have allowed breakdowns of these data beyond the state level. For example, appendices provide catch data by site of intercept, by date of interview, and by location of catch for the state of Louisiana in Phase II of the survey.

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ACC 2320; TYPE P; YEAR 1983
BROWN, R.; PIERCE, R.; MURPHY, S.;
CHARACTERIZATION OF HYDROCARBONS IN SEDIMENT AND ORGANISMS FROM CHARLOTTE HARBOR ESTUARY.

BIBL FLA. SIC. 46(SUPPL. 1):47.

KEYWORD: Charlotte, hydrocarbon, sediment, shrimp, crab, sea trout, seagrass, mullet, oyster, pollution

ABSTRACT: Sediments and tissues of marine organisms (oyster, shrimp, crab, mullet, and sea trout) from Charlotte Harbor, Florida were analyzed for hydrocarbon concentrations and composition. Most of the sampling sites were found to be relatively free from petroleum contamination. However, certain sites, such as commercial docks, marinas, and residential development canals exhibited evidence of petrochemical input.

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ACC 4009; TYPE P; YEAR 1985
BROWDER, J.A.;
RELATIONSHIP BETWEEN PINK SHRIMP PRODUCTION ON THE TORTUGAS GROUNDS AND WATER FLOW PATTERNS IN THE FLORIDA EVERGLADES.

BIBL BULL. MAR. SCI. 37(3):839-856.

KEYWORD: biology, commercial fishery, hydrology, landings (pounds), pink shrimp, coastal, invertebrate, benthic

ABSTRACT: Regression analysis indicated a relationship between landings of pink shrimp on the Tortugas grounds and freshwater runoff to the estuarine areas of Everglades National Park, as indexed by water levels in the park. A strong positive relationship between quarterly (3-month) landings and the average water level of the previous quarter was found for three quarters of the year. October through December water levels, followed by July through September water levels, may have had the greatest influence on annual landings. An inverse relationship between landings and water levels from April through June was not precluded. Information of this type is needed in order that the freshwater needs of estuarine-dependant marine organisms can be taken into account in water management planning.

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ACC 4010; TYPE P; YEAR 1979
BRUNNER, C.A.;
DISTRIBUTION OF PLANKTONIC FORAMINIFERA IN SURFACE SEDIMENTS OF THE GULF OF MEXICO.

BIBL MICROPALEONTOLOGY 25(3):325-335.

KEYWORD: foraminifera, sediment, biogeography, assemblage, biology, distribution, loop current, salinity, temperature

ABSTRACT: Frequency distribution of planktonic foraminifera from 140 trigger core-tops in the Gulf of Mexico generally reflect major oceanographic features. The distribution of Globigerinoides sacculifer outlines the Loop current in the eastern Gulf and Globigerinoides ruber maxima marks salinity extremes, whereas the distributions of Pulleniatina obliquiloculata, Globorotalia truncatulinoides and Globigerinita glutinata parallel winter isotherms in the Gulf. Q-mode factor analysis was used to extract 5 assemblages from 23 species and compare their distributions in the Gulf to those of the well-studied Atlantic Ocean. The 5 assemblages are interpreted as: 1) subtropical, dominated by G. ruber; 2) temperate, composed of Globorotalia inflata, Globigerina falconensis, Globorotalia truncatulinoides, Globigerina bulloides and Neogloboguadrina dutertrei; 3) dissolution-resistant, consisting of Globorotalis menardii, Pulleniatina obliquiloculata and N. dutertrei; 4) equatorial, composed of G. sacculifer and P. obliquiloculata; and 5) subpolar, consisting of N. dutetrei, G. inflata, Neogloboguadrina pachyderma and G. bulloides. The modern distributions of these assemblages have been used to develop 4

transfer functions from which the winter and summer temperatures and salinities for the Late Quaternary have been estimated.

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ACC 4011; TYPE P; YEAR 1969
BRYANT, W.R.; MEYERHOFF, A.A.; BROWN, N.K., JR.; ET AL.;
ESCARPMENTS, REEF TRENDS, AND DIAPIRIC STRUCTURES, EASTERN GULF OF MEXICO.

BIBL. AM. ASSOC. PETROL. GEOL. BULL. 53(12):2506-2542.

KEYWORD: carbonate, geology, seismic, geophysical, reef, petroleum

ABSTRACT: Dredging, coring, and order profiling of the Florida escarpment southward from 28 degrees 1.5'N, 86 degrees 24'W, to the Florida strait, of Jordan Knoll (23 degrees 20'N, 83 degrees 45'W, in the Florida Strait, and of the Campeche escarpment northeast of Yucatan (23 degrees 39'-23 degrees 45'N, 85 degrees 22'-85 degrees 26'W) have revealed the presence in all three areas of Aptian-Albian reef and forereef which lithologically and paleontologically are nearly identical to the Glen Rose-Stuart City reefs of the U.S Gulf Coast and the El Abra-Golden Lane reefs of eastern Mexico. The late Aptian-Albion reefs--or banks--apparently were not continuous from the Florida escarpment to the Campeche escarpment, but were separated by a deepsea channel which crossed Pinar del Rio Province, western Cuba. Jordan Knoll may have been an Early Cretaceous atoll, isolated from the reefs of Florida escarpment and similar to the Golden Lane atoll of eastern Mexico. A core from Jordan Knoll penetrated a late Pliocene carbonate mud containing abundant angular limestone clasts up to 2.1 cm in diameter. The clasts range in age from late Aptian Albian through middle Miocene to early Pliocene. The source of the clasts is unknown but regional geologic data eliminate a southern source; the clasts most probably were derived from Jordan Knoll itself. The lithology and paleontology of the clasts show that the Jordan Knoll region was a shallow water bank until latest Albian or early Cenomanian time; that the present Florida Strait area deepened steadily from Canomanian through Santonian times; and that, from Santonian time until the present, bathyal...

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ACC 1093; TYPE ; YEAR 1971
BUCK, S.W.;
CHITINOCLASTIC BACTERIA IN COPEPODS.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 80 PP.

KEYWORD: bacteria, microfauna, zooplankton

ABSTRACT: Water and zooplankton samples were collected off the northeast coast of Santa Rosa Island, Florida between June and August, 1970. Bacterial populations were counted in water samples, water samples shaken with copepods, and water samples shaken with crushed copepods in order to demonstrate the presence of chitin utilizing bacteria in association with copepods.

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ACC 2389; TYPE P; YEAR 1983
BUCK, P.A.;
COLONIZATION AND SUCCESSION ON ARTIFICIAL SUBSTRATES IN TWO CANALS ON KEY LARGO.

BIBL PRESENTED AT BENTHIC ECOL. MEET., FLORIDA INSTITUTE OF TECHNOLOGY, MELBOURNE, FL.

KEYWORD: Monroe, structure, substrate, algae, community, assemblage, artificial habitat, fouling

ABSTRACT: The community structure and colonization of 2 artificial substrates (concrete blocks and mangrove peat blocks) placed in 2 canal systems (one cut from limestone rock and other from mangrove peat) on Key Largo, Florida were investigated for one year. The blocks were dominated by algae (primarily Chlorophyta and Rhodophyta) and polychaetes. Comparisons between blocks and sites were made for species richness, abundance, and biomass. Communities on the artificial substrates most closely resembled those on the natural substrate that each was intended to imitate. It was concluded that the community structure of a developing biological assemblage was regulated by the substrate type and composition of the surrounding community.

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ACC 4176; TYPE P; YEAR 1975
BUERKLE, U.;
UNDER WATER NOISE AT AN OFFSHORE DRILLING OPERATION IN THE BAY OF FUNDY.

BIBL CAN. FISH MAR. SERV. TECH. REP. 563:1-13.

KEYWORD: offshore drilling, fishery, stress

ABSTRACT: Not available.

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ACC 1079; TYPE ; YEAR 1956
BULLIS, H.R.;
PRELIMINARY RESULTS OF DEEP-WATER EXPLORATION FOR SHRIMP IN THE GULF OF MEXICO BY THE M\V OREGON (1950-1956).

BIBL COMM. FISH. REV. 18(12):1-17.

KEYWORD: biology, commercial fishery, shrimp fishery, shrimp, species composition

ABSTRACT: Not available.

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ACC 2068; TYPE P; YEAR 1979
BULLOCK, L.H.; SMITH, G.B.;
IMPACT OF WINTER COLD FRONTS UPON SHALLOW-WATER REEF COMMUNITIES OFF WEST-CENTRAL FLORIDA.

BIBL FLA. SCI. 42(3): 169-171.

KEYWORD: community, reef, fish, coral, temperature, storm event, defaunation, stress

ABSTRACT: SCUBA observations of shallow water (12-37 m) reefs in the eastern Gulf of Mexico during the exceptionally cold winters of 1977 and 1978 revealed damage to the reef biota suffered during passage of cold fronts. Some reef fish were kill or injured either directly from the cold or from physical abrasion against the reef during heavy bottom surge. Recovery time of the damaged reefs is unknown, though coral recovery is undoubtedly slow, since most species are living near their northern limits of distribution.

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ACC 2214; TYPE P; YEAR 1959
BULLIS, H.R.; INGLE, R.M.;
A NEW FISHERY FOR SCALLOPS IN WESTERN FLORIDA.

BIBL PROC. GULF CARIBB. FISH. INST. 11TH ANNU. SESS. P. 75-78.

KEYWORD: calico scallop, commercial fishery

ABSTRACT: The initiation of a commercial fishery for the calico scallop, Pecten (Argopecten) gibbus, in the Gulf of Mexico is documented in this paper. The Fish and Wildlife Service exploratory vessel, "Oregon," began active exploration for commercial concentrations of P. gibbus in 1954. Scallops were first harvested by commercial fishermen in March 1958, near St. Andrews Bay. Production values, locations of other scallop beds, and size distributions are summarized.

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ACC 4012; TYPE P; YEAR 1976
BULLIS, H.R., JR.; JONES, A.C., EDS.,
PROCEEDINGS: COLLOQUIUM ON SNAPPER-GROUPER FISHERY RESOURCES OF THE WESTERN CENTRAL ATLANTIC OCEAN.

BIBL FLORIDA SEA GRANT REP. NO. 17. 331 P.

KEYWORD: biology, socioeconomic, commercial fishery, life history, reproduction, recreational fishery, snapper, grouper, landings (pounds), management

ABSTRACT: The purpose of the Colloquium was to assemble information on the snapper and grouper resources in the region and to provide a forum to discuss the problems of the fishing industries. Although these species have supported a major commercial fishery for more than 100 years, a decline in commercial landings became evident after 1965. Concurrently, recreational fishing effort and landings increased rapidly. Commercial landings amounted to 18.3 million pounds in 1974, and recreational fishermen landed an estimated 83 million pounds in 1970. There appears to be increasing fishing pressure on traditional U.S. grounds by other nations as well. Evidence presented in this Colloquium indicates that we now have resource problems in certain regional fisheries and that management is required. At the same time, it is clearly evident that the data base for management is inadequate. The snapper-grouspper resource has withstood commercial exploitation for more than 100 years; however, this fishery has, in recent years, been subjected to increased commercial and recreational prassure--not only by the U.S. interest, but also by increasing numbers of other nations as well. It is also experiencing some environmental changes that may have a profound effect on the ability of this fishery to withstand continued increasing pressure. The Gulf States Marine Fisheries Commission recognizes the importance and necessity for a coordinated management policy to deal effectively with the problems of this resource at the station,, national, and international level. It was the hope and intent of this commission in prompting the Colloquium to encourage a...

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ACC 2503; TYPE P; YEAR 1972
BUNT, J.S.; LEE, C.C.; LEE, E.;
PRIMARY PRODUCTIVITY AND RELATED DATA FROM TROPICAL AND SUBTROPICAL MARINE SEDIMENTS.

BIBL MAR. BIOL. 16(1):28-36.

KEYWORD: Dade, sediment, primary productivity, carbon, organic carbon, nutrient, nitrogen, chlorophyll

ABSTRACT: Oxygen exchange and carbon fixation in calcareous sediments were measured in situ at sites off the east coast of Florida and in the Caribbean Sea. Sediment samples were analyzed for total organic carbon, nitrogen, and photosynthetic pigments, and in some cases, interstitial pH and C02 concentration.

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ACC 351; TYPE ; YEAR 1977
BUREAU OF LAND MANAGEMENT;
DRAFT ENVIRONMENTAL IMPACT STATEMENT, PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE.

BIBL BUREAU OF LAND MANAGEMENT, GULF OF MEXICO OCS REGIONAL OFFICE, NEW ORLEANS, LA. OCS NO. 65. 2 VOLS.

KEYWORD: biology, oceanography, physical process, socioeconomic

ABSTRACT: Not available.

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ACC 598; TYPE ; YEAR 1980
BUREAU OF LAND MANAGEMENT;
FINAL ENVIRONMENTAL IMPACT STATEMENT. PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALES A62 AND 62.

BIBL BUREAU OF LAND MANAGEMENT, GULF OF MEXICO OCS REGIONAL OFFICE, NEW ORLEANS, LA. 116 PP.

KEYWORD: biology, continental shelf, geology, oil, resource

ABSTRACT: Not available.

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ACC 4223; TYPE P; YEAR 1973
BUREAU OF LAND MANAGEMENT;
PROPOSED 1973 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE-SALE, OFFSHORE MISSISSIPPI, ALABAMA, AND FLORIDA. VOLUME 2, POTENTIAL ENVIRONMENTAL IMPACTS, ETC. (ENVIRON. IMPACT STATEMENT).

BIBL AVAILABLE FROM NATIONAL TECH. INFORM. SERV., SPRINGFIELD, VA. 242 P.

KEYWORD: oil, pollution, commercial fishery, oil spill, biology, fishing, water quality

ABSTRACT: This second volume of the Outer Continental Shelf oil and gas general lease sale, offshore Mississippi, Alabama and Florida environmental impact statement is addressed to the probable environmental impacts of the project and potential mitigating measures. The following environmental impacts were considered: impacts on the living components of the environment (open Gulf, marine life, shoreline, estuaries, and wetlands); impacts on air and water quality; impacts on commercial fishing; conflicts with military uses of the continental shelf; conflicts with ship traffic and navigation; and impacts on the recreational, historical, aesthetic and archaeological features of the area. Potential mitigating measures include oil spill regulations, enforcement and contingency action, and construction of protective structures and pipelines. The unavoidable adverse environmental effects of the projects were also described.

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ACC 4224; TYPE P; YEAR 1973
BUREAU OF LAND MANAGEMENT;
PROPOSED 1973 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE, OFFSHORE MISSISSIPPI, ALABAMA AND FLORIDA (FINAL ENVIRONMENTAL IMPACT STATEMENT).

BIBL AVAILABLE FROM THE NATL. TECH. INFORM. SERV., SPRINGFIELD, VA. 327 P.

KEYWORD: oil, pollution, oil spill

ABSTRACT: The project involves a proposed oil and gas lease sale on the Outer Continental Shelf of the Gulf of Mexico. One hundred and forty-seven tracts (817,338 acres) of Outer Continental shelflands are to be included in the leasing action. The tracts are located offshore Mississippi, Alabama, and Florida. All tracts offered pose some degree of pollution risk to the environment and adjacent shoreline. The risk potential is related to adverse effects on the environment and other resource uses which may result from accidental or chronic oil spillate. Each tract offered is subjected to a matrix analytical technique in order to evaluate significant environmental impacts should leasing and subsequent oil and gas exploration and production ensue. The following alternatives to the proposed action were considered: hold the sale in modified form; withdraw the sale; or delay the sale.

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ACC 4225; TYPE P; YEAR 1973
BUREAU OF LAND MANAGEMENT;
PROPOSED 1973 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE, OFFSHORE MISSISSIPPI, ALABAMA AND FLORIDA. VOLUME 5 (FINAL ENVIRONMENTAL STATEMENT).

BIBL AVAILABLE FROM THE NATL. TECH. INFORM. SERV., SPRINGFIELD, VA. 262 P.

KEYWORD: wind, benthic, oil, pollution

ABSTRACT: Volume five of five volumes comprising the final environmental statement for this proposal contains the following attachments to the statement: (A) outer continental shelf operating orders Numbers 1 through 12, Gulf of Mexico; (B) proposed schedule--provisional outer continental shelf leasing; (c) description of blocks by water depth, distance from shore, acreage; (D)report of the work group on outer continental shelf safety and pollution control, U.S. Geological Survey; (E) geological time chart and cross sections through the sale area; (F) windroses portraying monthly wind patterns over the Gulf of Mexico; (G) common names and scientific names for marine benthic animals; (H) population, employment, personal income, and earnings by industry, historical and projected. (I) (Department of Defense) fact sheet summarizing potential impact of possible leasing; (J) matrix appendix; (K) geological survey, outer continental shelf oil and gas operations lease and management program; (L) equipment available for emergency oil spill control and cleanup in the Gulf of Mexico; (M) sample outer continental shelf lease form; (N) list of persons who submitted oral and/or written testimony for public hearing record; plat--depiction of blocks proposed for leasing.

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ACC 4226; TYPE P; YEAR 1973
BUREAU OF LAND MANAGEMENT;
PROPOSED 1973 OUTER CONTINENTAL SHELF OIL AND GAS GENERAL LEASE SALE, OFFSHORE MISSISSIPPI, ALABAMA AND FLORIDA. VOLUME 4 (FINAL ENVIRONMENTAL STATEMENT).

BIBL AVAILABLE FROM THE NAT'L. TECH. INFORM. SERV., SPRINGFIELD, VA. 335 P

KEYWORD: oil, pollution, oil spill

ABSTRACT: This volume is one of five volumes which comprise the final environmental statement for the outer continental shelf (OCS). This section presents an account of the consultation and coordination processes involved in the preparation of tha draft and final statements. All federal and state agency review comments are included, and where appropriate, the disposition of pertinent comments leading to preparation of the final statement are indicated. Also included are public hearing testimony and records, and written comments from private organizations. The major areas of concern expressed by the public were: the veracity of the 'energy crisis'; compatibility of offshore mineral operations with defense activities; the degree of state participation in OCS operations; liability in the event of pollution incidents; the adequacy of operating regulations and enforcement procedures; the need for consideration of alternatives to the proposed action unique to Florida; the need for preparation of cost benefit analyses; and the need for a public referendum concerning whether or not to proceed with the proposal.

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ACC 4282; TYPE P; YEAR 1978
BUREAU OF LAND MANAGEMENT, OUTER CONTINENTAL SHELF OFFICE, NEW ORLEANS, LA;
FINAL ENVIRONMENTAL IMPACT STATEMENT. PROPOSED 1978 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE, OFFSHORE EASTERN GULF OF MEXICO.

IBL BUREAU OF LAND MANAGEMENT, NEW ORLEANS, LA. 246 P.

KEYWORD: continental shelf, oil and gas, MAFLA, oil spill, fishing, benthic, manatee, oyster, fishery, socioeconomic

ABSTRACT: This proposed oil and gas lease is the third sale for the eastern Gulf of Mexico (MAFLA) region. One hundred and sixteen tracts containing 667,229.28 acres (270,023.99 hectares) of OCS lands are proposed for leasing action. If implemented, this sale is tentatively scheduled to be held in October 1978. Development at the following level is expected: 5 to 25 platforms, 45 to 300 wells, 400 to 700 miles of pipeline, 0 to 2 oil terminals, storage areas, and gas processing plants. An oilspill risk analysis was made for 30 resource categories. Also, each proposed lease tract has received a proximity evaluation using a matrix technique to identify significant environmental impacts should leasing and subsequent oil and gas exploration and production ensue. All tracts offered pose some degree of risk to the environment. Accidental or chronic oil spillage is the chief potential cause of impact. Other sources of impact include platform and pipeline installation. The principal adverse impacts that will occur include: some minimal effects on recreational beaches in the Mississippi Sound area, localized effect on recreational and commercial fishing grounds. (particularly oysters) and benthic organisms at sites of development, some potential danger to the habitat of the Florida manatee and unknown but potential effect on archaeological sites. Existing air and water quality onshore will be adversely impacted by operations of gas processing plants, should they be constructed. Beneficial economic impact is anticipated in employment and income with some adverse effect from induced development growth patterns in local areas.

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ACC 2550; TYPE P; YEAR 1978
BUZAS, M.A.;
COMMUNITY UNITY? PATTERNS IN MOLLUSCS AND FORAMINIFERA.

IN: M.L. WILEY (ED.), ESTUARINE INTERACTIONS.

BIBL ACADEMIC PRESS, NEW YORK. P. 173-190.

KEYWORD: mollusc, foraminifera, seagrass, meiofauna

ABSTRACT: Patterns of density of molluscs and foraminifera in seagrass habitats in Jamaica and Link Port, Florida were analyzed for different habitats, periodicity, and effects of predator exclusion cages. Only Florida data is summarized here. Of five species of gastropods analyzed, only one showed a significant difference inside vs. outside the cage, with higher densities inside. The densities of four gastropod species exhibited significant differences with time. The densities of all taxa of foraminifera showed no significant differences between inside and outside the cage, but differed with time. The results suggested that only the cage with 1 mm openings provided an effective enclosure from foraminiferal predators. The results also suggested a slight response of the dominant members of the macro and meiofauna to abiotic and biotic variables.

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ACC 2336; TYPE P. YEAR 1975
BYLE. W.K.;
I-75 NORTH SOUND STUDY.

BIBL REPT. SUBMITTED BY ENVIRONMENTAL SERVICES UNLIMITED.

KEYWORD: Lec, substrate, benthic, distribution, circulation, invertebrate, temperature, salinity, DO, turbidity, currents

ABSTRACT: The biophysical characteristics of the North Sound study area are described. Those portions of the Sound with elevations ranging from -1.2 ft below mean sea level to 3.5 ft below mean sea level and having a fairly firm substrate (as opposed to areas high in silts, clays and/or detritus) were found to support relatively larger populations of benthic organisms than the deeper or shallower areas (regardless of substrate). The distribution and types of species are related to the substrate, which in turn is related to existing water circulation patterns. Most of the North South was determined to be comparatively healthy, physically and biologically.

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ACC 2222; TYPE P: YEAR 1976
BYRNE, C.J.;
THE EFFECTS OF THE WATER SOLUBLE FRACTIONS OF CRUDE AND REFINED OILS ON THE LARVAE OF THE QUAHOG CLAM MERCENARIA SP.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE FL.

KEYWORD: oil, larvae, heavy metal, hydrocarbon, mollusc, bioassay, oil spill

ABSTRACT: Bioassays were conducted to determine the effects of the water soluble fractions (WSF's) of six test oils common to the Gulf of Mexico coastal region on the embryos and veliger larvae of the guahog clam. It was found that the WSF's of the crude oils. The WSF's of the Florida "Jay" crude and the used crankcase motor oil were the most toxic of all the oils tested. However, they possess other toxicants (e.g., heavy metals and sulphus compounds) in addition to the petroleum hydrocarbons. Although the concentrations of petroleum hydrocarbons used were relatively high and were not found in the natural marine environment, it was concluded that, in an oil spill, concentrations could reach these values with possible toxic effects.

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ACC 343; TYPE ; YEAR 1983
CAILLOUET, C.W.; KOI, D.B.;
SIZE COMPOSITION OF MONTHLY CATCHES OF BROWN SHRIMP FROM THE TEXAS COAST, MISSISSIPPI RIVER TO TEXAS, AND PENSACOLA TO THE MISSISSIPPI RIVER, 1960- 1981.

BIBL NATIONAL MARINE FISHERIES SERVICE, BIOLOGICAL LABORATORY, GALVESTON, TX. NOAA-TM-NMFS-SEFC-116. 78 PP.

KEYWORD: biology, coastal water, shrimp fishery, fishery statistics, fishery, population dynamics, brown shrimp, management, recruitment, growth, mortality

ABSTRACT: The report summarizes information concerning the biology and population dynamics of brown shrimp in the context of management of the fishery for this species in the Gulf of Mexico. The size composition of the reported monthly catches of brown shrimp, Penaeus aztecus, reflects the combined effects of recruitment, growth and mortality, including losses due to natural causes and those caused by fishing. Annually recurring recruitment has an obvious effect of reducing the size of brown shrimp in the monthly catches, but the time-phasing of open seasons and the intensity of fishing can also alter the size composition patterns.

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ACC 344; TYPE ; YEAR 1979
CAILLOUET, C.W.; PATELLA, F.J.; JACKSON, W.B.;
RELATIONSHIP BETWEEN MARKETING CATEGORY (COUNT) COMPOSITION AND EX-VESSEL VALUE OF REPORTED ANNUAL CATCHES OF SHRIMP IN THE EASTERN GULF OF MEXICO.

BIBL MAR. FISH. REV. 41(5-6):1-7.

KEYWORD: biology, coastal water, fishery, shrimp fishery, shrimp, pink shrimp, brown shrimp

ABSTRACT: The shrimp fisheries of the eastern Gulf of Mexico are analyzed. They are those of Mississippi, Alabama, and west coast of Florida, and includes pink shrimp, P. duorarum, as well as brown and whitea shrimp. Harvesting strategy refers to the sizes of shrimp harvested, retained, and landed. The relationship between estimated ex-vessel value and weight of reported annual catches of a given species in a given region holds remarkably well over a wide range of fluctuations in reported annual catches. In fisheries, such as shrimp fisheries of the Gulf of Mexico, in which wide fluctuations occur in annual yield in response to fluctuations in recruitment, the best that can be done is to make the best use of whatever recruitment occurs. This lends support to the concept of management of shrimp fisheries by minimum size limits or other approaches which regulate the size of shrimp at first harvest, i.e., closed areas or seasons.

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ACC 2504; TYPE P; YEAR 1971
CAILLOUET, C.W., JR.; BEARDSLEY, G.L.;
NOTES ON SIZE, SEX RATIO, AND SPAWNING OF SPINY LOBSTER, PANULIRUS GUTTATUS (LATREILLE) NEAR MIAMI BEACH, FL.

BIBL BULL. MAR. SCI. 21(4):944-951.

KEYWORD: Dade, spawning, spiny lobster, temperature, salinity, abundance, habitat, distribution

ABSTRACT: Spiny lobsters, Panulirus guttatus, were collected from jetties bordering Government Cut, near Miami Beach, Florida, from June to October 1970. Variations in size distribution, sex ratio, and proportion of ovigerous females were determined. Abundance and habitat of P. guttatus were compared to those of P. argus.

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ACC 4013; TYPE P; YEAR 1981
CAILLOUET, C.W.; KOI, D.B.;
TRENDS IN EX-VESSEL VALUE AND SIZE COMPOSITION OF REPORTED ANNUAL CATCHES OF PINK SHRIMP FROM THE TORTUGAS FISHERY, 1969-1978.

BIBL GULF RES. REP. 7(1):71-78.

KEYWORD: pink shrimp, management, commercial fishery, socioeconomic, crustacea, landings (value), landings (pounds), coastal

ABSTRACT: Exponential models were used to characterize (1) ex-vessel value (in dollars) per shrimp by size category (count; i.e., number of shrimp per pound, heads off), (2) size composition (expressed as cumulative weight of the catch in pounds, heads off, by size category), and (3) ex-vessel value composition (expressed as cumulative ex-vessel value, in dollars, of the catch by size category) for reported annual catches (inshore and offshore combined) of pink shrimp (Penaeus duorarum duorarum) from the Tortugas fishery (statistical areas 1 and 2 combined) from 1960 to 1978. Exponents of the models were used as indices to investigate trends in ex-vessel value per shrimp, in size composition, and in ex-vessel value composition of the annual catches during that period. Both the spread in ex-vessel value per shrimp among size categories and the size of the shrimp in the annual catches increased from 1960 to 1978. Also, the proportion of the ex-vessel value made up of shrimp of larger sizes increased from 1960 to 1978. This approach to analysis of catch statistics can be used to monitor the fishery, and the results can be compared with changes that may be brought about by permanently closing the Tortugas shrimp sanctuary in 1981, as proposed by the Gulf of Mexico Fishery Management Council in the fishery management plan for the shrimp fishery of the Gulf of Mexico.

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ACC 2069; TYPE P; YEAR 1983
CAINE, E.A.;
COMMUNITY INTERACTIONS OF CAPRELLA PENANTIS CRUSTACEA AMPHIPODS ON SEA WHIPS.

BIBL J. CRUSTACEAN BIOL. 3(4):497-504.

KEYWORD: community, crustacea, epifauna, benthic, sea whip, seagrass

ABSTRACT: Caprella penantis is the dominant epifauna on sea whips, Leptogorgia virgulaa, occurring in Thalassia testudinum meadows in northwestern Florida. Caprella penantis densities were 23 times greater in winter when Thalassia dies back and fish predators are absent. The reduced densities may be caused by fish predation but the increases are a result of increased reproductive activity. After several molts the caprellids leave the sea whips to join the benthic macrofaunal community.

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ACC 2070; TYPE P; YEAR 1977
CAIRNS, S.D.;
GUIDE TO THE COMMONER SHALLOW-WATER GORGONIANS (SEA WHIPS, SEA FEATHERS, AND SEA FANS) OF THE GULF OF MEXICO AND THE CARIBBEAN REGION.

BIBL SEA GRANT FIELD GUIDE SERIES NUMBER 6. 74 P.

KEYWORD: gorgonian, sea whip, coelenterate

ABSTRACT: General descriptions of the more common Florida, shallow-water gorgonians (phylum Coelenterata) are provided. This guide covers 27 species (of a total of 170 species of gorgonians known in the West Indian Province) that could be encountered without the use of SCUBA. A key to the identification of species was included.

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ACC 4400; TYPE P; YEAR 1977
CAIRNS, S.D.;
STONY CORALS I. CARYOPHYLLIINA AND DENDROPHYLLIINA (ANTHOZOA: SCLERACTINIA) MEMOIRS OF THE HOURGLASS CRUISES. VOL. I, PART IV.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 27 P.

KEYWORD: coral, continental shelf, scleractinia, biology, invertebrate, epifauna, zoogeography, systematic, hourglass, benthic, ecology

ABSTRACT: Six species of coral belonging to the Sclelractinian suborders CaryopPhylliina and Dendrophylliina were collected during Project Hourglass, including two new species. All species are described, illustrated and accompanied by synonymies. Five of the six species represent new distributional records for the Gulf of Mexico. A list of the 36 ahermatypes known from the Gulf of Mexico is presented. A key is provided

for 32 ahermatypes reported from the eastern Gulf shelf and slope region.

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ACC 1209; TYPE P; YEAR 1975
CAKE, E.W., JR.;
LARVAL AND POSTLARVAL CESTODE PARASITES OF SHALLOW WATER, BENTHIC MOLLUSCS OF THE GULF OF MEXICO FROM THE FLORIDA KEYS TO THE MISSISSIPPI SOUND

BIBL FLA. STATE UNIV. PH.D. THESIS.

KEYWORD: larval, mollusc, distribution, parasite, benthic

ABSTRACT: Twelve species of cestodes were found in 2,470 specimens of benthic molluscs collected from the eastern Gulf of Mexico. Results show than benthic marine molluscs are hosts of many elasmobranch tapeworms. Host specificity was rarely found in these cestode-mollusc associations. Six of the species were found throughout the study area, while the other 6 had limited distribution patterns. The higher infection rates, infection loads, and cestode species diversity occurred in molluscs from shallow sand, mud, and grassflats. This environment serves as nursery grounds for the larval cestodes.

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ACC 238; TYPE ; YEAR 1973
CALDWELL, D.K.; CALDWELL, M.C.;
MARINE MAMMALS OF THE EASTERN GULF OF MEXICO.

IN: J.I. JONES, M.E. RING, M.0. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: MAFLA, mammalia, biology, dolphin, marine, whale, cetacean, manatee, distribution

ABSTRACT: Positive records of marine mammals from the eastern Gulf of Mexico (i.e., Florida, Alabama, and Mississippi) are listed with annotations, and maps are included to show the locations of the records. The species for which there are specific records are Black Right Whale (Balaena glacialis), Minke or Little Piked Whale (Balaenoptera acutorostrata)., Bryde Whale (Balaenoptera edeni), Fin Whale (Balaenoptera phsalus), Humpback Whale (Megaptera novaeangliae), Rough-toothed Dolphin (Steno bredanenis), Atlantic Bottlenosed Dolphin (Tursiops truncatus), Gray Grampus or Risso's Dolphin (Grampus griseus), Longsnouted Dolphin (Stenella longirostris), Bridled Dolphin (Stenella frontalis), Spotted Saddleback Dolphin (Delphinus delphis), Short-finned Pilot Whale or Blackfish (Globicephala macrorhyncha), Killer Whale (Orcinus orca), Sperm Whale (Physeter catodon), Pygmy Sperm Whale (Kogia breviceps), Dwarf Sperm Whale (Kogia simus), Antellean Beaked Whale (Mesoplodon europaeus), Goose-beaked or Cuvier's Beaked Whale (Ziphius cavirostris), Manatee or Sea Cow (Trichechus manatus latirostris), and California Sea Lion (Zalophus californianus). The former presence of the now apparently extinct Caribbean Monk Seal (Monachus tropicalis) within the eastern Gulf is noted. Comments are included on additional Gulf records from outside the study area as they relate to the eastern Gulf. Species recorded from within the Gulf but not yet positively from the eastern Gulf study area are Sei Whale (Balaenoptera borealis), Blue Whale (Balaenoptera musculus)-- it is noted that the records of the Blue Whale from elsewhere in tha Gulf are questionable, Pygmy Kil...

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ACC 781; TYPE ; YEAR 1959
CALDWELL, D.K.;
THE LOGGERHEAD TURTLES OF CAPE ROMAIN, SOUTH CAROLINA.

BIBL FLORIDA STATE MUSEUM BULL. 4(10):319-348.

KEYWORD: reptilia, biology, ecology, life history, species composition, herpetofauna, turtle

ABSTRACT: This work is a synopsis of information concerning studies conducted on the Loggerhead turtle. It draws heavily upon research reported by Baldwin and Lofton (1940). Every attempt was made not to overlap existing published works.

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ACC 889; TYPE ; YEAR 1968
CALDER, J.A.; PARKER, P.L.;
STABLE CARBON ISOTOPE RATIOS AS INDICES OF PETROCHEMICAL POLLUTION OF AQUATIC SYSTEMS.

BIBL ENVIRON. SCIENCE AND TECH. 2;535-539.

KEYWORD: carbon, sediment, pet hydrocarbon, biota

ABSTRACT: Carbon 13/carbon 12 ratio data was collected from 1967 through 1973 on samples of water, bio material and sediment (mostly sediment) from areas of the west Florida shelf to the Mississippi Delta and Texas. Approximately 200 observations were made during that time.

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ACC 1043; TYPE ; YEAR 1979
CALDER, K.L; HADDAD, K.D.;
TRANSMISSOMETRY ON THE EASTERN GULF SHELVES, MAFLA SURVEY 1976-1978.

IN: THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY 1977/1978. COMPENDIUM OF WORK ELEMENT REPORTS. BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, DC. VOL. IIB., 931-989.

KEYWORD: loop current, bottom current, nepheloid layer, MAFLA, turbidity, physical oceanography, suspended, continental shelf, sediment, seasonal variation

ABSTRACT: Water clarity in the eastern Gulf of Mexico increases away from vertical or horizontal interfaces. In the benthic boundary layer it increases with a decrease in turbulent energy (currents, seiches, internal waves, hurricanes) available to act on the bottom. In the surface layer, turbidity was largely related to runoff or biological productivity. Water of a clarify comparable to Sargasso Sea water was measured in the Loop current, which was found at times at the seaward ends of all transects. This water was 50 to 100 times as clear as water found at the northern winter stations in the nepheloid layer. Near-bottom water clarity was affected by non-periodic (Loop Current) and periodic (internal waves, seiches, inertial currents) bottom currents, with nepheloid layers found at times in all regions of the study area. However, the rapidly shoaling, fine sediment-laden shelf off Mobile resulted in nepheloid layers during all sampling seasons. The Loop current is the primary transport mechanism for particles in the study areas. The periodic current phenomena do not result in a net transport unless they are super-imposed upon a current with a net directionality. However, they do provide significant erosional energy to the bottom which, coupled even with a slow (non-eroding) current, could result in a net sediment transport. In the summer and fall when the Loop Current intrudes furthest into the Gulf of Mexico, a net southward transport of outer shelf sediments should result. During the winter, when northerly or northeasterly winds blows in conjunction with seiche activity, a general westward to northwestward transport of sediment...

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ACC 2289; TYPE P; YEAR 1982
CALINSKI, M.D.
THE FUTURE OF LOBSTER FARMING IN FLORIDA.

BIBL FLORIDA SCI. 45 (SUPPL. 1): 31

KEYWORD: Sarasota, spiny lobster, larvae

ABSTRACT: Self-contained prototype nursery habitats designed to attract and culture puerlus stage spiny lobsters, Panulirus argus were successfully tested on a small scale. Data indicate that settled post larvae attain a size in which they can leave the habitat in 3 months, and that 20% survive this period. Requirements and benefits of lobster farming are discussed.

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ACC 2236; TYPE P; YEAR 1973
CAMP, D.K.; OBB, S P.; VAN BREENVELD, J.F.;
OVERGRAZING OF SEAGRASSES BY A REGULAR URCHIN, LYTECHINUS VARIEGATUS.

BIBL BIOSCIENCE 23(1):37-38.

KEYWORD: seagrass, pollution, echinoderm, stress

ABSTRACT: An offshore seagrass bed in the Gulf of Mexico was denuded during the summers of 1970 and 1971 by overgrazing by dense aggregations of the sea urchin, Lytechinus variegatus. The grassbed, composed primarily of Thallassia restudinum, extended southward from Steinhatchee River 26 km to Horseshoe Point and offshore 5.5 to 9.25 km. The urchin concentrations, averaging 636 per sq. meter at the front, damaged approximately 20% of the grassbed, with the most intensive destruction occurring at Pepperfish Keys. Scores of aggregations moved through the grass at an average rate of 1.6 m/week. Sizes o L. variegatus were relatively uniform (mean test diameter - 40.1 mm; s - 4.75), indicating that the population was composed of mainly on year class. No factors were cited as potential reasons for the massive population increase, although organic pollution was not considered responsible. Analysis of remaining Thalassia rhizomes suggest that regrowth of denuded grassbeds will not be rapid.

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ACC 4015; TYPE P; YEAR 1973;
CAMP, D.K.;
STOMAPOD CRUSTACEA. MEMOIRS OF THE HOURGLASS CRUISES. VOL III, PART II.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 100 P.

KEYWORD: crustacea, systematic, distribution, zoogeography, ecology, biology, hourglass, benthic, invertebrate, epifauna, continental shelf

ABSTRACT: Thirteen species of stomatopod crustacean (Lysiosquilla scabricauda, Acanthosquilla biminiensis, Platysquilla horologii, Meiosquilla quadridens, M. schmitti, Squilla grenadensis, S. rugosa. S. daceptrix, S. neglecta, S. empusa, Eurysquilla plumata, Parasquilla coccinea, and Gonodactylus bredini) were captured in a 28 month sampling program at ten stations (6 to 73 m) along two transects on the central west Florida shelf. Variations in morphology and meristics of most species are presented. Post larvae of Acanthosquilla biminiensis, Parasquilla coccinea, and an unidentified squilla species (probably S. deceptrix) are described. Juveniles of Meiosquilla quadridens, M. schmitti, Eurysquilla plumata, Parasquilla coccinea and Gonodactylus bredini are described or compared with adults. An ectocommensal folliculinid protozoan is reported from gills of an Acanthosquilla biminiensis.

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ACC 2007; TYPE P; YEAR 1978
CAPONE, D.G.;
DINITROGEN FIXATION IN SUBTROPICAL SEAGRASS AND MACROALGAL COMMUNITIES.

BIBL PH.D. DISSERTATION. UNIVERSITY OF MIAMI, MIAMI, FL. 93 P

KEYWORD: community, seagrass, macroalgae, benthic, nitrogen, bacteria

ABSTRACT: Nitrogen fixation was studied in seagrass (Thalassia testudinum) meadows and the macroalgae Microdictyon sp. and Laurencia sp. Nitrogen fixation was found to be highly variable both spatially and temporally in the phyllosphere of Thalassia. High rates of nitrogen fixation were correlated with the presence of a heterocystous cyanobacterium, Calothrix sp. Seasonal and diurnal fluctuations were detected in phyllosphere nitrogen fixation. Rizosphere nitrogen fixation was compared with that of the phyllosphere. Nitrogen fixation associated with benthic macroalgae was also mediated by cyanobacteria.

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ACC 4198; TYPE P; YEAR 1985
CAPRI, S.;
DETERMINATION OF LOW-TOXICITY OILS IN DISCHARGES FROM OFFSHORE DRILLING OPERATIONS.

BIBL METODI ANAL. ACQUE 5(1):10-15.

KEYWORD: offshore drilling, hydrocarbon, pollution

ABSTRACT: Not available.

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ACC 4016; TYPE P; YEAR 1985
CARDER, K.L.; STEWARD, R.G ;
A REMOTE-SENSING REFLECTANCE MODEL OF A RED-TIDE DINOFLAGELLATE OFF WEST FLORIDA.

BIBL LIMNOL. OCEANOGR. 30(2):286-298.

KEYWORD: irradiance, phytoplankton, pigment, red tide, numerical model, remote sensing, water column, nutrient, stress

ABSTRACT: A mathematical model that simulates the spectral curves of remote-sensing reflectance of blooms of the red-tide dinoflagellate Ptychodiscus brevis is developed. The model is compared to measurements obtained from a low-flying helicopter for P. brevis populations with chlorophyll-like pigment concentrations from 7 to 77 mg m-3 found in the case 2 waters along the west Florida shelf in October 1983. The model simulates the effects of backscattering from water, phytoplankton, and detritus, and the effects of absorption due to water, phytoplankton, detritus, and yellow dissolved matter ("Gelbstoff") for case 1 and case 2 waters. It can be easily modified to simulate the spectral reflectance of phytoplankton from other pigment color groups. Matching the model spectral curves to measured remote-sensing reflectance curves provides accurate estimates of chlorophyll a plus pheophytin a and also estimates of Gelbstoff and detritus concentrations. Comparison of remote-sensing reflectance data to model reflectance data allows calculation of the quantum efficiency of fluorescence for a given phytoplankton population, which provides a remote measurement of a factor that has been found to increase with the nutrient stress of the population.

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ACC 780; TYPE ; YEAR 1963
CARR, A.F.;
PANSPECIFIC REPRODUCTIVE CONVERGENCE IN LEPIDOCHELYS KEMPI.

BIBL ERGEBNISSE DER BIOLOGIE 26:298-303.

KEYWORD: reptilia, abundance, biology, coastal water, ecology, reproduction, species composition, herpetofauna, turtle

ABSTRACT: Not available.

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ACC 686; TYPE ; YEAR 1983
CARTER, M.T.;
PROBABILITY OF HURRICANE/TROPICAL STORM CONDITIONS: A USERS GUIDE FOR LOCAL DECISION MAKERS.

BIBL NATIONAL CLIMATIC DATA CENTER, ASHEVELLE, NC. 25 PP.

KEYWORD: coastal water, forecasting, hurricane, meteorology, statistical analysis

ABSTRACT: In a growing number of communities along the Atlantic and Gulf coasts, local decision makers must begin initiating protective actions before the National Hurricane Center can confidently issue a Hurricane Warning for their community. In an attempt to provide these decision makers with useful long range forecasts of a hurricane's movement, the National Hurricane Center will issue probabilities that the hurricane will affect any of 44 communities from Brownsville, Texas, to Eastport, Maine. This manual was written to acquaint local decision makers with some of the characteristics of these probabilities and outline some of the ways that they may be used to guide decision making when facing a hurricane threat. While it is hoped that local decision makers find this manual useful in effectively utilizing this new forecast information, it should be remembered that National Weather Service field personnel are available, as always, to answer any questions and to provide specific interpretations of both

the probabilities and the forecast tracks that are issued for any given storm.

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ACC 2351; TYPE P; YEAR 1973
CARTER, M.R.; ET AL.;
ECOSYSTEM ANALYSIS OF THE BIG CYPRESS SWAMP AND ESTUARIES.

BIBL U.S. ENVIRONMENTAL PROTECTION AGENCY, SURVEILLANCE AND ANALYSIS DIVISION. EPA 904/9-74-002. 477 P.

KEYWORD: Collier, sediment, fish, life history, snook, temperature, salinity, nutrient, chemistry, water quality, estuary

ABSTRACT: This study examined natural and disturbed ecosystems in the Big Cypress Swamp and the Ten Thousand Islands. A detailed characterization of the study area was made including background data on chemical quality of water and sediments; pesticide levels in water; sediment; fish and higher animals; and life histories of several freshwater and marina fishes, especially snook. Several detailed studies relating to man-made changes to the environment were conducted including salinity variations in natural versus man-influenced estuaries, and the effects of canals and other drainage on ground and surface waters.

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ACC 2390; TYPE P; YEAR 1978
CARTER, P.W.; MITTERER, R.M.;
AMINO ACID COMPOSITION OF ORGANIC MATTER ASSOCIATED WITH CARBONATE AND NONCARBONATE SEDIMENTS.

BIBL GEOCHIM. COSMOCHIM. ACTA 42:1231-1238.

KEYWORD: Monroe, carbonate, sediment

ABSTRACT: Humic substances from carbonate and noncarbonate sediments are composed of 15-36% amino acids by weight. Carbonate sediments possess humic substances consisting primarily of aspartic and glutomic acid; noncarbonate sediment associated humic acids consist mainly of glycins and alanine. Analyses of amino acids from various molecular weight fractions of humic and fulvic acids are discussed. As partic acid enriched organic matter appears to be selectively absorbed by carbonate surfaces but not by noncarbonates.

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ACC 2041; TYPE P; YEAR 1918
CARY, L.R.;
STUDIES ON ALCYONARIA AT TORTUGAS.

BIBL CARNEGIE INST. WASH. YR. BOOK 16:175-177.

KEYWORD: growth, coral, depth, temperature, stress

ABSTRACT: The growth rate of Alcyonarian corals were measured at Dry Tortugas, Florida. The effects of depth and temperature on growth rate were examined. The upper thermal lethal levels were determined for 13 species and their ecological significance discussed. Oxygen consumption rates were also measured and related to thermal stress.

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ACC 870; TYPE ; YEAR 1978
CAVE, N.R.;
PREDATOR PREY RELATIONSHIPS INVOLVING THE AMERICA OYSTER. CRASSOSTREA VIRGINICA (GMELIN), AND THE BLACK DRUM, PAGONIAS CROMIS (LINNAEUS), IN MISSISSIPPI SOUND.

BIBL MASTER'S THESIS. UNIVERSITY OF SOUTHWESTERN LOUISIANA, HAMMOND, LA. 43 PP

KEYWORD: demersal fishes, oyster, feeding habit, predation

ABSTRACT: The purposes of this investigation were: (1) to observe the exact feeding behavior of captive drum on oysters and faunal associates of oysters; (2) to determine the rate and extent of predation under various experimental and natural conditions; (3) to determine prey selectivity of drum using oysters and invertebrate species normally associated with oysters; and (4) to assess the feasibility of preventing predation under experimental conditions using hatchery reared seed oysters or other bedded stock. This investigation was conducted between 1976 and 1978.

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ACC 2008; TYPE P; YEAR 1975
CHALKER, B.E.;
CALCIFICATION, METABOLISM, AND GROWTH BY THE STAGHORN CORAL, ACROPORA CERVICORNIS (LAMARCK).

BIBL PH.D. DISSERATION, UNIVERSITY OF MIAMI, MIAMI, FL.

KEYWORD: metabolism, growth, coral, reef, light

ABSTRACT: Calcification in the staghorn coral, Acropora cervicornis, was investigated and compared to a Pacific congener, A. formosa. The effects of exogenous glucose, glycerol, and alanine on the calcification rate were determined under light and dark conditions in the presence of the photosynthetic inhibitor DCMU. The

mechanisms of calcification and their kinetics were examined by use of various inhibitors.

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ACC 4208; TYPE P; YEAR 1979
CHAMBERS, J.E.; HEITZ, J.R.; MCCORKLE, F.M.; YARBROUGH, J.D.;
ENZYME ACTIVITIES FOLLOWING CHRONIC EXPOSURE TO CRUDE OIL IN A SIMULATED ECOSYSTEM. II: STRIPED MULLET.

BIBL ENVIRON. RES. 20(1):140-147.

KEYWORD: oil, physiological, oil spill, fish, pollution, baseline study, seasonal, mullet

ABSTRACT: Enzyme activities were investigated in brain, gill, liver, and muscle homogenates from striped mullet which had been exposed to crude oil for 10 months in a simulated estuarina ecosystem. Enzymes assayed included acetylcholinesterase,. alkaline phosphatase, Beta-glucuronidase, glutamic-pyruvic transaminase, lactic dehydrogenase, and malic dehydrogenase. Few seasonal trends in enzyme activities were observed. Altarations in some enzyme activities, particularly acetylcholinesterase, Beta-glucuronidase, and malic dehydrogenase, may have reflected physiological changes in the mullet resulting from stress. In general, there were few chronic alterations in mullet enzyme activities resulting from the oil spill. (See also W80-03541) (Sinha-OEIS)

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ACC 118; TYPE ; YEAR 1982
CHAN, L.H.; HANOR, J.S.;
DISSOLVED BARIUM IN SOME LOUISIANA OFFSHORE WATERS; PROBLEMS IN ESTABLISHING BASELINE VALUES.

BIBL CONTRIB. MAR. SCI. 25:149-159.

KEYWORD: coastal zone, barium, offshore exploration, physical process, water quality, continental shelf, offshore drilling, drilling, drilling fluid

ABSTRACT: Dissolved barium values in samples of Louisiana offshore waters collected during the Gulf Universities Research Consortium--Offshore Ecology Investigation range from 31 to 67 ug/kg in waters of chlorosities of 11 to 19 g/l. The barium values are higher than normal open Gulf of Mexico values (11-12 ug/kg) and are in excess of those reasonably expected from conservative mixing of Mississippi River and Gulf waters. It is possible that some of this excess barium is the result of the discharge of effluents from offshore drilling platforms. Much of it, however, can probably be accounted for by simple desorption of barium from river-borne suspended material during natural processes of estuarine mixing. Additional work is required to quantify the relative contributions of natural and anthropogenic sources of barium.

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ACC 779; TYPE ; YEAR 1975
CHAN, H.S.;
A STUDY OF THE TRANSFER PROCESSES OF PHTHALATE ESTERS TO THE MARINE ENVIRONMENT.
BIBL PH.D DISSERTATION. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 133 PP.

KEYWORD: pesticides, phthalate, sediment, water column, PCB, pollution

ABSTRACT: Sediment and water samples were collected from 34 stations in the Gulf of Mexico, biota samples from 24 stations and air samples from 8 stations between June 1973 and February 1975. Samples were analyzed for DDT, DDE, PCB's and phthalates.

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ACC 2391; TYPE P; YEAR 1969
CHANCE, F.A., JR.;
A NEW GENUS AND FIVE NEW SPECIES OF SHRIMPS (DECAPODA, PALAEMONIDAE, PONTONUAE) FROM THE WESTERN ATLANTIC.

BIBL CRUSTACEANA. 16(PT. 3):251-272.

KEYWORD: Monroe, shrimp

ABSTRACT: Descriptions and measurements of a new genus and 5 new shrimp species found off Florida coasts were presented. The newly described species were Periclimenes crinoidalis, Periclimenes meyeri, Periclimenes paivai, Tulecariocaris neglecta, and Lipke holtuise. Lepkebe was the newly described genus.

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ACC 2392; TYPE P; YEAR 1977
CHAN, E.I.;
OIL POLLUTION AND TROPICAL LITTORAL COMMUNITIES: BIOLOGICAL EFFECTS OF THE 1975 FLORIDA KEYS OIL SPILL.

BIBL AM. PETRO. INST. PUBL. #4284:539-542.

KEYWORD: Monroe, oil, pollution, oil spill, seagrass, mortality, echinoderm, crab, temperature, stress

ABSTRACT: An assessment was made of the biological effects of the 1975 Florida Keys oil spill. Floating seagrass was found to serve as a natural sorbent for oil. The seagrass became stranded in the intertidal zone. A soluble component of oil or possibly an organic cleaning solvent leaching from this debris was determined to be the probable cause of a mass mortality of subtidal echinoderms on the rocky platform. Several crab species were eliminated from the rocky shores, mangrove fringes and Batis marsh communities for several months.

Subtidal pearl oysters suffered extensive mortalities. Death was the result for more than 50% oiling of red mangrove seedling leaves and dwarf black mangrove pneumatophores. Elevated temperatures exceeding the lethal units for many intertidal organisms were observed in oil covered substrates. Oil persisted in the substrate of rocky shores and mangrove marsh areas for at least one year after the spill.

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ACC 4017; TYPE P; YEAR 1976
CHAN, E.I.;
OIL POLLUTION AND TROPICAL LITTORAL COMMUNITIES: BIOLOGICAL EFFECTS OF THE 1975 FLORIDA KEYS OIL SPILL.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 72 P.

KEYWORD: oil spill, pollution, biology, ecology, oil residue, seagrass, reef, intertidal, coastal

ABSTRACT: This study reported observations on the distribution and biological effects of an oil spill in tropical littoral communities of the Florida Keys for a period of six months. Floating seagrasses served as natural sorbents of floating oil and were stranded in the intertidal zone. A soluble component of oil leaching from this debris contributed to a mass mortality of subtidal echinoderms on the rocky platform. Oil penetrated sandy intertidal substrates to a depth of ten centimeters. Formation and erosion of a hard, tarry crust overlying the oil-saturated sand was noted. Several crab species were eliminated from rocky shore, mangrove fringe and Batis marsh communities for several months. Subtidal Pinctada radiata from the grass flat community suffered extensive mortalities attributable to a soluble component of the oil. Rhizophora mangle seedlings of the mangrove fringe and swamp sustaining greater than 50% oiling of their leaves were killed. Dwarf Avicennia nitida with greater than 50% oiling of pneumatophores also perished. Lesser degrees of oil coating resulted in continued growth despite leaf loss and chemical burn scars. Elevated temperatures exceeding upper lethal limits of many intertidal organisms were reported for oil covered substrates. The result of clean-up attempts interfered with damage assessment in the mangrove swamp-Batis marsh. No deleterious effects were observed on the submerged offshore coral reefs.

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ACC 751; TYPE ; YEAR 1977
CHAO, L.N.; MUSICK, J.A.;
LIFE HISTORY, FEEDING HABITS AND FUNCTIONAL MORPHOLOGY OF JUVENILE SCIAENID FISHES IN THE YORK RIVER ESTUARY, VIRGINIA.

BIBL FISH. BULL. 75:657-702.

KEYWORD: biology, ecology, estuary, feeding habit, fish, life history, spawning

ABSTRACT: Four abundant sciaenid fishes, Cynoscion regalis, Bairdiella chrysoura, Micropogonias undulatus, and Leiostomus xanthurus, use York River, Va., as a nursery and adult seasonal feeding ground. In addition, six species of sciaenids, Menticirrhus saxatilis, M. americanus, Sciasnops ocellata, Cynoscion nebulosus, Pogonias cromis, and Larimus fasciatus, are present in the estuary occasionally. Yearling C. regalis were first caught in March or April and young-of-the-year in July or August. Yearling B. chrysoura were first caught in March or April and young-of-the-year in July or August. Juvenile Micropogonias undulatus and Leiostomus xanthurus may be present in the York River all year-round. Young-of-the-year L. xanthurus were first caught in April and M. undulatus were first caught in August. Small M. undulatus (<20 mm TL) were caught from August to June, which may indicate a prolonged spawning season (or a late spawning stock). Emigration to the ocean was found in all the four species during late fall or early winter. Water temperature and dissolved oxygen seemed to be the most important factors in the spatial and temporal distributions of these four species in the York River. Mouth position, dentition, gill rakers, digestive tract, pores and barbels, nares, and body shape of six sciaenid species, Larimus fasciatus, C. regalis, B. chrysoura, M. undulatus, Menticirrhus saxatilis, and Leiostomus xanthurus, were found to be important in locating and ingesting prey in the water column. Stomach contents indicated that the food partitioning of these six species was closely correlated with the species and their prey.

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ACC 2071; TYPE P; YEAR 1974
CHENEY, D.P.; DYER, J.P. III;
DEEP-WATER BENTHIC ALGAE OF THE FLORIDA MIDDLE GROUND.

BIBL MAR. BIOL. 27: 185-190.

KEYWORD: benthic, algae, reef, diversity, seasonality

ABSTRACT: The composition and seasonality of the benthic algae of the Florida Middle Ground (an offshore area of extensive reef outcroppings, 25 to 60 m deep in the eastern Gulf of Mexico) were described. Ninety-one algal species (92 taxa) were obtained, including 6 species newly reported for Florida and the eastern Gulf of Mexico. The flora predominantly tropical with Caribbean affinities. Marked seasonal differences in species diversity and abundance were present. An extensive or well-anchored holdfast system was a common feature of those species which appeared to be perennial.

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ACC 2072; TYPE P; YEAR 1974
CHESSER, S.A.;
SEDIMENTS OF THE WEST FLORIDA SHELF.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: sediment, distribution, carbonate

ABSTRACT: A total of 225 sediment samples from the west Florida shelf were analyzed to determine the distribution of sediment properties. Spatial trends in the distribution of sediment grain size are cited. Sand-sized sediments composed of quartz and carbonate are

predominant. The carbonate fraction was determined to be mainly of biogenic origin.

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ACC 2393; TYPE P; YEAR 1969
CHESHER, R.H.;
CONTRIBUTIONS TO THE BIOLOGY OF MEOMA VENTRICOSA (ECHINOIDEA: SPATANGOIDA)

BIBL. BULL. MAR. SCI. 19(1):72-110.

KEYWORD: Monroe, biology, growth, behavior, reproduction, commensal, substrate, echinoderm, feeding habit, parasite

ABSTRACT: A 2-year study of the biology of the echinoid, Meoma ventricosa was conducted in Florida (Ft. Lauderdale to Key West), the Bahama Islands, Panama and Columbia. The habitat, behavior, food and feeding, growth, reproduction, predators, parasites, commensals, abnormalities, internal anatomy and substrate relations of M. ventricosa were examined.

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ACC 2394; TYPE P; YEAR 1973
CHESHER, R.H. (MARINE RES FOUND., INC., KEY WEST, FL.).
ENVIRONMENTAL ANALYSIS, CANALS AND QUARRIES--LOWER FLORIDA KEYS.

BIBL FOR CHARLEY TOPPINO & SONS, INC., ROCKLAND KEY, FL. 162 P.

KEYWORD: Monroe, stone crab, salinity, turbidity, DO, nutrient, water quality, snapper

ABSTRACT: Water quality and biological community studies were conducted in man made canals and rock quarries in the lower Florida Keys. Fifteen year old dead-end and open-end canals at Summerland Key Cove were found to have excellent water quality and a diverse and abundant marine flora and fauna. The canal system had been utilized by residents for swimming, fishing, and boating. Four year old, 40 ft deep, rock quarries at Rockland Key, bordering shallow grass flats on the Gulf side exhibited a variety of marine fauna including jack, snapper, grunt, angelfish, barracuda, jewfish, Florida lobster, and stone crabs. It was concluded that, in addition to providing the public with substantially valuable construction fill, the rock quarries were a biological improvement in the area, and that damage (siltation) to the marine surroundings from 8 years of calcite mining was not evident.

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ACC 2505; TYPE P; YEAR 1969
CHEUNG, T.S.;
THE ENVIRONMENTAL AND HORMONAL CONTROL OF GROWTH AND REPRODUCTION IN THE ADULT FEMALE STONE CRAB, MENIPPE MERCENARIA (SAY).

BIBL. BIOL. BULL. MAR. BIOL. LAB., WOODS HOLE. 136(3):327-346.

KEYWORD: Dade, stone crab, seasonal, growth, reproduction, temperature, spawning, salinity

ABSTRACT: Female stone crabs were taken from Biscayne Bay, Florida between April 1965 and November 1967 and studied in the laboratory to determine the relationship between hormonal and seasonal changes on growth and reproduction. Results indicate spawning is affected by seasonal temperature and that summer molting may be inhibited by reproductive activity. Destalking experiments showed a cyclic change in the dominance of molting and spawning responses and a transitional period between the two. Postmolt destalking responses showed that spawning and ovarian development may be controlled by different hormones.

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ACC 353; TYPE ; YEAR 1962
CHEW, F.; DRENNAN, K.L.; DEMORON, W.J.;
ON THE TEMPERATURE FIELD EAST OF THE MISSISSIPPI DELTA.

BIBL J. GEOPHYS. RES. 67(1):271.

KEYWORD: loop current, physical process, salinity, temperature, water mass

ABSTRACT: Not available.

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ACC 367; TYPE ; YEAR 1976
CHITTENDEN, M.E.; MCEACHRAN, J.D.;
COMPOSITION, ECOLOGY AND DYNAMICS OF DEMERSAL FISH COMMUNITIES ON THE NORTHWESTERN GULF OF MEXICO CONTINENTAL SHELF, WITH A SIMILAR SYNOPSIS OF THE ENTIRE GULF.

BIBL TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. SG-76-208. 104 P.

KEYWORD: biology, ecology, feeding habit, life history, shrimp, demersal fish, brown shrimp, temperature, biomass, population dynamics

ABSTRACT: Micropogon undulatus and the family Sciaenidae are dominant on white shrimp grounds, while Stenotomus caprinus and the family Sparidae are primarily centered about brown shrimp grounds. The fish fauna are richer and of greater biomass on brown shrimp grounds. Fishes from the white shrimp grounds have a strong affinity for estuary environs, while fishes of the brown shrimp grounds are independent of estuaries. The ichthyofauna assemblage of the Gulf consists of four major demersal fish communities whose distribution is determined by sediment composition, salinity, topographic relief and temperature. Life history and population dynamics are described for each of 15 major fish species. The observations are primarily for off the

Texas Coast and may possibly apply for the northeastern Gulf coast.

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ACC 1080; TYPE ; YEAR 1977
CHITTENDEN, M.E.; MOOORE, D.;
COMPOSITION OF THE ICHTHYOFAUNA INHABITING THE 110-M BATHYMETRIC CONTOUR OF THE GULF OF MEXICO, MISSISSIPPI RIVER TO THE RIO GRANDE.

BIBL NORTHEAST GULF SCI. 1(2):106-114.

KEYWORD: biology, fish, species composition, zoology, depth, distribution

ABSTRACT: Not available.

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ACC 4310; TYPE P; YEAR 1976
CHITTENDEN, M.E., JR.; MCEACHRAN, J.D.;
COMPOSITION, ECOLOGY AND DYNAMICS OF DEMERSAL FISH COMMUNITIES ON THE NORTHWESTERN GULF OF MEXICO CONTINENTAL SHELF, WITH A SIMILAR SYNOPSIS FOR THE ENTIRE GULF.

BIBL REPORT TO NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION. MD. OFC. OF SEA GRANT.

KEYWORD: ecology, demersal fish, communities, continental shelf, shrimp, biomass, population dynamics

ABSTRACT: Two major communities of demersal fishes are found over soft bottom on the continental shelf in the northwestern Gulf of Mexico inshore of the 91-m contour: (1) a white shrimp grounds community located at about 3.5-22 m. and (2) a brown shrimp grounds community located at about 22,091 m. The overall and seasonal compositions of these ichthyofaunas are described and their community ecology is discussed. The faunas of the two shrimp grounds were distinct at the family level except that a zone of faunal overlap occurred at 18-36 m. Relative biomass was much higher on the brown shrimp grounds than on the white shrimp grounds. Life histories and population dynamics are described for 15 species each of which made up 3 percent of the catch on a given shrimp grounds.

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ACC 4170; TYPE P; YEAR 1982
CHOI, D.R.;
COELOBITES REEF CAVITY DWELLERS AS INDICATORS OF ENVIRONMENTAL EFFECTS CAUSED BY OFFSHORE DRILLING.

BIBL BULL. MAR. SCI. 32(4):880-889.

KEYWORD: offshore drilling, reef, drilling mud, cutting, stress, coral, barium, iron

ABSTRACT: The effects of oil-well drilling on coelobite communities (reef cavity dwellers) were evaluated 15 mo. after the coletion of drilling the 2nd well at Matinloc Field, approximately 50 km west of Palawan Island in the Philippines. Drilling discharges (mud and/or cuttings with Fe flakes) were trapped in coral rubble cavities and stained the cavity wall brown. Staining was correlated with affected cavity-dwellers. Discharges accumulated in cavities and tha underside of coral rubble up to a radius of 100 m from the well head. The coelobite community was largely disturbed within 40 m of the well site along north-south and east-west transects in 26 m depths. Minor changes in community structure were detected out to 75-100 m from the well site. The heavily damaged area coincided with the position of the drilling ship, where debris and Fe scraps were observed and drilling mud/cuttings had accumulated. The presence of Ba, clay and Fe flakes in trapped mud in rubble cavities suggested that the drilling mud and cuttings had stained the cavity wall and seriously affected the coelobite community. The visual effect of drilling on bottom surface dwellers (non-cavity dwellers) was less apparent. Coelobites could serve as sensitive indicators of environmental stress.

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ACC 369; TYPE ; YEAR 1975
CHRISTMAS, J.Y.; WALLER, R.S.;
LOCATION AND TIME OF MENHADEN SPAWNING IN THE GULF OF MEXICO.

BIBL GULF COAST RESEARCH LABORATORY, OCEAN SPRINGS, MS. 20 PP.

KEYWORD: biology, commercial fishery, fish larvae, hydrography, salinity, temperature, fish, spawning

ABSTRACT: Not available.

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ACC 434; TYPE ; YEAR 1982
CHRISTMAS, J.Y.; MCBEE, J.T.; WALLER, R.S.; SUTTER, F.C.;
HABITAT SUITABILITY INDEX MODELS: GULF MENHADEN.

BIBL U.S. FISH AND WILDLIFE SERVICES, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS-OBS-82-10-23. 23 PP.

KEYWORD: biology, ecology, fish, management, resource, habitat, life history, model, fishery

ABSTRACT: Not available.

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ACC 768; TYPE ; YEAR 1981
CHRISTMAS, J.Y.; VAN DEVENDER, T.;
PREDICTION OF SHRIMP LANDINGS FROM INVESTIGATIONS ON THE ABUNDANCE OF POSTLARVAL SHRIMP.

BIBL KUWAIT BULLETIN OF MARINE SCIENCE (2):301-310.

KEYWORD: invertebrate, biology, commercial fishery, ecology, life history, shellfish, shrimp fishery, shrimp, larvae

ABSTRACT: This report provides data and methodology on commercial shrimp resource management through the prediction of shrimp abundance. Shrimp post-larvae were sampled in the waters adjacent to Mississippi using plankton sampling gear. Estimates of the following shrimp season were made. Environmental factors known to effect the transition from post-larvae to adult are discussed.

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ACC 47; TYPE ; YEAR 1982
CHUANG, W.S.; SCHROEDER, W.W.; WISEMAN, W.J.;
SUMMER CURRENT OBSERVATIONS OFF THE ALABAMA COAST.

BIBL. CONTRIB. MAR. SCI. 25:121-131.

KEYWORD: coastal zone, continental shelf, currents, hydrography, meteorology, physical process, sea level, wind, circulation

ABSTRACT: Low-frequency current variability on the Alabama shelf is examined from three years (1976, 1978, and 1979) of summer current, sea level, and meteorological records. The analysis shows that the shelf water response to local wind forcing is frequency dependent; alongshore current and sea level are driven by the alongshore wind at time scales longer than a week, but they are generally not correlated at shorter periods. Since the mean wind varies between the three study seasons, a permanent summer circulation pattern does not exist. The variations in frequency response also indicate that circulation is strongly affected by the wind duration, density stratification, and coastal geometry.

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ACC 773; TYPE ; YEAR 1919
CHURCHILL, E.P.;
LIFE HISTORY OF THE BLUE CRAB.

BIBL BULL. BUR. FISH. 361(870):95-128.

KEYWORD: decapod, invertebrate, biology, commercial fishery, ecology, life history, reproduction, blue crab, distribution, spawning

ABSTRACT: This report discusses the life history of the blue crab, Callinectes sapidus. Habitat and distribution, morphological development, molting, general habits, sexual reproduction, winter habits, autotomy mating, spawning experiments and number of batches of eggs laid are discussed.

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ACC 426; TYPE ; YEAR 1982
CLAPP, R.B.; BANKS, R.C.; MORGAN-JACOBS, D.; HOFFMAN, W.A.;
MARINE BIRDS OF THE SOUTHEASTERN GULF OF MEXICO. PART 1. GAVIIFORMES THROUGH PELECANIFORMES.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, DC. FWS-OBS-82-01. 637 P.

KEYWORD: aves, biology, exploration, industry, life history, oil, bibliography, bird, species composition

ABSTRACT: Not available.

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ACC 427; TYPE ; YEAR 1982
CLAPP, R.B.; MORGAN-JACOBS, D.; BANKS, R.C.;
MARINE BIRDS OF THE SOUTHEASTERN UNITED STATES AND GULF OF MEXICO. PART 2 ANSERIFORMES.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS-OBS-82-20. 491 PP.

KEYWORD: aves, exploration, life history, oil industry, oil, species composition, bird, bibliography

ABSTRACT: Not available.

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ACC 428; TYPE ; YEAR 1983
CLAPP, R.B.; MORGAN-JACOBS, D.; BANKS, R.C.;
MARINE BIRDS OF THE SOUTHEASTERN UNITED STATES AND GULF OF MEXICO. PART 3 CHARADRIIFORMES.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, DC. FWS-OBS-83-30. 850 P.

KEYWORD: aves, biology, exploration, industry, life history, oil, bibliography, bird, species composition

ABSTRACT: Not available.

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ACC 435; TYPE ; YEAR 1981
CLARKE, D.G.; HORSTMANN, H.L.;
FEEDING HABITS AND FOOD OF THE FISHES OF MISSISSIPPI SOUND AND ADJACENT COASTAL AREAS; A BIBLIOGRAPHY WITH ABSTRACTS.

BIBL U.S. ARMY CORPS OF ENGINEERS, WATERWAYS EXPERIMENT STATION, VICKSBURG, MS. MISCELLANEOUS PAPER EL-81-11.

KEYWORD: bibliography, biology, feeding habit, fish

ABSTRACT: Not available.

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ACC 821; TYPE : YEAR UNKN
CLARKE, D.:
UNKNOWN.

BIBL PH.D. DISSERTATION. 110 P.

KEYWORD: demersal fish, salinity, temperature, feeding habit, length, weight, behavior

ABSTRACT: The freckled blenny, Hypsoblennius ionthas, was studied over a three year period at Dauphin Island, Alabama. Fish were identified, measured, weighed and examined for stomach contents. Temperature and salinity data at time of capture were taken. Trophic studies of niche width and overlap were examined. Laboratory experiments were conducted to determine the effects of population density and food abundance. Effects of sexual behavior and social dominance were observed.

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ACC 2290; TYPE P; YEAR 1980
CLARKE, A.R;
CONTRIBUTIONS TO THE LIFE HISTORIES OF SEVERAL SHRIMPS FROM TWO STATIONS IN SARASOTA BAY.

BIBL BACHELOR'S THESIS. NEW COLLEGE OF THE UNIVERSITY OF SOUTH FLORIDA, TAMPA. FL.

KEYWORD: Sarasota, seagrass, distribution, abundance, shrimp, temperature, salinity, DO, pink shrimp

ABSTRACT: Monthly trawls on two seagrass (Thalassia testudnum) flats in Sarasota Bay, Florida yielded 7,192 shrimps, representing 17 species. Six species (Penaeus duorarum, Periclinenues longicaudatus, Hippolyte sp., Tozeuna crolinense, Ambidexter symmetricus, Palaemonetes pugio) comprised 97.5% of the total catch. Information on the distribution, abundance, and seasonal characteristics of the shrimp populations is presented.

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ACC 261; TYPE : YEAR 1968
CLOOS, E.;
EXPERIMENTAL ANALYSIS, ANALYSIS OF GULF COAST FRACTURE PATTERNS.

BIBL AM. ASSOC. PET. GEOL. BULL. 52:420-444.

KEYWORD: model, fault, geologic structure, geology

ABSTRACT: Not available.

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ACC 926; TYPE ; YEAR 1977
COASTAL ENVIRONMENTS INC.;
CULTURAL RESOURCES EVALUATION OF THE NORTHERN GULF OF MEXICO CONTINENTAL SHELF. VOLUME I. PREHISTORIC CULTURAL RESOURCE POTENTIAL.

BIBL NATIONAL PARK SERVICE, OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION, INTERAGENCY ARCHAEOLOGICAL SERVICES, WASHINGTON, DC. 361 P.

KEYWORD: continental shelf, resource, distribution, geomorphology

ABSTRACT: This is a study of the predictability of drowned prehistoric habitation sites in the continental shelf area, northern Gulf of Mexico, from the Rio Grande River to the Florida Keys. Because of the difficulties of obtaining data concerning the location of a submerged site, an indirect approach was formulated incorporating the limitations of the detection devices that are available. A method is presented of forming hypotheses about the nature of the archeological possibilities of the OCS--hypotheses that can be tested with the limited sort of data that can presently be gathered from the OCS. The method is this-- the OCS will be divided into Eastern, Central, and Western Gulf areas, corresponding to the adjacent areas on land. The archeological literature of the land areas will be reviewed to identify major cultural manifestations, by time and by type. These can be predicted to have occurred similarly on the OCS in the time periods when and where it was exposed concurrently. These cultural manifestations are examined for the purpose of making tables of index artifacts, environmental-use models, and particularly landforms favored for habitation sites. Then, addressing the problem of increasing one's chances in site prospecting in the OCS: the landforms (detectable, as relicts) that are most frequently favored at any period are assigned a list of "signatures"--discrete site indicators that are capable of being detected by the limited sensing tools and techniques available for OCS survey. An inventory is made of the known sites in the Northern

Gulf area that were occupied from 55,000 B.P. to 3,500 B.P. Typical sites from three...

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ACC 927; TYPE ; YEAR 1977
COASTAL ENVIRONMENTS INC.;
CULTURAL RESOURCES EVALUATION OF THE NORTHERN GULF OF MEXICO CONTINENTAL SHELF. VOLUME II. HISTORICAL CULTURAL RESOURCES.

BIBL NATIONAL PARK SERVICE, OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION, INTERAGENCY ARCHAEOLOGICAL SERVICES, WASHINGTON, DC. 171 P.

KEYWORD: continental shelf, resource, distribution, shipwreck

ABSTRACT: A study of the occurrence of shipwrecks and related artifacts was conducted for the continental shelf area, northern Gulf of Mexico, from the Rio Grande River to the Florida Keys. The period of consideration extended from 1500 A.D. through 1945 A.D. Published and unpublished reports of losses and locations of known wrecks were utilized along with charts and maps. From this data, a listing of 1,904 reported losses and/or known wrecks was compiled, with a basic data sheet for each wreck. It is estimated that the total number of significant wrecks in the study area is between 2,500 and 3,000. Of the total shipwreck population, approximately 70 percent date from the 19th and 20th centuries. The remaining 30 percent, the wrecks from the 16th, 17th, and some from the 18th century, offer data which, unlike the information from more recent wrecks, may be unavailable from any other source. It is estimated that approximately two-thirds of the total number of wrecks in the northern Gulf are within 1.5 kilometers of the coast. Another 500 wrecks probably lie between the 1.5-kilometer and 10-kilometer line. For the most part, wrecks are associated with approaches to seaports, straits, shoals, or reefs and along well established sailing routes. Current techniques employed in subaqueous cultural resource surveys are discussed and evaluated. These include remote-sensing tools such as magnetometers, side-scan sonars, and sub-bottom profilers. Recommendations for intensity of survey effort in the study area are made in a companion map volume. Zones are identified based on probability of culture resource occurrence, and intensity of survey...

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ACC 2073; TYPE P; YEAR 1971
COBB, S.P.;
BIOLOGY OF THE ROCK SHRIMP SICYONIA BREVIROSTRIS.

BIBL MASTER'S THESIS. UNIVERSITY OF SOUTH FLORIDA, TAMPA, FL.

KEYWORD: biology, rock shrimp, hourglass, hydrographic, development, spawning, mollusc, decapod, crustacean

ABSTRACT: Rock shrimp were collected and studied during Project Hourglass, along the West Florida continental shelf. The distribution of Sicyonia brevirostris was found to be related to the substratum and hydrographic properties with the greatest abundance at the 37 m stations. The greatest population density occurred from July through November, with fluctuation all year. Tha reproductive biology of S. brevirostris was examined, and information on ovarian development, spawning, size at first sexual maturity, and sex ratio were reported. S. brevirostris was found to feed primarily on molluscs and decapod crustaceans and may be considered a generalized carnivore. The feeding activity appeared to be nocturnal occurring throughout the year. No economically important concentrations of S. brevirostris were located in the study area.

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ACC 2074; TYPE P; YEAR 1973
COBB, S.P.; FUTCH, C.R.; & CAMP, D.K.;
THE ROCK SHRIMP, SICYONIA BREVIROSTRIS, STIMPSON, 1871 (DECAPODA: PENAEIDAE). MEM. HOURGLASS CRUISES.

BIBL FLA. DEPT. NAT. RESOURCES MAR. RESEARCH LAB. III(1):38.

KEYWORD: rock shrimp, development, spawning, recruitment, distribution, substrate, hydrographic, temperature, salinity, turbidity

ABSTRACT: An ecological analysis of rock shrimp collected in the Eastern Gulf of Mexico was conducted and existing knowledge of the species was synthesized. A total of 973 rock shrimp were weighed, measured, sexed and examined for morphological variation. Ovarian development, spawning, recruitment, sex ratio and size at first sexual maturity were determined. The distribution was found to be related to substrate and hydrographic properties, and the greatest abundance was found at 37m stations. The population density fluctuates seasonally, being greatest from July through November. Sicyonia brevirostris was found to feed primarily on molluscs and crustaceans nocturnally throughout the year.

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ACC 592; TYPE ; YEAR 1981
COLEMAN, J.M.; PRIOR, D.B.;
DELTAIC ENVIRONMENTS OF DEPOSITION.

BIBL AM. ASSOC. PETRO. GEOL. BULL. 65:139-177.

KEYWORD: coastal water, deposition, geology, sediment facies, sediment structure, sedimentation, sediment

ABSTRACT: Delta environments have a wide variety of individual depositional facies within the overall delta sequence. This complexity results from the following factors: (a) modern deltas exist in a wide range of geographic settings, ranging in climatic regimes from arctic to temperate to tropical to arid, with basin tectonics ranging from rather stable basins to extremely

active subsiding basins; (b) deltas form primarily in the zone of interaction between freshwater and marine processes, one of the most complex process settings in all coastal environments; (c) deltas carry large volumes of sediment, ranging in grain size from gravel to clay, and deposit these sediments both overbank and into tha marine environment through distributory channels; (d) rapid rates of deposition often result in formation of extremely weak foundations. with a wide variety of mass movement processes resulting in complex redistribution of the deltaic sediment. Thus sand bodies within deltas display a variety of geometries and vertical-sequence characteristics. The complexity of environmental settings under which deltas exist results in a variety of vertical sequences that can form within the delta facies. Delta types range from river dominated to tide dominated and wave-current dominated (Coleman, 1976). From the standpoint of petroleum accumulation, however, river- and tide-dominated deltas are probably the most important. In these two delta settings, reservoir-quality rocks are often deposited in close proximity to potential source beds. contemporaneous structures which form major trapping potentials in common, and most deltas exist in rapidly subsid...

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ACC 899; TYPE : YEAR N/AE
COLE, T.J.;
OSMATIC AND IONIC REGULATORY ABILITIES OF UCA MINAX IN Relation TO ITS ECOLOGY.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 95 PP.

KEYWORD: Florida, Governor's Bayou, Pensacola, Thompson's Bayou, air temperature, benthic fauna, calcium, chlorine compounds, magnesium, potassium, sediment texture, sed

ABSTRACT: The osmotic and ionic regulatory abilities of the fiddler crab Uca minax were studied in relation to their ecology. Field and laboratory concentrations of Na, K, Mg, Ca and Cl were measured in external water and the internal blood serum levels of Uca minax under various temperature and salinity regimes.

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ACC 789; TYPE ; YEAR 1973
COLLARD, S.B.; D'ASARO, C.N.;
BENTHIC INVERTEBRATES OF THE EASTERN GULF OF MEXICO.

IN: J.I. JONES, R.E. RING, M.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: benthic fauna, biology, benthic community, , ecology, taxonomy, community structure, invertebrate, zoogeography

ABSTRACT: Present knowledge of the biology and zoogeography of benthic invertebrat sin the Gulf of Mexico is substantially greater than it was two decades ago, (as summarized in monographs edited by Hedgepeth, 1953; Galtsoff, 1954. Since then, however, no comprehensive a counts of eastern Gulf benthos have been published, and the extensive literature remains widely scattered. The present account briefly summarizes the major scientific contributions of the past twenty years in benthic invertebrate studies in the eastern Gulf. Emphasis has been placed on the major non-commercial macroinvertebrate taxa since these groups are best known and are frequently diagnostic of faunal areas and community structure. Wide ranging commercially important forms such as penaeid species and Callinectes sapidus are reviewed elsewhere in this report.

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ACC 4018; TYPE P; YEAR 1984
COLLINS, L.A.; FINUCANE, J.H.;
ICHTHYOPLANKTON SURVEY, ESTUARINE AND INSHORE WATERS OF THE FLORIDA EVERGLADES, MAY 1971 TO FEBRUARY 1971.

BIBL NOAA TECH. REP. NMFS 6:1-75.

KEYWORD: biology, coastal, fish, ichtyoplankton, redfish, recruitment, sea trout, zooplankton, spawning area, fish egg, larvae

ABSTRACT: Quarterly ichthyoplankton sampling was conducted at 16 estuarine and 24 inshore stations along the Florida Everglades from May 1971 to February 1972. The area is one of the most pristine along the Florida coast. The survey provided the first comprehensive information on seasonal occurrence, abundance (under 10 sq. meters of surface area), and distribution of fish eggs and larvae in this area. A total of 209,462 fish eggs and 78,865 larvae was collected. Eggs were identified only as fish eggs, but among the larvae, 37 families, 47 genera, and 37 species were identified. Abundance of eggs and larvae and diversity of larvae were greatest in the inshore zone. The 10 most abundant fish families which together made up 90.7% of all larvae from the study area were, in descending order of abundance: Clupeidae, Engraulidae, Gobiidae, Sciaenidae, Carangidae, Pomadasyidae, Cynoglassidae, Gerreidae, Triglidae, and Soleidae. Clupedae, Engraulidae, and Gobiidae made up 59.9% of all larvae. The inshore zone (to a depth of about 10 m) was a spawning ground and nursery for many fishes important to fisheries. The catch of small larvae (less than or equal to 3.5 mm SL) indicated that most fishes identified from the 10 most abundant families spawned throughout the inshore zone at depths of less than or equal to 10 m, but Orthopristis chrysoptera, Gerreidae and Prionotus spp. spawned at depths of greater than or equal to 10 m, with offshore to inshore (eastward) larval transport. Salinity was one of several environmental factors that probably limited the numbers of eggs and larvae in the estuarine zone. Abundance of eggs and larv...

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ACC 2009; TYPE P; YEAR 1960
COMMERCIAL FISHERIES REVIEW;
CALICO SCALLOP FISHERY IN FLORIDA.

BIBL COMM. FISH. REV. 22(12):41-43.

KEYWORD: fishery, calico scallop, fishing gear, biology, mollusc

ABSTRACT: The early development of the calico scallop fishery in Florida is discussed, including location of scallop beds, catch rates, and fishing gear and methods. The most extensive beds are located in 1960 off the east coast from Daytona Beach to Ft. Pierce in 60 to 192 feet of water. Other beds were found off Cape San Blas on the west coast in 1957. The initiation of research on the biology of the calico scallop, Pecten (Argopecten) gibbus, at the Bureau of Commercial Fisheries Gulf Breeze Biological Laboratory is noted.

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ACC 833; TYPE ; YEAR 1976
CONKLIN, P.J.;
THE SIGNIFICANCE OF MICROALGAE IN THE ESTUARINE SYSTEM.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 70 PP.

KEYWORD: ammonia, carbon, dissolved oxygen, inorganic compound, light intensity, nitrate, orthophosphate, algae, primary productivity, estuary

ABSTRACT: Various environmental factors were correlated with primary productivity according to size of the primary producers. Photosynthetic rates were measured by C14 uptake of samples divided into size fractions of above 20 microns, 10 20 microns, and .45 10 microns in an effort to describe the significance of micro algae in the estuarine systems. The study was conducted from December 1974 to September 1975.

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ACC 4167; TYPE P; YEAR 1984
CONKLIN, P.J.; RANGA, R.K.;
COMPARATIVE TOXICITY OF OFFSHORE AND OIL-ADDED DRILLING MUDS TO LARVAE OF THE GRASS SHRIMP PALAEMONETES INTERMEDIUS.

BIBL ARCH. ENVIRON. CONTAM. TOXICOL. 13(6):685-690.

KEYWORD: drilling mud, shrimp, physiology, crustacean, pathology, bioassay, drilling fluid

ABSTRACT: Offshore drilling fluids (muds) varied widely in their toxicity to grass shrimp (P. intermedius) larvae. The 96 h LC50 for the 11 drilling muds ranged from 142-> 100,000 ppm (mu l/l). There was a significant correlation between oil content of the drilling muds and their toxicity. Addition of diesel oil (No. 2 fuel oil) or mineral oil to offshore drilling mud having a low oil content or to oil-free synthetic drilling mud led to a marked increase in the toxicity of these muds. Much of the toxicity of the offshore drilling muds was attributed to the oil content.

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ACC 2258; TYPE P; YEAR 1977
CONNER, W.;
RESPONSE OF A SOFT BOTTOM ECOSYSTEM TO PHYSICAL PERTURBATION.

BIBL PH.D. DISSERTATION. UNIVERSITY OF SOUTH FLORIDA, TAMPA, FL.

KEYWORD: invertebrate, biomass, sediment, infauna, dredging, stress

ABSTRACT: To evaluate the effects of shell dredging on a soft bottom ecosystem, both dredged and undisturbed control arsas were intensively sampled. The immediate biological effects of dredging were reductions in number of species, densities of invertebrates, and biomass. One year after dredging there was essentially no difference between control and experimental areas in sediment type, densities of invertebrates, species composition, or biomass.

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ACC 2259; TYPE P; YEAR 1979
CONNER, W.G.; SIMON, J.L.;
THE EFFECTS OF OYSTER SHELL DREDGING ON AN ESTUARINE BENTHIC COMMUNITY.

BIBL ESTUAR. COAST. MAR. SCI. 9:749-758.

KEYWORD: benthic, community, infauna, invertebrate, biomass, sediment, dredging, stress, estuary

ABSTRACT: The extent and nature of the effects on the benthos of physical disruptions associated with dredging fossil oyster shell was described. Two dredged areas and one undisturbed control area in Tampa Bay, Florida were quantitatively sampled before dredging and for one year after dredging. The immediate effects of dredging on the soft-bottom community were reductions in numbers of species (40% loss), densities of macroinfauna (65% loss), and total biomass of invertebrates (90% loss). During months 6-12 after dredging, the data (Mann-Whitney U Test, ac-0.05) showed no difference between dredged and control areas in number of species, densities or biomass (with one exception). Community overlap (Czeckanowski's coefficient) between dredged and control areas was reduced directly after dredging, but after 6 months the predredging level of similarity was regained.

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ACC 2291; TYPE P: YEAR 1974
CONNERS, E.;
THE EFFECTS OF A DOMESTIC SEWAGE OUTFALL ON THE DISTRIBUTION AND ABUNDANCE OF MARINE BENTHIC POLYCHAETA AND MOLLUSCA, WITH COMMENTS ON CONTINUA AND COMMUNITY STRUCTURE.

BIBL SENIOR THESIS, NEW COLLEGE OF UNIVERSITY OF SOUTH FLORIDA, TAMPA, FL. 58 P.

KEYWORD: Sarasota, polychaete, mollusc, sediment, assemblage, temperature, salinity, DO, water quality, pollution

ABSTRACT: The differences existing in the composition of shallow water marine benthic polychaete and mollucsan faunas between areas in the vicinity of an outfall of secondary treated domestic sewage and areas beyond the peripheral zone of enrichment were assessed. Fewer species, lower diversities, and dominance by deposit feeders was observed near the sewage outfall. No direct changes in the particle size distribution or organic content of the sediments was attributable to the sewage outfall. The structure of the benthic faunas revealed that there were no functional assemblages of organisms, only statistical nodes abstracted from continuous distributions of individual species.

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ACC 2321; TYPE P; YEAR 1972
CONNEL ASSOCIATES, INC.
ENVIRONMENTAL ASSESSMENT STUDY, PUNTA GORDA AREA.

BIBL PROJECT 1079. PREPARED FOR PUNTA GORDA ISLES, INC. PUNTA GORDA, FLORIDA.

KEYWORD: Charlotte, physical, chemical, biological, model, diversity, benthic, temperature, salinity, DO, turbidity, nutrient

ABSTRACT: A comprehensive survey was conducted to assess the physical, chemical, and biological aspects of Punta Gorda Isles canal system and surrounding area. The dynamic behavior of the canals was determined through a combination of field measurements and computer mathematical modeling. It was concluded that lack of mixing and flshing are not serious problems within the canal system. Chemical characteristics were determined in the canal system and adjacent waters were determined. Biological studies consisted of microbiological measurements, plankton studies, larvae studies, and benthic studies. Large quantities of bacteria were found in the harbor and canal system. These were believed to be derived from overflows of the nearby municipal sewage system. Low diversity indices of the benthos for the harbor were found. A table of benthic animals found at 4 stations was provided.

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ACC 141; TYPE; YEAR 1981
CONTINENTAL SHELF ASSOCIATES, INC.;
PRE-DRILLING SITE SPECIFIC BENTHIC SURVEY WITHIN STATE OF ALABAMA OIL AND GAS LEASE TRACT 112.

BIBL CONTINENTAL SHELF ASSOCIATES, INC., TEQUESTA, FL. 51 PP.

KEYWORD: benthic community, biology, continental shelf, survey, epibota, abundance, distribution

ABSTRACT: The purpose of this survey was to document the general abundance and distribution of the benthic epibiota (plants and animals living on the sediment), benthic macroinfauna (animals living within the sediment), and fishes in the vicinity (330 meters) of a proposed drillsite within State of Alabama Oil and Gas Tract 112. Due to the fact that the specific drillsite area had not previously been biologically sampled, it was important to document whether any unique or significant biological assemblages were present. The avifauna of the Alabama coastal region is also described within this report from the available literature and personal communications. In addition, projected impacts on resident and migrant bird species attributed to offshore exploratory oil and gas operations are discussed.

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ACC 704; TYPE; YEAR 1982
CONTINENTAL SHELF ASSOCIATES, INC.;
STUDY OF THE EFFECT OF OIL AND GAS ACTIVITIES ON REEF FISH POPULATIONS IN THE GULF OF MEXICO OCS AREA. EXECUTIVE SUMMARY.

BIBL CONTINENTAL SHELF ASSOCIATES, INC., TEQUESTA, FL. 14 PP.

KEYWORD: artificial reef, biology, coastal water, drilling rig, fishery

ABSTRACT: Not available.

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ACC 2075; TYPE U; YEAR 1980
CONTINENTAL SHELF ASSOCIATES, INC.;
LIVE BOTTOM SURVEY, CHARLOTTE HARBOR BLOCKS 144 AND 145.

BIBL UNPUBL. TECHNICAL REPORT, CONTINENTAL SHELF ASSOCIATES, TEQUESTA, FL.

KEYWORD: live bottom, photodocumentation, substrate, epibiota, survey, remote sensing

ABSTRACT: A live (hard) bottom site clearance survey of two oil and gas lease blocks in the eastern Gulf of Mexico was conducted using videotape and still photographic documentation of the substrate and epibiota.

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ACC 2076; TYPE U; YEAR 1980
CONTINENTAL SHELF ASSOCIATES, INC.;
LIVE BOTTOM SURVEY OF CHARLOTTE HARBOR BLOCKS 188 AND 231.

BIBL UNPUBL. TECHNICAL REPORT, CONTINENTAL SHELF ASSOCIATES, TEQUESTA, FL.

KEYWORD: live bottom, substrate, epibiota, survey, photodocumentation, remote sensing

ABSTRACT: Two oil and gas lease blocks in the eastern Gulf of Mexico were surveyed before drilling. Representative samples of the live (hard) bottom biota were collected, and television and still camera surveys of the substrate and epibiota were documented.

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ACC 2077; TYPE U; YEAR 1981
CONTINENTAL SHELF ASSOCIATES, INC.;
PRE- AND POST-EXPLORATORY DRILLING LIVE BOTTOM BIOLOGICAL ASSESSMENT, CHARLOTTE HARBOR AREA, BLOCK 144, LEASE OCS-G-3906. WELL NO. 1.

BIBL UNPUBL. TECHNICAL REPORT, CONTINENTAL SHELF ASSOCIATES, TEQUESTA, FL.

KEYWORD: live bottom, drilling mud, photodocumentation, remote sensing, stress, survey

ABSTRACT: Underwater television and still camera surveys of a live bottom area surrounding a drill site in the eastern Gulf of Mexico were conducted before and after drilling operations. This environmental assessment was necessary to satisfy USGS environmental stipulations for bulk drilling mud discharges.

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ACC 2078; TYPE U; YEAR 1981
CONTINENTAL SHELF ASSOCIATES, INC.;
GROUND TRUTH SURVEY OF CHARLOTTE HARBOR BLOCK 715.

BIBL PREPARED FOR JOHN CHANCE & ASSOC. UNPUBL. TECHNICAL REPORT, CONTINENTAL SHELF ASSOCIATES, TEQUESTA, FL.

KEYWORD: side scan sonar, photodocumentation, remote sensing, survey

ABSTRACT: An underwater television and still camera survey was conducted near a proposed drill site in Charlotte Harbor Block 715 off tha Florida west coast to ground truth certain side scan sonar signatures previously detected during a geographical survey for shallow hazards.

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ACC 2079; TYPE U; YEAR 1981
CONTINENTAL SHELF ASSOCIATES, INC.;
SURVEY OF POTENTIAL LIVE BOTTOM AREAS, VERNON AREA BLOCK 654; LIVE BOTTOM SURVEY THE ELBOW BLOW 915; SURVEY OF POTENTIAL LIVE BOTTOM AREAS IN THE ELBOW BLOCKS 565 AND 566 OFF THE WEST COAST OF FLORIDA; AND SURVEY OF POTENTIAL LIVE BOTTOM AREAS IN TARPON SPRINGS BLOCK 277 OFF THE WESTERN COAST OF FLORIDA.

BIBL UNPUBL. TECHNICAL REPORT, CONTINENTAL SHELF ASSOCIATES, TEQUESTA, FL.

KEYWORD: live bottom, substrate, epibiota, photodocumentation, remote sensing, survey

ABSTRACT: Site clearance surveys of five oil and gas lease blocks in the eastern Gulf of Mexico were conducted. The live (hard) bottom substrate and its

epibota were documented by underwater television and still camera, biological sample collection and analyses.

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ACC 2080; TYPE U; YEAR 1981
CONTINENTAL SHELF ASSOCIATES, INC.;
SURVEY OF POTENTIAL LIVE BOTTOM AREAS IN DESTINDOME BLOCKS 562 AND 563 OFF THE WESTERN COAST OF FLORIDA.

BIBL UNPUBL. TECHNICAL REPORT, CONTINENTAL SHELF ASSOCIATES, TEQUESTA, FL.

KEYWORD: live bottom, substrate, epibiota, biological, chemical, photodocumentation, remote sensing

ABSTRACT: A live (hard) bottom site clearance survey of two oil and gas lease blocks in the eastern Gulf of Mexico was conducted using underwater television and still photographic documentation of the substrate and eibiota. In addition, biological specimens were collected and chemical parameters were measured.

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ACC 2395; TYPE P; YEAR 1982
CONTINENTAL SHELF ASSOCIATES, INC.;
FINAL REPORT ON SEAGRASS REVEGETATION STUDIES IN MONROE COUNTY.

BIBL

KEYWORD: Monroe, seagrass, physical, chemical

ABSTRACT: A two year study of experimental seagrass revegetation was conduced to examine the feasibility of transplanting seagrass beds damaged or destroyed during construction of 37 bridges in the Florida Keys. Twenty plots of seagrasses consisting of Thalassia testudinum, Halodule wrightii, and Syringodium filiforme were transplanted and monitored along with various physical and chemical parameters. Plugs of one or more of the three species were found to successfully establish seagrass beds.

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ACC 4019; TYPE P; YEAR 1985
CONTINENTAL SHELF ASSOCIATES, INC.;
SOUTHWEST FLORIDA SHELF REGIONAL BIOLOGICAL COMMUNITIES SURVEY MARINE HABITAT ATLAS.

BIBL PREPARED FOR THE U.S. DEPARTMENT OF INTERIOR, MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGION, METAIRIE, LA. CONT. #14-12-001-29036. 2 VOL.

KEYWORD: biology, benthic, bathymetry, continental shelf, epibiota, geophysical, side scan sonar, baseline study, habitat, SWFLA, geology

ABSTRACT: As part of a third year of environmental baseline studies of the southwest Florida shelf funded by the Minerals Management Service, broad-scale mapping of benthic habitats was conducted. An Atlas was produced to supplement one produced earlier. During earlier studies, habitat had been mapped along five east-west transects extending from 20 to 200 m and one north-south transect in a water depth of 80 to 130 m. During the Year 3 study, three of the east-west transects were extended inshore of the 20-m isobath and six north-south transects were added: one in 10 to 20 m depth, four in approximately 50 m depth, and one in 100 to 170 m depth. In addition, a unique area along one of the previously surveyed transacts was surveyed again. Mapping was conducted using a combination of geophysical equipment (side-scan sonar, subbottom profiler, precision fathometer) and remote photographic instrumentation (black-and-white television camera and color 35-mm still camera both mounted on a towed sled). Substrates and geological features were delineated through interpretation of videotapes, photographs, and geophysical records. Benthic habitats were categorized on the basis of conspicuous epibiota seen in the videotapes and photographs. Results were compiled into a two-volume Marine Habitat Atlas. Volume I contains 23 maps at a scale of 1:48,000 and several index maps at a scale of 1:50,000. Volume II contains descriptions of methodology and a brief discussion of the results.

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ACC 4020; TYPE P; YEAR 1985
CONTINENTAL SHELF ASSOCIATES, INC.;
AN ANALYSIS OF UNDERWATER VIDEOTAPE AND STILL PHOTOGRAPHIC DATA FROM CHARLOTTE HARBOR AREA BLOCKS 622, 623, 667, AND 711.

BIBL A REPORT FOR SHELL OFFSHORE INC., NEW ORLEANS, LA. 32 P

KEYWORD: live bottom, benthic, biology, epibiota, photodocumentation

ABSTRACT: Videotapes and still photographs from a live-bottom photodocumentation survey of four lease blocks in the Charlotte Harbor Area were reviewed and interpreted. Three bottom types were recognized: sand bottom, rock outcrops, and coralline algal nodule bottom. Areas of coralline algal nodule bottom were mapped and categorized as high, medium, or low in density. The incidence of coralline algal nodule bottom was 176% in Block 622, 94% in Block 623, and 100% in Blocks 677 and 711. The epibiota was similar to that previously described for nearby areas surveyed during the MMS Southwest Florida Shelf Ecosystem Study.

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ACC 4021; TYPE P; YEAR 1983
CONTINENTAL SHELF ASSOCIATES, INC.;
LIVE BOTTOM SURVEY, AREA OF POTENTIAL DRILLSITE LOCATIONS IN CHARLOTTE HARBOR AREA BLOCK 887 OFF THE WEST COAST OF FLORIDA.

BIBL A REPORT FOR SHELL OFFSHORE INC., NEW ORLEANS, LA. 36 P.

KEYWORD: live bottom, invertebrate, demersal fish, biology, benthic, epibiota, photodocumentation

ABSTRACT: In accordance with MMS stipulations for anticipated exploratory drilling in offshore oil and gas lease blocks, a photodocumentation survey was conducted in Charlotte Harbor Area Block 887 off the southwest coast of Florida. The survey included dredge and trawl sampling and remote photography using a towed underwater television and still camera system. Water depth in the area was 65 to 70 m, and the substratum consisted of a veneer of rubble-strewn sand overlying hard bottom. The thickness of the sand veneer ranged from less than 1 m to 10 m (average 2.5 m). Dredge and trawl sampling resulted in the collection of 140 species, including 39 species of crustaceans, 21 of sponges, and 20 of algae. The dominant biota in terms of percent cover was the green alga Codium isthmocladum; total biotic cover was estimated at 35.1% and Codium cover was 24.8%.

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ACC 4022; TYPE P; YEAR 1985
CONTINENTAL SHELF ASSOCIATES, INC.;
LIVE-BOTTOM SURVEY OF PULLEY RIDGE AREA BLOCKS 629, 630, 716, 760, AND 761

BIBL A REPORT FOR UNION OIL COMPANY OF CALIFORNIA, HOUSTON, TX. 61 P.

KEYWORD: live bottom, biology, epibiota, invertebrate, benthic, photodocumentation, survey, remote sensing

ABSTRACT: In accordance with MMS stipulations for anticipated exploratory drilling in offshore oil and gas lease blocks, a photodocumentation survey was conducted in and around Pulley Ridge Area Blocks 629, 630, 716, 760, and 761. The survey involved dredge sampling and remote photography using an underwater television and still camera system that was towed along numerous transects (1,370 km total length). Water depth in the blocks surveyed was 65 to 75 m. The substrate was predominantly coarse sand and rubble. The percent occurrence of areas characterized as live bottom was 75% of the total transect length surveyed in Blocks 629 and 630 and 90% of th transect length surveyed in Blocks 716, 760 and 761; however, biotic cover within areas identified as live bottom averaged only 6.2%. Algae and sponges were the main constituents of total biotic cover. Two hundred ninety-seven taxa were collected in twenty dredge samples, with crustaceans, molluscs, and bryozoans contributing the largest proportion of the total.

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ACC 4251; TYPE P; YEAR 1982
CONTINENTAL SHELF ASSOCIATES, INC., TEQUESTA, FL.(USA)
STUDY OF THE EFFECT OF OIL AND GAS ACTIVITIES ON REEF FISH POPULATIONS IN THE GULF OF MEXICO OCS AREA. VOLUME 1.

BIBL 217 PP.

KEYWORD: oil and gas, reef, fish, population, live bottom

ABSTRACT: The primary purposes of this study were: (1) to collect quantitative data for comparison of reef fish populations associated with natural hard bottom areas and offshore oil and gas structures and (2) to develop fish population sampling methods which can be applied in deep areas that exclude or limit direct observations. The study was designed as a three-phase effort with each phase having specific objectives: (1) Phase I--evaluation of potential study sites (2) Phase II--evaluation of equipment and methods and (3) Phase III--generation and evaluation of standing stock estimates for fish species. The study area was the northern Gulf of Mexico outer continental shelf (OCS) between 90 and 94 degrees W longitude and the 18 and 200-m isobaths. There are numerous hard bottom areas described as "natural reefs" within this area.

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ACC 2081; TYPE P; YEAR 1978
COOKSEY, K.E.; PAUL, J.H.;
ATP DETERMINATION IN THE MAFLA TRACT. 1977-1978.

IN: MAFLA FINAL REPORT (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL STUDY 1977/1978).

BIBL DAMES AND MOORE, INC. FOR BUREAU OF LAND MANAGEMENT CONTRACT #AA550-CT7-34. II(11):608-625.

KEYWORD: hydrographic, sediment, carbonate, organic carbon, ATP, seasonality, MAFLA, grain size

ABSTRACT: Three seasonal variations in sediment ATP levels were found in the MAFLA area. These variations correspond to three distinct geographic areas and to hydrographic and sediment calcium carbonate date for the araas. No correlation was found for ATP and sediment size or total organic carbon.

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ACC 4023; TYPE P; YEAR 1973
COOPER, G.A.;
BRACHIOPODS (RECENT). MEMOIRS OF THE HOURGLASS CRUISES. VOL. III. PART II.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 17 P.

KEYWORD: biology, benthic, systematic, morphology, distribution, hourglass, ecology, invertebrate

ABSTRACT: Brachiopods collected during Project Hourglass consist on an inarticulate, Glottidia pyramidata (Stimpson), and an aberrant articulare, Platidia, new species. The well known Glottidia is discussed only briefly. Muscle arrangement in the Platidia is like that of Megerlia in which adjustor muscles are well developed but diductors are reduced. To open its valves, the Platidia must lift itself on its pedicle. The muscle arrangement that facilitates this and the opening of the valves is explained.

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ACC 4327; TYPE P; YEAR 1982
COPPER, C.;
SOUTHWEST FLORIDA SHELF CIRCULATION MODEL. VOL. 1.

BIBL FINAL REPORT MINERALS MANAGEMENT SERVICE, METAIRIE, LA. NO. MMS-GM-PT-83-001. 336 P.

KEYWORD: circulation, pollutant, drilling, continental shelf, model, meteorology, loop current

ABSTRACT: This report summarizes an 18-month study funded by the Minerals Management Service. Motivation for the study arose from the service's intention to grant leases for oil exploration, and the need to estimate the probable destination of water-borne pollutants originating from drilling and for predicting seasonal water circulation on the southwest continental shelf. Because of modeling considerations, the study area was expanded to include the contiguous West Florida Shelf (WFS) extending from the Florida Keys in the south to Apalachicola in the north and the 200 m isobath to the west.

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ACC 225; TYPE; YEAR 1973
CORCORAN, E.F.;
CHEMICAL OCEANOGRAPHY.

IN: J.I. JONES, R.E. RING, M.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY,. ST. PETERSBURG, FL.

KEYWORD: continental shelf, currents, chemical oceanography, dissolved oxygen, estuary, nutrient, loop current, trace metal

ABSTRACT: A review of the chemical investigations made on the waters of the eastern Gulf of Mexico indicates that most studies have been concerned with water mass characterization, structure of the Loop Current, and nutrient distribution. The parameters measured in these studies were primarily salinity, temperature, dissolved oxygen, and inorganic phosphates. More recent research has added the investigation of suspended material, dissolved and particulate carbon, and certain trace metals. Further study of nutrients and trace metal distribution is needed. This report includes materials on chemical data for the estuarine and nearshore environments, including extensive tables on water quality and constituents in the major bays and estuaries.

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ACC 2010; TYPE P; YEAR 1970
COSTELLO, T.J.; ALLEN, D.M.;
SYNOPSIS OF BIOLOGICAL DATA ON THE PINK SHRIMP, PENAEUS DUORARUM.

BIBL FAO FISH. REPT. 57:1499-1537.

KEYWORD: pink shrimp, distribution, population dynamics, fishery, , crustacean, life history, shrimp fishery

ABSTRACT: This synopsis on the pink shrimp, Penaeus duorarum, summarizes all available information concerning its taxonomy, distribution, life history and population dynamics. The shrimp fishery, management methods, and shrimp aquaculture are also discussed in detail. An extensive reference section is included.

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ACC 2337; TYPE P; YEAR 1966
COSTELLO, T.J.; ALLEN, D.M.;
MIGRATIONS AND GEOGRAPHIC DISTRIBUTION OF PINK SHRIMP, PENAEUS DUORARUM, OF THE TORTUGAS AND SANIBEL GROUNDS, FLORIDA

BIBL FISH. BULL. 65(2):449-459

KEYWORD: migration, geographic, distribution, pink shrimp, decapod, zoogeography, tagging

ABSTRACT: To study shrimp stocks from Sanibel Island and the Dry Tortugas, 15 mark-recovery experiments in which biological stains were used as the marking agent were conducted. The timing and distribution of shrimp migrations from nursery areas to offshore grounds were determined. The estuarine nursery grounds included Florida Bay and estuaries extending at least as far north as, Indian Key on the southwest coast of Florida for the Tortugas shrimp, and from Indian Key north to Pine Island Sound for Sanibel shrimp. The geographic ranges of the Tortugas and Sanibel pink shrimp stocks overlapped in the nursery areas near Indian Key, and in the offshore bottom water between the two trawling grounds. The geographic distributions depicted were suggested to be conservative.

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ACC 2338; TYPE P; YEAR 1968
COSTELLO, T.J.; ALLEN, D.M.;
MORTALITY RATES IN POPULATIONS OF PINK SHRIMP, PENAEUS DUORARUM, ON THE SANIBEL AND TORTUGAS GROUNDS, FLORIDA.

BIBL U.S. FISH AND WILDLIFE SERVICE, FISH BULL. 66:491-502.

KEYWORD: mortality, pink shrimp, shrimp fishery, fishery

ABSTRACT: Estimates of fishing and natural mortalities were obtained from work-recovery experiments on Penaeus duorarum on the sanibel and Tortugas grounds. In the Sanibel population there was a 6.8% fishing mortality and 14.8% loss from other causes. In the tortugas population fishing mortality was 13.1% and all other losses were 19.9%. Assumptions used in statistical analyses and validity of estimates are discussed.

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ACC 2352; TYPE P; YEAR 1975
COURTNEY, C.M.;
MANGROVE AND SEAWALL OYSTER COMMUNITIES, MARCO ISLAND, FLORIDA.

BIBL PAPER PRESENTED AT WESTERN SOCIETY OF MALACOL--AM. MALACOL. UNION JOINT MEETING, JUNE 22-26, 1975.

KEYWORD: Collier, community, physical, chemical, invertebrate, mollusc, oyster, distribution

ABSTRACT: Mangrove and seawall oyster community studies indicated that oysters settle on seawalls in numbers equal to their natural system counterparts, the mangrove prop root oysters. A large majority of other oyster community inhabitants found man-made systems conducive to their development and survival. A multitude of factors (physical and chemical tolerances, tidal flushing rates, climatology, etc.) accounted for the presence or absence of particular species. Clumped distributions were the rule rather than the exception.

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ACC 2082; TYPE U; YEAR 1977
CREEZE, M.R.; MATURO, F.J.;
MEIOFAUNA OF THE MAFLA AREA (1975-76).

BIBL UNPUBL. REPORT SUBMITTED TO THE U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, WASHINGTON, DC. 19 P.

KEYWORD: meiofauna, diversity, temperature, salinity, sediment, dissolved oxygen, MAFLA

ABSTRACT: This report presents the results of the meiofauna study of the Bureau of Land Management sponsored program in the Mississippi, Alabama, Florida (MAFLA) outer continental shelf. The authors summarize the results as follows: The results of this study, so far as analysis has been possible, show an abundant nematode and copepod fauna, with densities comparable with the few values previously reported. Presumably, the nematodes will be quite diverse, with the most abundant ten species making up about 50% of the assemblage. Perhaps one third as many species of copepods would be expected. The next most abundant groups are the Turbellaria and Gastarotricha, although Kinorhynchia may be more common in muds. We have found about 200 species of turbellarians in the MAFLA areas. Although samples have been a little too small to adequately sample the turbellarian assemblage for diversity measures, characteristic groups have been found. Furthermore, grouping of species into more easily recognized taxonomic units has proven valuable. Gastrotrich genera and some "minor" taxonomic groups also offer promise of helping to characterize sediments with several "cross referencing" indicator groups allowing

a sensitive biological indicator of environmental conditions.

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ACC 4024; TYPE P; YEAR 1970
CROLEY, E.C.; DAWES, C.J.;
ECOLOGY OF THE ALGAE OF A FLORIDA KEY. I. A PRELIMINARY CHECKLIST' ZONATION, AND SEASONALITY.

BIBL BULL MAR. SCI. 20(1):165-185.

KEYWORD: biology, benthic, epiflora, ecology, distribution, live bottom, seasonality, coastal, algae

ABSTRACT: The marine algae of the Content Keys, Monro County, Florida, were studied in the field and laboratory for 2 1/2 years. Environmental and floristic data are presented in a descriptive account of the zonation, seasonality, and periodicity of the littoral and sublittoral algae. Tha preliminary checklist comprises 258 taxa: 79 Chlorophyta, 29 Phaeophyta, and 150 Rhodophyta. Four taxa of Chlorophyta and 10 of Rhodophyta are new records for Florida coasts.

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ACC 2083; TYPE P; YEAR 1981
CROUT, R.;
SEDIMENT INFLUX INTO THE GULF OF MEXICO--A REVIEW.

IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO. KEY BISCAYNE, FL. 30 SEPT.-5 OCT. 1979. D.K. ATWOOD (CONVENER)

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LABORATORY, MIAMI, FL. VOL. IIC:1-32.

KEYWORD: sediment, suspended

ABSTRACT: This summary paper reviews the state of knowledge on sediment influx, suspended particulates, transport of sediments, bottom material and the processes that affect Gulf of Mexico sediments. Description of sediments is divided into nine regions in the Gulf of Mexico including the west Florida shelf and the eastern Gulf shelf.

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ACC 341; TYPE; YEAR 1976
CROZIER, G.F.; BROWN, L.R.; DEAN, D.M.; JONES, E.E.; MCILWAIN, T.D.; SHIPP, R.L.
DEVELOPMENT OF ARTIFICIAL REEFS.

BIBL IN: J.E. SEWARD, ED. 1975 ANNUAL REPORT -- MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM. MASG-Q-76-001.

KEYWORD: benthic fauna, demersal fish, light attenuation, pelagic fish, salinity, sediment texture, artificial reef, artificial habitat, water temperature

ABSTRACT: The faunal development of 3 artificial reefs (Wallace, Sparkman, and Allen) off the Alabama coast is being monitored in an effort to describe the factors that influence reef colonization, development and survival.

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ACC 4025; TYPE P; YEAR 1982
CULVER, S.J.; BUZAS, M.A.;
RECENT BENTHIC FORAMINIFERAL PROVINCES BETWEEN NEWFOUNDLAND AND YUCATAN.

BIBL GEOL. SOC. AM. BULL. 93:269-277.

KEYWORD: benthic, biology, foraminifera, systematic, biogeography, distribution, continental shelf, zoogeography

ABSTRACT: In 219 papers published over 130 years, 1,241 species of recent benthic foraminifera were recorded from 968 localities on the Atlantic continental margin of North America and in the Gulf of Mexico. On the Atlantic continental margin, 876 species were recorded and in the Gulf of Mexico, 848; 483 species (39% of 1,241) occur in both areas. On the Atlantic continental margin, 149 species occur at 4% or more of 542 localities, and in the Gulf of Mexico 295 species occur at 4% or more of 426 localities; 71 of these species (19% of 373) commonly occur in both areas. These comparisons show that the two areas differ fundamentally in faunal composition. Cluster analysis of presence or absence distributional data (live and dead foraminifera) delimited seven large provinces on the Atlantic continental margin and four provinces in the Gulf of Mexico. Atlantic continental margin: (a) Northern Coastal Province, (b) Northern Shelf Province, (c) Northern Slope and Rise Province, (e) Southern Shelf Province, (f) Southern Slope Province, (g) Bahaman Province. Gulf of Mexico: (a) coastal Province, (b) Inner Shelf Province, (c) Outer Shelf Province, (d) Slope and Abyssal Plain Province. Bottom-water mass and provincial patterns show good spatial correlation on the Atlantic continental margin and in the Gulf of Mexico.

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ACC 2042; TYPE P; YEAR 1961
CUMMINGS, W.C.;
MATURATION AND SPAWNING OF THE PINK SHRIMP. P. DUORARUM.

BIBL TRANS. AM. FISH. SOC. 90:462-468.

KEYWORD: life history, pink shrimp, spawning, temperature, crustacean

ABSTRACT: Life history parameters of the pink shrimp, Penaeus duorarun, were measured monthly in a year-long study on the Tortugas shrimping grounds. Four stages of female maturation were described using ovum size frequency, gross observation, and ratio of gonad weight to tail weight. Size at first sexual maturity, duration of spawning activity, and spawning frequency were determined. Spawning activity is believed to be closely correlated with annual temperature fluctuations.

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ACC 354; TYPE; YEAR 1959
CURL, H.;
THE HYDROGRAPHY OF THE INSHORE GULF OF MEXICO.

BIBL PUBL. INST. MAR. SCI., UNIV. TEX. 6:193-205.

KEYWORD: coastal water, hydrography, physical process, salinity, temperature, physical oceanography

ABSTRACT: Not available.

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ACC 976; TYPE; YEAR 1971
CUSTODI, G.L.;
A SURVEY OF MERCURY IN THE GULF OF MEXICO.

BIBL MASTER'S THESIS, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 141 PP

KEYWORD: mercury, sediment, water column, metal, trace metal

ABSTRACT: An investigation was made into the distribution of mercury in the Gulf of Mexico. Water and sediment samples were collected at 44 stations and analyzed for mercury content between February and October 1971.

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ACC 85; TYPE; YEAR 1977
DADDIO, E.;
RESPONSE OF COASTAL WATERS TO ATMOSPHERIC FRONTAL PASSAGE IN THE MISSISSIPPI DELTA REGION.

BIBL CENTER FOR WETLAND RESOURCES, LOUISIANA STATE UNIVERSITY, BATON ROUGE, LA. TECHNICAL REPORT NO. 234. 35 PP.

KEYWORD: currents, meteorology, physical process, wind stress

ABSTRACT: Two current vector time series obtained in the Mississippi Bight exhibit clockwise polarized currents of near-inertial frequency that are closely associated with shifting winds. Because of the closeness of the local inertial period and the diurnal tidal period, it is difficult at first glance to determine the true nature of the observed rotary currents. However, complex demodulation at the inertial frequency reveals a strong signal accompanying wind shifts that are usually associated with the passage of atmospheric fronts. Spectral analysis for clockwise and counterclockwise frequencies indicates a highly energetic peak in the inertial-diurnal frequency band for the clockwise spectrum. The rotary coefficient computed from the autospectra and quadrature spectrum of the vector components gives CR>0.9 in the vicinity of the inertial-diurnal frequency band. A model using wind stress as a forcing function is highly effective in reproducing sinusoidal oscillations seen in the observed current. These oscillations occur in conjunction with shifts in the wind direction. Because of the close association of the near-inertial oscillations with local wind effects, it is concluded that inertial currents are locally induced by wind stress. Furthermore, wind stress not only initiates the rotary current but is highly effective in destroying them.

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ACC 198; TYPE; YEAR 1979
DAMES AND MOORE;
THE MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY, MAFLA 1977/1978. VOLUME 1.A. PROGRAM SYNTHESIS REPORT.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-79/01-VOL-1-A. 278 PP

KEYWORD: biology, currents, ecology, geology, hydrocarbon, continental shelf, physical process, salinity, MAFLA

ABSTRACT: A third year baseline marine environmental survey was conducted and a synthesis report prepared. Marine geology, physical oceanography, marine biology, trace metal and hydrocarbon chemistry of the water column, sediments and tissues were examined for the Mississippi, Alabama, Florida Outer continental shelf in support of prospective OCS oil and gas development. Physical oceanographic and sediment geology data provided information to better understand the biological and chemical distributions. A data base was created merging data collected from 1974-1978 into a single format.

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ACC 199; TYPE; YEAR 1979
DAMES AND MOORE;
THE MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY, MAFLA. 1977/1978. VOLUME 1-B.-EXECUTIVE SUMMARY REPORT.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON. D.C. BLM/YM/ES-79/02-VOL-1-B. 30 PP

KEYWORD: biology, ecology, fish, geology, hydrography, oceanography, oil, continental shelf, pollution, sediment, MAFLA

ABSTRACT: The prime purpose of the MAFLA program was the determination of ongoing or potential impacts on the outer continental shelf (OCS) environment from oil and gas development. The Executive Summary Report is organized along the same lines as the Program Synthesis Report, with sections on methodology, geology, physical oceanography, chemistry and biology. A brief summary and lists of recommended monitoring parameters and major deficiencies in the database are also included.

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ACC 300; TYPE; YEAR 1979
DAMES AND MOORE;
THE MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY, MAFLA, 1977/1978. VOLUME II-A. COMPENDIUM OF WORK ELEMENT REPORTS.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-79/08-VOL-2-A. 537 PP.

KEYWORD: benthic community, biology, ecology, geology, mineralogy, oil, continental shelf, pollution, sediment, MAFLA

ABSTRACT: This report presents the results of a four year investigation of the surface sediments of the eastern Gulf of Mexico continental shelf. In the first two years our approach consisted of sampling from two of the replicate box cores at each station and each season. During the final summer and year the authors altered their approach by collecting a large number of replicates at each of the relatively small number of stations in order to determine small scale variability. In addition to sedimentologically characterizing the MAFLA margin, the authors task was to provide ancillary data for sediment chemistry and benthic biological studies.

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ACC 301; TYPE; YEAR 1979
DAMES AND MOORE;
THE MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY. MAFLA, 1977/1978. VOLUME II-B. COMPENDIUM OF WORK ELEMENT REPORTS.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-9/08-VOL-2-B. 546 PP.

KEYWORD: invertebrate, biology, disease, drilling, ecology, fish, hydrocarbon, oil, pollution, temperature, MAFLA

ABSTRACT: Demersal- or bottom fishes, are represented by numerous species at the peak of the trophic level. These top carnivores are, therefore, primary candidates for analysis of any sort of biological concentration or magnification of substances passing through the lower trophic levels. In addition, many of the benthic fishes are substrate-specific and reflect and corroborate distribution of sediment types. Many of the forms exhibit abbreviated larval development, and thus are good indicators of historical zoo-geographical patterns. Finally, to the public at large, fishes represent an identifiable unit, recognizable and deserving of study, especially in regard to possible effects by drilling interests.

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ACC 851; TYPE; YEAR 1975
DAMES AND MOORE;
THE LOUISIANA OFFSHORE OIL PORT (LOOP) ENVIRONMENTAL ASSESSMENT.

BIBL LOUISIANA OFFSHORE OIL PORT (LOOP), INC., NEW ORLEANS, LA.

KEYWORD: air temperature, benthic fauna, carbon, demersal fish, dissolved oxygen, electrical conductivity, metal, nutrient, pH, port, BOD, pipeline

ABSTRACT: As part of the LOOP, Inc. environmental assessment, a field study of the offshore mooring site, the onshore storage facility, and the proposed pipeline route was initiated in June, 1973 to continue to May, 1974. The objectives are to describe the ecosystems impacted by the proposed LOOP project, including an environmental inventory, Physical, chemical, and biological parameters are studied. This report deals with the offshore portion of the study

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ACC 4159; TYPE P; YEAR 1986
DANEK, L.J.; LEWBEL, G.S.;
SOUTHWEST FLORIDA SHELF BENTHIC COMMUNITIES STUDY YEAR 5 ANNUAL REPORT.

A FINAL REPORT BY ENVIRONMENTAL SCIENCE AND ENGINEERING, INC. & LGL ECOLOGICAL RESOURCE ASSOCIATES, INC. CONTRACT #14-12-001-30211.

BIBL SUBMITTED TO THE MINERALS MANAGEMENT SERVICE, NEW ORLEANS, LA. 3 VOL.

KEYWORD: physical, oceanography, currents, wave, tide, hydrography, sediment, biological, epifauna, fish, macroalgae, recruitment, fouling, population dynamics, SWFLA

ABSTRACT: This report presents the findings of the 5th year of a 6-yr study of the southwest Florida outer continental shelf benthic communities. The emphasis of the study was on the physical and biological processes that occur in soft, hard, and live bottom communities and an assessment of how these processes and communities might be affected by offshore oil and gas development. Epifauna, macroalgae, fish, sediments, salinity, temperature, dissolved oxygen, transmissivity, and pH, were sampled using a variety of methods including underwater television, benthic still photography, CTD hydrographic sampling, trawling and dredging. In addition, at 8 stations continuous monitoring of near-bottom temperature, ocean currents, waves, tides, sediment transport, epifaunal recruitment, and fish behavior was accomplished using instrumented arrays equipped with current meters, wave and tide gages, sediment traps, fouling plates, and time-lapse cameras. The biological data collected identified a diversity of taxa varying from a very dense epifauna hard-bottom community in shallow water (e.g., over 100 species of sponges) to a sparse crinoid assemblage at the shelf break in 125 m of water. The shallow water communities are subject to greater natural stresses due to higher rates of sediment resuspension (up to 1,000 metric tons/sq.km/day), higher frequency of wave induced water velocities, and considerable seasonal temperature variation. In spite of these stresses, these communities flourish and exhibit a recruitment rate that is higher than the stations located in water deeper than 50 m. The deeper stations, located further offshore, altho...

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ACC 4296; TYPE P; YEAR 1976
DANENBERGER, E.P.;
OIL SPILLS 1971-75. GULF OF MEXICO OUTER CONTINENTAL SHELF.

BIBL U.S. GEOL. SURV. (WASHINGTON, D.C.) 741:47 P.

KEYWORD: oil spill, continental shelf, petroleum, pollution

ABSTRACT: Not available.

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ACC 841; TYPE; YEAR 1977
DANIELS, K.L.;
DESCRIPTIONS, COMPARISON AND DISTRIBUTION OF LARVAE OF CYNOSCION NEBULOSUS AND CYNOSCION ARENARIUS FROM THE NORTHERN GULF OF MEXICO.

BIBL MASTER'S THESIS, LOUISIANA STATE UNIVERSITY, BATON ROUGE, LA. 48 PP.

KEYWORD: demersal fish, sea trout, morphology, distribution, larvae

ABSTRACT: This study presents a comparison of spotted sea trout (Cynoscion nebulosus) and sand seatrout (Cynoscion arenarius) in terms of morphological development, pigmentation and osteological development. The specimens examined were taken from 1971 to 1977 on various Oregon cruises.

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ACC 2084; TYPE P; YEAR 1978
DARCY, G.H.; GUTHERZ, E.J.;
ABUNDANCE AND DENSITY OF DEMERSAL FISHES ON THE WEST FLORIDA SHELF, JANUARY 1978.

BIBL BULL. MAR. SCI.

KEYWORD: demersal fish, shrimp, pink shrimp, fish, abundance, distribution, rock shrimp

ABSTRACT: Three hundred thirty eight stations were trawled on the west Florida shelf during January 1978 to determine fish species composition and abundance. At least 246 species of fish from 71 families were collected. Northern stations had approximately twice the fish density as southern stations. Total catch rates were usually highest in shallow water. Some commercially important shrimps (Penaeus setiferus, P. duorarum, Sicyonia brevirostris, Scylla rides nodifer) were also caught. Although qualitatively similar to other areas of the northern Gulf, the fish fauna of the west Florida shelf consisted of different dominant families and species. Differences in fish faunal composition are related to bottom type.

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ACC 4026; TYPE P; YEAR 1984
DARDEAU, M.R.;
SYNALPHEUS SHRIMPS (CRUSTACEA: DECAPODA: ALPHEIDAE). I. THE GAMBORELLOIDES GROUP WITH A DESCRIPTION OF A NEW SPECIES. MEMOIRS OF THE HOURGLASS CRUISES. VOL. VII, PART II.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 125 P.

KEYWORD: systematic, reproduction, commensal, crustacea, biology, zoogeography, life history, hourglass, invertebrate, epifauna, ecology, continental shelf, shrimp

ABSTRACT: Distributional data and references to each of the 19 Gambarelloides species of Synalpheus from the Western Atlantic Region are summarized in individual species accounts. The 11 species known from the Gulf of Mexico, including a new species from the Florida Middle Ground described herein, are diagnosed and illustrated. Synalpheus bousfieldi and S. herricki are resurrected from the synonymy of S. brooksi, and S. pandionis is resurrected from the synonymy of S. longicarpus. Synalpheus herricki is redescribed, and S. tanneri placed in its synonymy. Synalpheus osburni is placed in tha synonymy of S. goodei. A key to all Synalpheus known from the Western Atlantic Region is provided. Male/female ratios of most Gambarelloides species approched unity, and virtually all adult females were ovigerous. Seasonal influence on reproduction seemed to be negligible. Recruitment of juveniles occurred year-round. Immature individuals of at last six Gambarelloides species carried infertile eggs. Many species were found in male/female pairs associated to varying degrees with living substrates. Sponges were frequent hosts, and complex cryptofaunal communities of up to five Synalpheus species were not uncommon. Population abundances of all Gambarelloides species were greatest beyond the 37 m isobath on the central west Florida continental shelf. Species of the Gambarelloides group of Synalpheus lend a tropical complexion to benthic communities within the Gulf of Mexico. There seem to be no clear cut faunal barriers to this group within the northern portion of the Western Atlantic Region.

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ACC 4027; TYPE P; YEAR 1983
DARDEAU, M.R.; HEARD, R.W., JR.;
CRANGONID SHRIMPS (CRUSTACEA; CARIDEA), WITH A DESCRIPTION OF A NEW SPECIES OF PONTOCARIS. MEMOIRS OF THE HOURGLASS CRUISES. VOL. VI, PART II.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 39 P.

KEYWORD: benthic, crustacea, systematics, zoogeography, biology, epifauna, hourglass, ecology, invertebrate, continental shelf, shrimp

ABSTRACT: A single species of crangonid shrimp, Pontophilus gorei, was captured during the 28-month Hourglass sampling program on the West Florida continental shelf. Examination of the literature and of material at the National Museum of Natural History and in Texas A&M University collections revealed six additional crangonid species from the deeper water beyond the shelf in the Gulf of Mexico and Caribbean: Sabinea tridentata, Pontophilus brevirostris, P. gracilis, P. talismani, Pontocaris caribbaea and Pontocaris vicina n. sp. All species are diagnosed, illustrated and accompanied by synonymies. A key to the known genera of Crangonidae and an illustrated key to the seven species known from the Gulf of Mexico are provided. Population abundance of Pontophilus gorei was greatest at the 73 m Hourglass stations and decreased successively at the 55 m and the 37 m stations. The monthly distribution of ovigerous females indicates an extended breeding season.

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ACC 192; TYPE; YEAR 1983
DARNELL, R.M.; DEFENBAUGH, R.E.; MOORE, D.;
NORTHWESTERN GULF SHELF BIO-ATLAS. A STUDY OF THE DISTRIBUTION OF DEMERSAL FISHES AND PENNAEID SHRIMP OFF SOFT BOTTOMS OF THE CONTINENTAL SHELF FROM THE RIO GRANDE TO THE MISSISSIPPI RIVER DELTA.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. OPEN FILE REPORT NO. 82-04. 438 PP.

KEYWORD: biology, continental shelf, distribution, ecology, fauna, fishery, salinity, sediment, temperature, shrimp, demersal fish

ABSTRACT: Not available.

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ACC 894; TYPE; YEAR 1976
DARNELL, R.;
BIO ENERGETICS STUDY - GULF OF MEXICO.

BIBL TEXAS A&M UNIVERSITY, DEPARTMENT OF OCEANOGRAPHY, COLLEGE STATION, TX.

KEYWORD: bathymetry, benthic fauna, demersal fish, invertebrate

ABSTRACT: The data file represents results of a two year study involving over 150 stations on the northern Gulf Coast extending from Panama City, Florida to Corpus Christi, Texas. Samples include benthic fishes and benthic macroinvertebrates.

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ACC 1081; TYPE; YEAR 1956
DARNELL, R.M.; WILLIAMS, A.B.;
A NOTE ON THE OCCURRENCE OF THE PINK SHRIMP, PENAEUS DUORARUM, IN LOUISIANA WATERS.

BIBL ECOLOGY 37(4):844-846.

KEYWORD: biology, fishery, shrimp, pink shrimp, species composition

ABSTRACT: Not available.

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ACC 2011; TYPE P; YEAR 1975
DAROVEC, J.E., JR.; ET AL.;
TECHNIQUES FOR COASTAL RESTORATION AND FISHERY ENHANCEMENT IN FLORIDA.

BIBL FLA. MAR. RES. PUBL. NO. 15:27

KEYWORD: seagrass, sediment, artificial reef

ABSTRACT: Guidelines for the reestablishment of sand dunes, salt marshes, mangroves, and seagrasses were outlined. Several perennial plants including sea oats and bitter panic grass were recommended for stabilizing sand dunes; smooth cord grass and black needlerush for marsh transplantations; black, red, and white mangrove areas; and turtle grass, manatee, shoal grass and widgeon grass for grass bed restoration. For successful seagrass transplanting, sediment transfer along with the plant was advised. Planting densities, time of transplanting, and procedures for removal and care were discussed for each section. Guidelines also described habitat augmentation using artificial fishing reefs and oyster reefs.

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ACC 4028; TYPE P; YEAR 1983
DAROVEC, J.E., JR.;
SCIAENID FISHES (OSTEICHTHYES: PERCIFORMES) OF WESTERN PENINSULAR FLORIDA. MEMOIRS OF THE HOURGLASS CRUISES. VOL. VI, PART III.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES., ST. PETERSBURG, FL. 73 P.

KEYWORD: fish, systematic, life history, distribution, demersal fishes, biology, hourglass, benthic, ecology, continental shelf

ABSTRACT: Keys and diagnoses are given for the genera and fourteen species of Sciaenidae from western peninsular Florida. Summaries of published information on their distribution, life history, feeding and salinity and temperature tolerances are presented. Menticirrhus focaliger Ginsburg and Cynoscion arenarius Ginsburg are considered synonyms under M. saxatilis (Bloch and Schneider) and C. regalis (Bloch and Schneider), respectively. Pareques Gill is treated at the generic level. Length frequency and gonad analysis indicated Equetus lanceolatus (Linnaeus) spawns in late spring and summer. The smallest ripe females were 132 mm in standard length. Similar analyses for Pareques umbrosus (Jordan and Eigenmann) proved inconclusive. Gut contents showed that these reef species feed mainly on crustaceans. Tribe level systmatics, zoogeography, general life history, and position in the food web are discussed for the species captured and related species. These discussions present new hypotheses about intergeneric relationships, a demonstration of very different inshore and offshore sciaenid faunas in the study area, and descriptions of several examples of allomatric growth exhibited by sciaenids of the west Florida shelf. An appendix provides information on Florida sciaenids not found in the area covered.

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ACC 2260; TYPE P; YEAR 1974
DAUER, D.M.;
REPOPULATION OF THE POLYCHAETE FAUNA OF AN INTERTIDAL HABITAT FOLLOWING NATURAL DEFAUNATION.

BIBL. PH.D. DISSERTATION. UNIVERSITY OF SOUTH FLORIDA, TAMPA, FL.

KEYWORD: polychaete, red tide, distribution, sediment, temperature, salinity

ABSTRACT: Repopulation of the polychaete fauna following a massive red tide outbreak conformed to the species equilibrium model of MacArthur and Wilson (1963, 1967). Immigration of species was rapid, with the majority of immigration occurring within the first month of the study. An equilibrium number of species was established in the eleventh month, and remained relatively constant for the remainder of to the study. Although species composition was fairly constant, the distribution of individuals among species changed greatly. Adult dispersal was determined to be a significant factor in the establishment of populations. Larval settlement was shown to be more significant in the maintenance than in the establishment of the populations in contrast to the pattern predicted by Thorson (1950, 1955, 1957, 1966).

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ACC 2261; TYPE P; YEAR 1976
DAUER, D.M.; CONNER, W.G.;
ORGANIC ENRICHMENT EFFECTS UPON BENTHIC POLYCHAETE POPULATIONS.

BIBL. V J. SCI. 27(2):43.

KEYWORD: polychaete, hypoxia

ABSTRACT: The effects of organic enrichment upon intertidal benthic polychaete populations of upper Old Tampa Bay, Florida, were examined. An experimental site near a sewage outfall was compared to a physically similar control site by monthly quantitative samples. Species numbers and density values for the experimental site were significantly higher than those of the control site. Species with benthic larval development were responsible for the observed density differences. A massive accumulation of Ulva lactuca (and accompanying anaerobic conditions) at the experimental site during the summer months resulted in species numbers and density values significantly lower than the control site. Reestablishment of the populations was rapid at the experiment site.

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ACC 2262; TYPE P; YEAR 1976
DAUER, D.M.; SIMON, J.L.;
REPOPULATION OF THE POLYCHAETE FAUNA OF AN INTERTIDAL HABITAT FOLLOWING NATURAL DEFAUNATION: SPECIES EQUILIBRIUM.

BIBL. OCEOLOGIA (BERL.) 22:99-117.

KEYWORD: polychaete, red tide, model, temperature, salinity, sediment

ABSTRACT: During the summer of 1971, an outbreak of red tide resulted in the defaunation of a previously characterized sandy intertidal habitat. This study reported the recolonization of polychaete fauna in that area. The rates of immigration and extinction showed that repopulation conformed to the species equilibrium model of MacArthur and Wilson. Immigration was found to be rapid with an equilibrium number of species becoming established in the eleventh month. Although the species composition remained fairly constant, the distribution of individuals among species changed greatly.

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ACC 586; TYPE; YEAR 1970
DAVIES, D.K.; MOORE, W.R.;
DISPERSAL OF MISSISSIPPI SEDIMENTS IN THE GULF OF MEXICO.

BIBL. J. SEDIMENT. PETROL. 40:339-353.

KEYWORD: continental shelf, continental slope, geology, heavy mineral, sediment, sediment distribution, geologic history

ABSTRACT: Pleistocene and recent Mississippi sediments possess a distinctive heavy mineral assemblage which retains its identity between Cairo, Illinois and the Gulf of Mexico Abyssal Plains. Thus this assemblage may be used to trace the Mississippi contribution to the Gulf of Mexico from fluvial, through deltaic, neritic and bathyal, to abyssal environments. Significant changes in the heavy mineral assemblage of sediments in the Gulf are related to source changes and not to the reworking or selective sorting of Mississippi sediments. As a result, three district sediment input sources may be recognized for detrital sediments in the Gulf of Mexico Abyssal Plain 1) The Mississippi, 2) the Rio Grande, and 3) the rivers of north-east Mexico. The Mississippi contribution is dominant and is only replaced by other inputs in the northwest and southwest corners of the abyssal plin. On the Louisiana-Texas Inner Continental Shelf, Mississippi sediment forms a veneer which extends between the present delta and the Salbine River. Dredge samples reveal that underlying sediments were derived from the central Texas rivers to the west, probably during a period of regression which occurred between 10,000 and 7,000 B.P. The interaction of a high zircon content and intense selective sorting in the Inner Continental Shelf sediment resulted in two areas of zircon enrichment which may be of economic significance. Because of the intensitivity of the heavy mineral assamblage of the Mississippi contribution to processes of selective sorting and reworking, only 200 non-opaque grains from one size fraction of one sample are needed to characterize this cont...

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ACC 2043; TYPE P; YEAR 1977
DAVIS, G.E.;
ANCHOR DAMAGE TO A CORAL REEF ON THE COAST OF FLORIDA.

BIBL BIOL. CONSERV. 11:29-34.

KEYWORD: coral, anchor damage, reef

ABSTRACT: An assessment of the anchor damage to coral reefs was made at Fort Jefferson National Monument, Dry Tortugas, Florida. It was estimated that 20 percent of an extensive staghorn coral reef had been damaged by boat anchors. The author suggested that damage could occur in other coral reef sanctuaries unless anchor sensitive areas were identified and closed to anchoring, and mooring buoys were provided.

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ACC 2044; TYPE P; YEAR 1982
DAVIS, G.E.;
A CENTURY OF NATURAL CHANGE IN CORAL Distribution AT THE DRY TORTUGAS: A COMPARISON OF REEF MAPS FROM 1881 AND 1976.

BIBL BULL. MAR. SCI. 32(2):608-623.

KEYWORD: reef, coral, distribution, meteorology, storm event

ABSTRACT: Reef maps prepared in 1881 and 1976 were compared to determine changes in coral reef structure and composition at Dry Tortugas, Florida, over a 95 year interval. Little change in area occupied by living hermatypic coral, less than 4% of the 23,000 hectare area mapped, occurred during the interval. Coral species distribution and reef types exhibited major changes. An octocoral dominated hard bottom in 1881 had been replaced by a 220 hectare Acrpora cervicornis reef in 1976. Forty four hectares of A. palnata in 1881 were reduced to two small patches totaling less than 600 square meters in 2976. During the winter of 1976-77, 90% of A. cervicornis at Dry Tortugas was killed, apparently due to thermal shock. The importance of short term weather events in regulating coral reef structure and species distribution is discussed.

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ACC 2396; TYPE P; YEAR 1966
DAVIS, W.P.;
OBSERVATIONS ON THE BIOLOGY OF OPHIUROID ASTROPHYTOM MURICATUM.

BIBL BULL. MAR. SCI. 16(3):435-444.

KEYWORD: Monroe, habitat, morphology, behavior, echinoderm

ABSTRACT: The behavior of the basketstar, Astrophyton muricatum was investigated during dives at reefs in the Florida Keys. Some laboratory observations were undertaken to facilitate more detailed study. Habitat, morphology, and feeding behavior are discussed, with emphasis on nocturnal activity. Associated reef organisms and their related behavior are also documented.

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ACC 4029; TYPE P; YEAR 1977
DAVIS, G.E.;
EFFECTS OF RECREATIONAL HARVEST ON A SPINY LOBSTER, PANULIRUS ARGUS. POPULATION.

BIBL BULL. MAR. SCI. 27(2):223-236

KEYWORD: biology, crustacea, recreational fishery, spiny lobster, tagging, management, invertebrate, benthic

ABSTRACT: A commercially unfished population of Panulirus argus was studied in Fort Jefferson National Monument at Dry Tortugas, Florida, from April 1971 to July 1975. For 29 months all harvest was prohibited, then an experimental sport harvest (hand caught by recreational divers) was allowed in 50% of the areas for a period of 8 months, followed by 16 months of complete protection for assessment of recovery. Data on the size, abundance, and natural history of the lobsters were collected using SCUBA and commercial trapping techniques. A total of 4,257 lobsters, with a mean carapace length of 101 mm, was tagged and released at Dry Tortugas. The existence of a resident adult P. argus population was demonstrated by the recovery of all recaptured lobsters (7.3%) within 10 km of their respective capture sites up to 104 weeks after release. Immediately following the experimental sport harvest, the population in the sport harvested area showed a 58% reduction in trap catch rate and dispersed to 42% of its pre-harvest lair occupancy density, while the population in the unharvested control area remained essentially unchanged. The catch rate in the sport harvested area recovered to 78% of its pre-harvest level after 1 year of complete protection from harvest, and the lair occupancy rate recovery was 71% after 16 months of postharvest protection. The pre-harvest standing crop was estimated at 58.3 km/ha, wet weight.

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ACC 4030; TYPE P; YEAR 1978
DAVIS, G.E.;
CHANGES IN THE EVERGLADES NATIONAL PARK RED DRUM AND SPOTTED SEATROUT FISHERIES 1958-1978: FISHING PRESSURE, ENVIRONMENTAL STRESS, OR NATURAL CYCLES?

BIBL IN: PROCEEDINGS OF THE RED DRUM AND SEATROUT COLLOQUIM. P. 81-87.

KEYWORD: biology, commercial fishery, recreational fishery, socioeconomic, sea trout, redfish, fish, coastal

ABSTRACT: Everglades National Park supports mixed recreational and commercial fisheries for red drum, Sciaenops ocellata and spotted seatrout, Cynoscion nebulosus. Within the 663,750 acres of the coastal waters of the park, there are six ecologically discrete systems ranging from 51,000 to over 164,000 acres each. Commercial fishing is prohibited in a total of 94,000 acres in two of these systems. The number of commercial fishermen involved in these fisheries fluctuated between 125 and 276 from 1963 to 1978.

Recreational fishing activity increased steadily from 58,000 angler-days in 1959 to 174,000 in 1965. It fell slightly in the late 1960,s' reached another peak of about 160,000 angler-days in 1973 and 1974, and fell again to less than 100,000 angler-days in 1977. Recreational fishermen caught 96% of the red drum and 55% of the spotted seatrout landed in Everglades National Park from 1972 through 1977. The mean annual yield of red drum from park water was 0.366 pound per acre, and 0.250 pound per acre for spotted seatrout; producing mean annual harvests of 232,300 pounds of red drum and 158,600 pounds of spotted seatrout from 1972 through 1977. In the past 20 years three significant changes occurred in these park fisheries: (1) a shift in age structure toward larger, mature fish; (2) consistent trends in catch rates, upward for red drum (24 to 127%) and downward for spotted seatrout (6 to 54%); and (3) marked reductions in the year-to-year variability of catch rates for both species. Preliminary analysis of these observations suggests that changes in environmental conditions in park estuaries caused the changes in fishery...

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ACC 4179; TYPE P; YEAR 1984
DAVIES, J.M.; BELL, J.S.; HOUGHTON, C.;
A COMPARISON OF THE LEVELS OF HEPATIC ARYL HYDROCARBON HYDROXYLASE IN FISH CAUGHT CLOSE TO AND DISTANT FROM NORTH SEA OIL FIELDS.

IN: PROCEEDINGS 2ND INTERNATIONAL SYMPOSIUM RESPONSE OF MARINE ORGANISMS TO POLLUTANTS.

BIBL. WOODS HOLE OCEANOGRAPHIC INSTITUTE. ELSEVIER APPLIED SCIENCE PUBLICATION. LONDON 1984:23-45.

KEYWORD: drilling mud, hydrocarbon, sediment, fish, oil

ABSTRACT: Large-scale use of oil-based muds for drilling operations offshore can lead to high concentrations of aromatic hydrocarbons in the sediments close to these platforms. Fish were trawled from stations close to and distant from such platforms and the levels of hepatic aryl hydrocarbon hydroxylase (AHH) were determined in cod, haddock and whiting. The data for cod and haddock showed significantly higher levels of AHH in the livers of fish caught close to oil platforms than in those caught in areas away from oil activity, while whiting showed no such differences. The data are the first indications that the oil in the sediments around platforms may be biochemically available to fish in the area.

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ACC 2085; TYPE P; YEAR 1969
DAWES, C.J.; VAN BREEDVELD, J.F.;
BENTHIC MARINE ALGAE.

BIBL. MEMOIRS OF THE HOURGLASS CRUISES. MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, I. PT. II. 47 P.

KEYWORD: benthic, algae, hourglass

ABSTRACT: One hundred and fifty-seven species of marine algae including 38 species of Chlorophyta, 29 species of Phaeophyta, 85 species of Rhodophyta and 5 species of Cyanophyta had been identified from the Hourglass cruises of the Florida Board of Conservation, Marine Research Laboratory. The collections were made on the continental shelf at depths of 6 to 73 meters. Eighteen new species for Florida were recorded.

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ACC 2166; TYPE P; YEAR 1967
DAWES, C.J.; EARLE, S.A.; CROLEY, F.G.;

THE OFFSHORE BENTHIC FLORA OF THE SOUTHWEST COAST OF FLORIDA.

BIBL. BULL. MAR. SCI. 17(1):211-231.

KEYWORD: benthic, algae, temperature, salinity, light, sediment

ABSTRACT: One hundred and sixty four forms of marine algae, including 50 species and 11 varieties of Chlorophyta, 28 species and 2 varieties of Phaeophyta, 70 species and 1 variety of Rhodophyta and Sargassum were collected along the southwest coast of Florida. The area was divided into two distinct ecological zones based on the plants found and the physical data. An annotated list of species with ecological notes was presented along with abiotic parameters descriptions.

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ACC 2012; TYPE P; YEAR 1954
DAWSON, C.E.;
A BIBLIOGRAPHY OF THE LOBSTER AND THE SPINY LOBSTER, FAMILIES HOMARIDAE AND PALINURIDAE.

BIBL. FLA. BD. CONSERV. PUBL. 86 P.

KEYWORD: bibliography, spiny lobster

ABSTRACT: This bibliography includes worldwide papers concerning lobsters of the families Homaridae and Palinuridae. A subject and author index is included.

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ACC 2086; TYPE P; YEAR 1953
DAWSON, C.E., JR.; SMITH, F.G.W.;
THE GULF OF MEXICO SPONGE INVESTIGATION.

BIBL FLORIDA STATE BOARD OF CONSERVATION. TECH SER. NO. 1, 27 P.

KEYWORD: sponge, temperature, salinity, DO, nutrient

ABSTRACT: Thirty eight stations from Dry Tortugas to Panama City were sampled from December 1947 to October 1948 in a survey of Florida commercial sponge beds. Commercial sponges were found at 12 stations in depths from 18 to 60 feet. Although dead or damaged commercial sponges were observed at several locations, there was no evidence of the 1930 sponge disease. However, few sponges of commercial size were found at any site, and the low abundance of small commercial sponges indicated a slow recovery of the Florida sponge industry.

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ACC 2187; TYPE P; YEAR 1951
DAWSON, C.D., JR.; IDYLL, C.P.;
INVESTIGATIONS ON THE FLORIDA SPINY LOBSTER, PANULIRUS ARGUS (LATREILLE).

BIBL FLORIDA STATE BOARD OF CONSERVATION. TECH. SER. NO. 2. 39 P.

KEYWORD: life history, spiny lobster, management, fishery, spawning, weight, length, tagging

ABSTRACT: This study examined the life history of the spiny lobster, Panulirus argus, to provide a basis for management of the fishery. Spawning occurred from March to June, with a maximum spawning occurring in April. Data was summarized on sex ratios, weight-length and total length-tail length relationships. A tagging study demonstrated that lobsters migrated up to 125 mi/year, but that 90% more migrates less than 20 miles/year. It was concluded that the spiny lobster population probably did not decline during the study and that overfishing did not occur. Recommendations were made for changes in fishery regulations.

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ACC 18; TYPE; YEAR 1981
DE LA CRUZ, A.A.;
DIFFERENCES BETWEEN SOUTH ATLANTIC AND GULF COAST MARSHES.

IN: R.C. CAREY, P.S. MARKOVITS, AND J.B. KIRKWOOD, EDS. PROCEEDINGS OF THE U.S. FISH AND WILDLIFE SERVICE WORKSHOP ON COASTAL ECOSYSTEMS OF THE UNITED STATES. P. 10-20.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-80/59.

KEYWORD: biology, coastal water, coastal zone, marsh, productivity, standing crop, taxonomy, physical process, nutrient, meteorology

ABSTRACT: The one factor that determines the biological (plant communities), ecological (primary productivity, food web, energy flow), and chemical (salinity, nutrients) differences between the South Atlantic and Gulf Coast marshes is water-the hydrological processes and hydrodynamic regimes that characterize each region. Gulf coast marshes are developed primarily on deltaic formations constructed on alluvial deposits created by several major river systems, while the South Atlantic marshes are basically formed on estuarine and lagoonal soft silt deposits bridging the barrier islands and the mainland shorelines. Tides in the South Atlantic (a tidal dominated coast) are normally semidiurnal with fluctuations of more than 2.0 m; meteorological phenomena are more stable with fewer events of major storm surges. In the Gulf, tides are generally diurnal with maximum fluctuation of 0.3 m; but during periods of lowest fluctuations, tides can change over to very weak semidiurnal occurrences. Prevailing local weather conditions, the occurrence of seasonally changing major wind directions, high energy summer tropical storms, and Gulf basin natural oscillations complicate the hydrodynamics of the Gulf marsh system. The peculiar hydrology of the Gulf Coast (a wave dominated coast coupled with the great freshwater input dominated by the Mississippi River) influences salinity, producing a more diverse vegetation structure and seasonal fluxes of material into the Gulf Coast marsh-estuary.

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ACC 419; TYPE; YEAR 1979
DE LA CRUZ, A.A.;
RECENT ADVANCES IN OUR UNDERSTANDING OF SALT MARSH ECOLOGY.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-79-012. 65 PP.

KEYWORD: biology, coastal zone, ecology, energy flux, life cycle, marsh, productivity, nutrient

ABSTRACT: Our understanding of the ecology of coastal marshes has revolved about the role of this ecosystem as a source and reservoir of energy and nutrients, and as a vital habitat for certain life stages of a number of marine organisms. While recent advances in salt marsh ecology have emphasized the metabolic processes and material fluxes that permeate the marsh-estuary, current research developments are geared towards a better understanding of the marsh as a carbon sink. Thus, investigations of 1) marsh surface productivity, 2) below-ground dynamics, and 3) decomposition processes, may dominate future research developments in salt marsh ecology.

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ACC 4031; TYPE P; YEAR 1936
DE LAUBENFELS, M.W.;
A DISCUSSION OF THE SPONGE FAUNA OF THE DRY TORTUGAS IN PARTICULAR AND OF THE WEST INDIES IN GENERAL, WITH MATERIALS FOR A REVISION OF THE PORIFERA.

BIBL. TORTUGAS LAB. CARNEGIE INST. WASH. (30):225 P.

KEYWORD: biology, ecology, systematic, epifauna, life bottom, reef, invertebrate, morphology, sponge

This monograph presents a systematic account of sponges collected near the Dry Tortugas and other West Indian areas (coasts of Florida, the Greater and Lesser Antilles, tha Bahamas, and Bermuda).

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ACC 646; TYPE; YEAR 1981
DEEGEN, R.; LEWIS, P.L.; VAN DEVENDER, T.;
REHABILITATION OF NATURAL OYSTER REEFS DESTROYED OR DAMAGED BY NATURAL DISASTER.

IN: J.R. KELLY, ED. SYMPOSIUM ON MISSISSIPPI SOUND. P 44-49

BIBL. MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS MASGP-81-007

KEYWORD: biology, disaster, oyster fishery, reef, rehabilitation, resource, socioeconomic, meteorology, defaunation

ABSTRACT: Not available.

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ACC 190; TYPE; YEAR 1976
DEFENBAUGH, R.E.;
A STUDY OF THE BENTHIC MACROINVERTEBRATES OF THE CONTINENTAL SHELF OF THE NORTHERN GULF OF MEXICO.

BIBL PH.D. DISSERTATION, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX.

KEYWORD: benthic community, benthic fauna, biology, community structure, continental shelf, taxonomy, invertebrate, distribution, assemblage

ABSTRACT: The present study details the occurrence and distribution of the macro invertebrates of the continental shelf of much of the Gulf of Mexico. The primary study area is the northern Gulf, between Corpus Christi, Texas, and Pensacola, Florida; some information is also provided on the fauna of the Mexican coast, between the mouth of the Rio Soto la Marina, Tamaulipas, and Progreso, Yucatan. Tha study is based on collections from 146 trawl samples, mostly collected in the depth range of 18 to 183 m. Approximately 50,000 specimens were collected and processed. These represent 356 species in 261 genera and 161 families, and include sponges (10 species), coelenterates (41 species), worms (26 species, in 5 phyla), molluscs (116 species), arthropods (113 species), echinoderms (30 species), ectoprocts (9 species), and urochordates (11 species). Essentially all species are synoptically described, with pertinent comments on distribution and natural history, and are photographically illustrated. Literature pertaining to the fauna and physical characteristics of the Gulf of Mexico is reviewed and discussed. Based upon the results of the present study, the published literature, and unpublished reports, twelve faunal assemblages characteristic of the northern Gulf, from Brownsville, Texas, to Tampa Bay, Florida, in the depth range of 4 to 200 m are proposed. These assemblages are: (a) inner shelf assemblage, Texas-Louisiana shelf (4-20 m); (b)pro-delta fan assemblage (4-20 m); (c) pro-delta sound assemblage (4-20 m); (d) inner shelf assemblage, West Florida shelf (4-20 m); (e) intermediate shelf assemblage, Texas-Louisiana shelf (20-60)...

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ACC 2397; TYPE P; YEAR 1979
DEFELICE, D.; LYNS, G.;
BIOTICA AND ABIOTIC PARAMETERS AFFECTING DIVERSITY IN MODERN AND ANCIENT BENTHIC DIATOM ASSEMBLAGES OF FLORIDA.

BIBL. FLA. SCI. 42(SUPPL.):44.

KEYWORD: Monroe, substrate, light, sediment, phytoplankton, algae, nutrient, silicate

ABSTRACT: A study of benthic diatom communities in Florida Bay showed that diatom diversity is determined by various biotic and abiotic parameters, including substrate, light quality, sediment particle size, and distance from land. In Florida Bay diatoms are common in surface sediment, but absent immediately below the surface horizon; sponge spicules are the only siliceous biogenic component in the sediment. Due to the undersaturation of siliceous material in the water column and at the water sediment interface in Florida Bay, diatoms are believed to dissolve soon after death, all wing rapid recycling and re-utilization of silica.

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ACC 2398; TYPE P; YEAR 1975
DEFELICE, D.R.;
MODEL STUDIES OF EPIPHYTIC AND EPIPELIC DIATOMS OF UPPER FLORIDA BAY AND ASSOCIATED SOUNDS.

BIBL MASTER'S THESIS. DUKE UNIVERSITY. 193 P.

KEYWORD: Monroe, diversity, seagrass, sediment grain size, model, phytoplankton, distribution

ABSTRACT: The diatom flora of northeastern Florida Bay and adjoining sounds was modeled using factor-vector analysis and species diversity indices. Four distinct floras were identified, two of which were epipelic floras inhabiting the carbonate mud substratum. Of the 162 species identified from 30 stations, 34 were restricted to the epiphytic habitat and 18 species were limited to the epipelic habitat. The epipelic flora was significantly more diverse than the epiphytic flora. Diversity of floras from both habitats increased away from land areas. Factors affecting the distribution of both types of flora are hypothesized.

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ACC 2399; TYPE P; YEAR 1978
DEFELICE, D.R.; LYNTS, G.W.;
BENTHIC MARINE DIATOM ASSOCIATIONS: UPPER FLORIDA BAY (FLORIDA) AND ASSOCIATED SOUNDS.

BIBL J. PHYCOL. 14:25-33.

KEYWORD: Monroe, carbonate, assemblage, sediment, phytoplankton, seagrass

ABSTRACT: Studies were conducted on the tropical marine diatom flora of Florida Bay. Models of the diatom associations found in upper Florida Bay and adjoining sounds were constructed, and 4 distinct associations were defined. Two associations were epiphytic, occurring on Thalassia testudinum and two were epipelic, occurring on carbonate mud substratum. The majority of the 161 species identified were present in both the epiphytic and epipelic assemblages. The epipelic assemblage was found to be significantly more diverse than was the epiphytic assemblage. A general trend of increased diversity away from terrestrial environs, toward more open areas of water in both the epipelon and epiphyton was noted.

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ACC 2400; TYPE P; YEAR 1980
DEFELICE, D.R.; LYNTS, G.W.;
EPIPHYTIC DIATOMS AS R-SELECTORS IN FLORIDA BAY, FLORIDA.

BIBL FLA. SCI. 43(SUPPL.):23.

KEYWORD: Monroe, life history, productivity, seagrass, phytoplankton

ABSTRACT: The benthic diatom Cocconeis placentula, an epiphyte on Thalassia testudinum grass blades in Florida Bay, was found to have the characteristic life history patterns of the theoretical 'r-selected' endpoint species. Individuals of the species are small, live in an unpredictable environment, and have high productivity and low equitability. The ephemeral nature of the seagrass bed requires periodic recolonization. Maximum energy in C. placentula is delegated for reproduction with the production of many small offspring, such that population increase is controlled solely by the maximum intrinsic rate of natural increase (r max).

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ACC 2087; TYPE P; YEAR 1980
DEHN, P.F.;
GROWTH AND REPRODUCTION IN LUIDIA CLATHRATA (SAY) (ECHINODERMATA: ASTEROIDEA)

BIBL PH.D. DISSERTATION. UNIVERSITY OF SOUTH FLORIDA. TAMPA, FL.

KEYWORD: growth, reproduction, echinodermata, temperature

ABSTRACT: Growth and reproduction of Luidia clathrata were studied in populations from Tampa Bay and Charlotte Harbor, Florida. The gametogenic cycle of both populations is described and 5 stages of gametogenesis are identified. Feeding experiments conducted in the laboratory at room and environmental temperatures during reproductive and nonreproductive seasons revealed changes in gonadal and digestive gland indices. Relationships between growth and resorption of body reserves and gonads were determined.

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ACC 2542; TYPE P; YEAR 1963
DEPALMA, J.R.;
MARINE FOULING AND BORING ORGANISMS OFF FORT LAUDERDALE, FLORIDA.

BIBL INFORMAL MANUAL REPORT NO. 0-70-62. SPONSORED BY NAVOCEANA AND THE U.S. NAVAL ORDINANCE LABORATORY. 28 P.

KEYWORD: fouling, growth, depth, temperature, salinity, current

ABSTRACT: Growth of marine fouling organisms was observed on test panels exposed at this site and the performance of copperbase antifouling paint under natural conditions was evaluated. Fouling growth occurred throughout the year, with individual species showing peaks of intensity. Organisms attached throughout the water column, and maximum density of

attachment occurred at 27 m and generally decreased with depth.

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ACC 4200; TYPE P; YEAR 1981
DETTMANN, E.H.;
AQUATIC TRANSPORT OF SINKING PARTICULATES: MODEL RESULTS AND IMPLICATIONS FOR DESIGN OF PLUME SAMPLING PROGRAMS AT OFFSHORE OIL AND GAS WELLS AND OTHER DISCHARGES.

BIBL DEV. ENVIRON. MODELL 1:157-161.

KEYWORD: transport, model, currents, offshore drilling, suspended, sediments, drilling mud, drill cutting

ABSTRACT: Not available.

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ACC 685; TYPE; YEAR 1980
DEWALD, O.E.;
SEVERE STORM AND HURRICANE IMPACTS ALONG THE GULF AND LOWER ATLANTIC COASTS

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 10 PP.

KEYWORD: coastal water, hurricane damage, hurricane, meteorology, tropical storm

ABSTRACT: Not available.

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ACC 2292; TYPE P; YEAR 1977
DEWITT, T.;
SPATIAL AND TEMPORAL VARIATION IN THE STRUCTURE OF A MANGROVE SWAMP BENTHIC COMMUNITY.

BIBL ENVIRONMENTAL STUDY REPORT. NEW COLLEGE AT UNIVERSITY OF SOUTH FLORIDA, TAMPA, FL.

KEYWORD: Sarasota, invertebrate, distribution, diversity, salinity, sediment grain size, DO, temperature

ABSTRACT: A study of benthic macroinvertebrates was conducted in a mangrove forest on Siesta Key, Florida. Samples were collected bimonthly from 5 stations from May 1976 through May 1977. Data were analyzed for faunal similarity as well as distribution, density, diversity, and associations. Seasonal trends in granulometry and water quality parameters were identified. Species lists of polychaeters, mollusce, crustacea, and ophiuroids are included.

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ACC 2293; TYPE P; YEAR 1975
DEWITT, T.; EVARTS, J.;
A SURVEY OF THE BENTHIC MACROINVERTEBRATES IN THE BAYSIDE MANGROVE SWAMP.

BIBL NEW COLLEGE AT UNIV. ST. FLA., ENVIR. STUD. REPT.

KEYWORD: Sarasota, invertebrate, bacteria

ABSTRACT: The structure of the macroinvertebrate communities at six stations in a Sarasota Bay mangrove swamp is described. It was determined that where the mangroves were the thickest. The detritus was most abundant. Most of the decomposition was found to take place th [sic] the microbial level by bacteria. Some macroinvertebrates aided in the decomposition process, while others preyed upon these decomposers.

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ACC 432; TYPE; YEAR 1982
DIAZ, R.J.;
HABITAT SUITABILITY INDEX MODELS: JUVENILE ATLANTIC CROAKER.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS OBS-82-10.21 22 PP.

KEYWORD: ecology, fish, management, resource, geology, habitat, life history, model

ABSTRACT: Not available.

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ACC 1091; TYPE; YEAR 1983
DIAZ, E.R.;
SEAMAP MARINE DIRECTORY.

BIBL GULF STATES MARINE FISHERIES COMMISSION, PASCAGOULA, MS.

KEYWORD: biology, commercial fishery, fishery, recreation

ABSTRACT: The Southeast Area Monitoring and Assessment Program (SEAMAP) is a cooperative state/Federal/university program for collection, management, and dissemination of fishery-independent data (data collected without direct reliance on any commercial or recreational fishery) and information on the southeast region.

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ACC 416; TYPE; YEAR 1979
DINDO, J.; MACGREGOR, R.; CROZIER, G.;
ANALYSIS OF REPRODUCTIVE HORMONE AND PLASMA LIPID LEVELS ASSOCIATED WITH THE MIGRATION OF THE STRIPED MULLET, MUGIL CEPHALUS L.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-79-007. 9 PP.

KEYWORD: biology, coastal water, fish, hormone, lipid, mullet, reproduction

ABSTRACT: Not available.

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ACC 4243; TYPE P; YEAR 1984
DITTON, R.B.; AUYONG, J.;
FISHING OFFSHORE PLATFORMS CENTRAL GULF OF MEXICO: AN ANALYSIS OF RECREATIONAL AND COMMERCIAL FISHING USE AT 164 MAJOR OFFSHORE PETROLEUM STRUCTURES

BIBL MINERALS MANAGEMENT SERVICE, METAIRIE, LA (USA). GULF OF MEXICO OCS REGULATORY OFFICE. P. 157.

KEYWORD: commercial fishing, recreational fishing, artificial reef, offshore platform

ABSTRACT: This monograph reports on offshore fishing patterns derived from data collected in 1980.1981 on the fishing use directly associated with several hundred oil and gas production platforms located from 3 to more than 100 miles off the coast of Louisiana. Insight is provided into the relative abundance of platform fishing activity by major fishing group (private boats, charter and party boats, scuba boats, commercial boats, and offshore workers), home state of boat fishermen, where they go (depth and distance) when they fish, how they fish, and what species constitute their principal catch. By subdividing the study area into three analysis zones, the investigation effectively shows that demographics, transportation, access, shelf characteristics, and the interrelationship of these factors influence the amount and location of offshore "rig" fishing.

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ACC 778; TYPE; YEAR 1961
DOBIE, J.L.; OGREN, L.H.; FITZPATRICK, J.F.;
FOOD NOTES AND RECORDS OF THE ATLANTIC RIDLEY TURTLE (LEPIDOCHELYS KEMPI) FROM LOUISIANA.

BIBL COPEIA 1:109-110.

KEYWORD: reptilia, biology, ecology, feeding habit, herpetofauna, species composition, turtle

ABSTRACT: The diets of two specimens of the atlantic Ridley Turtle from the Tulane University Museum were examined and found to contain molluscs and crustacean fragments. All specimens on this study were collected from Louisiana coastal waters.

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ACC 2401; TYPE P; YEAR 1960
DOBKIN, S.;
THE EARLY LIFE HISTORY OF THE PINK SHRIMP PENAEUS DUORARUM BURKENROAD FROM FLORIDA WATERS.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 120 P.

KEYWORD: Monroe, life history, pink shrimp, larval

ABSTRACT: Between January and December 1959 plankton samples were taken from Florida Bay and Dry Tortugas areas in order to study the larvae of penaeid shrimp. The first six larval stages were studied in the laboratory where eggs were hatched. Remaining stages were examined from the field samples. Stages described are: egg, five nauplial; three protozoeal, three mysis, and two postlarval. Comparison of Penaeus duorarum and P. setiferus larvae revealed several morphological differences. Also discussed are the commercial importance of shrimp and aspects of penaeid life history.

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ACC 631; TYPE ; YEAR 1981
DOLTON, G.L.; CARLSON, K.H.; CHARPENTIER, R.R.; COURY, A.B.; ET AL.;
ESTIMATES OF UNDISCOVERED RECOVERABLE CONVENTIONAL RESOURCES OF OIL AND GAS IN THE UNITED STATES.

BIBL U.S. GEOLOGICAL SURVEY, GEOLOGICAL SURVEY CIRCULAR 860. 87 PP.

KEYWORD: oil, resource, socioeconomic

ABSTRACT: In 1980, the U.S. Geological Survey (USGS) reappraised the undiscovered recoverable conventional resources of crude oil and natural gas in the United States. The assessments of undiscovered recoverable oil and gas were based fundamentally upon analysis and review of the province petroleum geology, exploration history, volumetric-yield determinations, finding-rate studies, and structural analyses. Because of the uncertainty in estimating undiscovered resources, the reported quantities include a range of values that correspond to different probability levels. Subjective probability procedures were used in their derivation. The undiscovered recoverable conventional oil resources for the United States area estimated to range from 64.3 to 105.1 billion barrels with a mean estimate of 82.6 billion barrels. Assessed gas resources range from 474.6 to 739.3 trillion cubic feet with a mean estimate of 593.8 trillion cubic feet. Each range corresponds to 95 percent and 5 percent probabilities of more than the respective amount. When compared with the USGS estimates of 1975, the mean estimate of oil for the entire United States has changed little, whereas the mean estimate of natural gas has increased. In making such a comparison, however, the reader should recognize that resources of

the continental slopes are included in the current assessment, but were not included in the 1975 report.

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ACC 4032; TYPE P; YEAR 1978
DOWD, C.E.;
ABUNDANCE AND DISTRIBUTION OF BOTHIDAE (PISCES, PLEURONECTIFORMES) LARVAE IN THE EASTERN GULF OF MEXICO, 1971-72 AND 1973.

BIBL. MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 107 P.

KEYWORD: biology, demersal fish, epifauna, flatfish, ichthyoplankton, reproduction, distribution, seasonality, spawning area, water column, fish

ABSTRACT: Larval flatfishes of the family Bothidae are abundant on the continental shelf off the west coast of Florida. They were studied from ichthyoplankton collected in ten cruises to the eastern Gulf of Mexico in 1971-72 and 1973. The abundance and distribution of each major species was determined, differences in abundance between the two years were compared, and oceanographic factors affecting abundance and distribution were examined. An estimate of the decrease in abundance of larvae as growth occurred (apparent mortality) was made for important species. The larvae of four species, ETROPUS RIMOSUS, CITHARICHTHYS MACROPS, C. CORNUTUS and C. GYMNORHINUS, were described. Spawning by bothids tended to differ by depth and/or season. SYACIUM PAPILLOSUM larvae were the most abundant bothid, cruise means ranged from 1.7 to 23.9 larvae under 10 m2 sea surface. They were widely distributed on the shelf between 30 and 100 m depths in spring-summer but only at the southernmost stations in winter. BOTHUS ROBINSI and ETROPUS RIMOSUS were the next most abundant larval bothids. BOTHUS ROBINSI had a distribution similar to that of S. PAPILLOSSUM by area and season but B. ROBINSI larvae have a smaller mouth, suggesting a possible resource partitioning through differing feeding habits. ETROPUS RIMOSUS larvae were most abundant in winter between 20 and 60 m depths. CITHARICHTHYS species were less abundant. CITHARICHTHYS MACROPS larvae were most abundant in spring and again in fall at depths < 30 m. CITHARICHTHYS CORNUTUS and C. GYMNORHINUS occurred offshore, usually beyond the 50 m isobath, and showed no seasonality.

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ACC 262; TYPE; YEAR 1980
DOYLE, L.J.; SPARKS, T.N.;
SEDIMENTS OF THE MISSISSIPPI, ALABAMA, AND FLORIDA (MAFLA) CONTINENTAL SHELF.

BIBL. J. SEDIMENT. PETROL. 50(3):905-916.

KEYWORD: continental shelf, geology, mineralogy, MAFLA, sediment, sediment distribution, circulation, currents

ABSTRACT: The eastern Gulf (MAFLA) continental margin may be conveniently divided into two parts of opposing history and character. West of Cape San Blas lies the eastern limb of the Gulf Coast geosyncline whose surface expression is a clastic sand body, called the MAFLA Sand Sheet, grading westward into the muds of the Mississippi pro-delta. These sediments have a clay mineral suite dominated by smectite. East of Cape San Blas lies the West Florida Margin, a sequence of carbonate and evaporitic rocks which has been cut off from a major clastic source since Jurassic time. The surface expression of this sequence is the West Florida Sand Sheet, predominantly a patchy veneer of shell hash and foraminiferal, algal, and even oolitic sands which is subjected to periodic reworking by frontal system storms and hurricanes. Kaolinite dominates its clay mineralogy. Seaward of the carbonate sands lies the West Florida Lime Mud facies, slope sediments composed of planktonic foraminifera and coccoliths. Inshore of the carbonate sands and separated from them by a zone of mixed composition lies a mature quartz sand, which also makes up the beaches of Southwest Florida - West Florida shelf quartz sands appear to have been deposited at lower sea level stands and to have been transported back and forth with no net drift in a longshore current system which changes seasonally from north to south. Clay mineralogy in portions of the MAFLA region shows distinct changes in composition over a period of a year in the benthos and over periods as short as a few hours in tha water column These changes reflect contribution from two distinct provenances. Benthic...

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ACC 275; TYPE; YEAR 1981
DOYLE, L.J.; FELDHAUSEN, P.H.;
BOTTOM SEDIMENTS OF THE EASTERN GULF OF MEXICO EXAMINED WITH TRADITIONAL AND MULTIVARIATE STATISTICAL TECHNIQUES.

BIBL. MATHEMATICAL GEOLOGY. 13(2):93-117.

KEYWORD: clay mineralogy, geology, continental shelf, sediment, statistical analysis, sediment distribution,

ABSTRACT: Several multivariate statistical analyses were performed upon sediment textural and chemical data derived from a four-year study of the surface sediments of the eastern Gulf of Mexico continental margin. The results were compared with the surface sediment facies map and the generalized dynamical patterns deduced by Doyle and Spark (1980) using traditional sediment textural and compositional parameters and single moment method statistics. The addition of multivariate techniques suggested relationships among variables which were subtle and not otherwise readily apparent. Mapping of Q mode clusters based upon sediment texture alone showed a patchy distribution of sediment classes within the traditional descriptive facies. A seasonal variation in sediment texture at several stations was also revealed which we have attributed to the reworking of the bottom and sediment transport by hurricanes and winter frontal storm systems which sweep across the shallow shelf. Based upon first-order trend surface analysis Q-mode ordination and stepwise linear regression analysis we have interpreted that total organic carbon content, not the amount of fine grained sediment present nor the clay mineralogy, is the most important parameter affecting the distribution of the trace metals Ba, Cr, Cu, Fe, Pb, and Zn. These relationships suggest to us that organic

complexing with trace metals is important in the eastern Gulf margin sediments. Finally a strong relationship between the group of trace metals Ba, Pb, Zn, Cd, and CaC03 shown by these analyses may be the result of biological uptake in the deeper portions of the study area and/or incorporati...

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ACC 276; TYPE; YEAR 1977;
DOYLE, L.J.; BIRDSALL, B.; HAWARD, G.;
LEHMAN, L.; SZYDIK, S.; WARREN, E.;
BASELINE MONITORING STUDIES, MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF. 1975-1976.

BIBL BUREAU OF LAND MANAGEMENT. WASHINGTON, DC. 14 P.

KEYWORD: clay mineralogy, geology, continental shelf, sediment, MAFLA, sediment distribution

ABSTRACT: Not available.

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ACC 2263; TYPE P; YEAR 1964
DRAGOVICH, A.; KELLY, J.A., JR.;
ECOLOGICAL OBSERVATIONS OF MACROINVERTEBRATES IN TAMPA BAY, FLORIDA 1961-1962.

BIBL BULL. MAR. SCI. GULF CARIBB. 14(1):74-102.

KEYWORD: invertebrate, sponge, crustacean, echinoderm, temperature, salinity, mollusc, pink shrimp, blue crab, annelid, echinoderm

ABSTRACT: A checklist of macroinvertebrates observed in Tampa Bay, which included 78 genera and 82 species of sponges, annelids, sipunculids, decapod crustaceans, gastropods, pelecypods, cephalopods, echinoderms and ascidians, was presented. The occurrence, distribution, and relation to bottom type of these organisms were discussed. The observed temperature and salinity ranges for most of the organisms were given.

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ACC 355; TYPE; YEAR 1965
DRENNAN, K.L.;
SURFACE CIRCULATION IN THE NORTHEASTERN GULF OF MEXICO.

BIBL GULF COAST RESEARCH LABORATORY, OCEANOGRAPHY SECTION, OCEAN SPRINGS, MS. TECHNICAL REPORT NO.1. 116 PP.

KEYWORD: circulation, coastal water, physical process, water mass

ABSTRACT: Not available.

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ACC 356; TYPE; YEAR 1968
DRENNAN, K.L.;
HYDROGRAPHIC STUDIES IN THE NORTHEAST GULF OF MEXICO.

BIBL GULF SOUTH RESEARCH INSTITUTE, ENVIRONMENTAL SCIENCE AND ENGINEERING LABORATORIES, NEW IBERIA, LA. TECHNICAL REPORT 68-0-1. 111 PP.

KEYWORD: circulation, continental shelf, currents, hydrography, physical process, river discharges

ABSTRACT: Not available.

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ACC 854; TYPE; YEAR 1973
DREYER, C.F.;
SOME ASPECTS OF DISSOLVED AND PARTICULATE ORGANIC CARBON IN NEARSHORE ENVIRONMENTS OF THE GULF OF MEXICO.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL. 88 P.

KEYWORD: carbon, salinity, organic carbon suspended

ABSTRACT: 32 stations in the Gulf of Mexico between the Mississippi River and south Florida were sampled 4 times during 1972. Water samples were analyzed with a total carbon analyzer for dissolved and particulate organic carbon.

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ACC 2506; TYPE P; YEAR 1976
DUERR, E.O.;
OXYGEN CONSUMPTION STUDIES ON THE PINK SHRIMP, PENAEUS DUORARUM, AS A FUNCTION OF ACTIVITY, SIZE, WATER TEMPERATURE, AND FLOW, WITH NOTES ON STARVATION AND SAND SUBSTRATE EFFECT.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 119 P.

KEYWORD: Dade, pink shrimp, temperature, growth, dissolved oxygen, stress

ABSTRACT: Measurements of 02 consumption rates of Penaeus duorarum revealed an active rate at night and a resting rate during the day. Water flow, temperature, specimen size, molting rates, growth rates, and death rates were related to 02 consumption.

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ACC 800: TYPE; YEAR 1979
DUGAS, R.; GUILLORY, V.; FISCHER, M.;
OIL RIGS AND OFFSHORE SPORT FISHING IN LOUISIANA.

BIBL FISHERIES 4(6):2-10.

KEYWORD: artificial habitat, drilling rig, gas, oil, socioeconomic, sport fishery, structure

ABSTRACT: The authors offer a discussion of the function of oil production platforms as artificial reefs for sport fishing. They discuss the effectiveness of the structures as attractive habitat for numerous, otherwise locally unknown sports species. As well, the authors subdivide the oil rigs and associated finfish species into nearshore "green water" and offshore "blue water" assemblages, and present a summary of the dominant and/or most desirable species.

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ACC 1056: TYPE; YEAR 1976
DUKE, T.W.;
PESTICIDES IN AQUATIC ENVIRONMENTS; AN OVERVIEW.

IN: M.A.Q. KHAN, ED. PESTICIDES IN AQUATIC ENVIRONMENTS. P.1-8.

BIBL PLENUM PRESS. NEW YORK, NY.

KEYWORD: bioaccumulation, biology, biomagnification, ecology, pesticide, toxicology

ABSTRACT: The fate and transportation of pesticides in the aquatic environment are discussed. The food chain relationships and biomagnification through the food chain are diagrammed.

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ACC 2223; TYPE P; YEAR 1977
DUNCAN, J.L.;
SHORT-TERM EFFECTS OF STORM WATER RUNOFF ON THE EPIBENTIC COMMUNITY OF A NORTH FLORIDA ESTUARY (APALACHICOLA, FLORIDA).

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: storm, biomass, benthic community, abundance, sediment, grain size, salinity, temperature, DO, blue crab, river discharge

ABSTRACT: The short term effects of stormwater runoff on benthic community structure was investigated in Apalachicola Bay, Florida. Acidic runoff resulted in water with a low pH, high color, lowered dissolved oxygen, and decreased salinity. During periods of runoff benthic community biomass and abundance decreased significantly. Dominant species, Anchoa mitchelli, Cynoscion arenarius, Penaeus setiferus, usually avoided areas affected by runoff, though certain species, such as juvenile Callinectes sapids, may be attracted to these areas.

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ACC 2013; TYPE P; YEAR 1975
DUSTAN, P.;
VARIABILITY IN BUILDING BY REEF CORALS.

BIBL FLA. SCI. 38(SUPPL. 1):21.

KEYWORD: reef, coral, species differentiat, diversity

ABSTRACT: Ecological variability of corals is discussed in terms of the symbiotic relationship of the coelenterates and the zooxanthellae in hermatypic corals. Phenotypic variation of corals is due to variability both physiological and genetic in the animal host and the algal symbiant. Data here support the ecotype concept of species differentiation and that natural selection acts on both the animal and plant genomes. Coevolution may allow coral colonies the diversity of ecotypes.

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ACC 2402; TYPE P; YEAR 1977
DUSTAN, P.;
VITALITY OF REEF CORAL POPULATIONS OFF KEY LARGO, FLORIDA: RECRUITMENT AND MORTALITY.

BIBL ENVIRON. GEOL. 2:51-58.

KEYWORD: Monroe, reef, coral, recruitment, mortality, sediment

ABSTRACT: A study was conducted to gather data to provide information for a predictive statement about the future of reefs in the Keys area of southern Florida. Physical damage, algal destruction, animal predation, sediment damage, and disease were found to be the 5 major causes of coral mortality. Sediment damage occurs when particles are large and the sedimentation rate is high, and the coral cannot cleanse itself. Furthermore, algae and bacteria that become established on corals can expand over the colony, smothering it. Other examples of destruction were given and aspects of population growth and colonization were discussed.

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ACC 2403; TYPE P; YEAR 1967
EARLEY, C.F.;
THE SEDIMENTS OF CARD SOUND, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: Monroe, sediment, grain size

ABSTRACT: The distribution of textural and compositional characteristics of sediment samples from Card Sound, Florida was determined from collections made during the spring and summer of 1966. Comparisons of the sediments from the sound with those of the adjacent shelf revealed considerable differences in

sediment composition and grain size. Trends in the distribution of grain size, sorting, and composition are cited for sediments from both the sound and shelf.

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ACC 160; TYPE; YEAR 1976
EDWARDS, R.H.; OVERSTREET, R.M.;
MESENCHYMAL TUMORS OF SOME ESTUARINE FISHES OF THE NORTHERN GULF OF MEXICO. I. SU CUTANEOUS TUMORS, PRO A LY FI RASARCOMAS, IN THE STRIPED MULLET. MUGIL CEPHALUS.

BIBL BULL. MAR. SCI. 26(1):33-40.

KEYWORD: biology, fish, histology, tumor, mullet

ABSTRACT: We report fibrous tumors occurring in the subcutaneous tissues of five striped mullet taken from Mississippi Sound. These nonpendunculated tumors were associated with ulceration of the overlying integument. Affected mullet exhibited 1 to 10 tumors on most surface-areas of the body, excluding the fins. Consisting primarily of fibroblast-derivatives, these well- to poorly- differentiated tumors are considered pathologically malignant, i.e., fibrosarcomas. Invasion into and nearly through the fascia overlying the muscle, focal necrosis, and cellular atypia support this interpretation. Metastases were not observed. Thus, these tumors could represent benign fibromatoses or fibromas. We suggest a possible relationship between these neoplasms in the mullet and increasing pollution in Mississippi Sound.

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ACC 832; TYPE; YEAR 1967
EDWARDS, J.C.;
PRODUCTION OF THE MARINE SHRIMP (PENAEUS FLUVIATILIS SAY AND PENAEUS AZTECUS IVES) IN TEXAS AND LOUISIANA WATERS, AND THE RELATION OF RAINFALL AND FRESH WATER DRAINAGE.

BIBL MASTER'S THESIS. UNIVERSITY OF MISSISSIPPI, OXFORD, MS. 43 PP.

KEYWORD: benthic fauna, precipitation, river discharge, brown shrimp, salinity, water quality, fishery, shrimp fishery

ABSTRACT: The relationship between rainfall and catches of white and brown shrimp was studied between 1927 and 1964 off the coast of Texas and Louisiana. Any correlation between rainfall amount and catches of either species was documented as well as a relationship between catch size and river discharge....

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ACC 890; TYPE; YEAR 1975
EDWARDS, N.;
ESCAM IA AY PHYSICAL OCEANOGRAPHY.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE. FL. 100 PP.

KEYWORD: currents, salinity, temperature, physical oceanography

ABSTRACT: Data on salinity, temperature and current speed and direction were collected from 18 stations in Escambia Bay, Florida from July, 1973 to November, 1973. Measurements were made at 2 foot intervals from surface to bottom.

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ACC 2088; TYPE U; YEAR 1975
EG&G ENVIRONMENTAL CONSULTANTS (WALTHAN, MA);
PHYSICAL, CHEMICAL LAND IOLOGICAL INVESTIGATIONS IN THE GULF OF MEXICO. PREPARED FOR E>I DUPONT DE NEMOURS & CO., INC. WILMINGTON, DE.

BIBL.

KEYWORD: biological, physical, chemical, benthic, temperature, salinity, DO, currents, light, nutrient, metal, baseline study

ABSTRACT: These investigations were designed by DuPont and the EPA to provide baseline biological, physical, and chemical data at a proposed disposal site and at continental shelf stations. Plankton and benthos species (only at shelf stations) were enumerated. Annelids represented the greatest percentage of organisms collected (36.6%). Arthropods were second (22.9%), followed by molluscs (14.6%), cnidarians (8.7%), echinoderms (6.4%), ectoprocts (5.5%), chaetognaths (3.7%) and lower chordates (1.8%). Further analysis of benthos was not attempted because of the low numbers of species collected in the single collection reported.

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ACC 2507; TYPE P; YEAR 1977
EICHLER, L.W.,
ENTHIC INFAUNAL ASSEM LAGES ASSOCIATED WITH TURTLE GRASS (THALASSIA TESTUDINUM KONIG) IN ISCAYNE AY, FLORIDA

BIBL MASTER'S THESIS. FLORIDA ATLANTIC UNIVERSITY. 67 P

KEYWORD: Dade, benthic, infauna, assemblage, seagrass

ABSTRACT: Thalassia testudinum and adjacent open sandy areas were studied in Biscayne Bay to determine the faunal assemblages of each site. Distinct communities were associated with each site. Thalassia

beds supported a more dense and diverse population due to availability of detrital food matter and protection from predators.

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ACC 2215; TYPE P; YEAR 1972
EIDEMILLER, J.A.;
MARINE MEADOWS OF FLORIDA: A LOOK AT TURTLE GRASS COMMUNITIES.

BIBL BULL. AM. LITT. SOC. 7(4):22-25

KEYWORD: seagrass, temperature, mollusc, crustacean, fish

ABSTRACT: This report describes the diverse and abundant fauna thriving in a Florida, seagrass community. Among those species described are sea horses, octopi, hermit crabs, horseshoe crabs, scallops, and juvenile commercial and sport fishes.

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ACC 2216; TYPE P; YEAR 1972
EIDEMILLER, J.A.
SIGNIFICANT ASSOCIATIONS OF THE MOTILE EPI ENTHOS OF THE TURTLE GRASS EDS OF ST. JOSEPH'S AY, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: behavior, fish, invertebrate, seagrass

ABSTRACT: The technique (devised by E.W. Fager) for the determination of statistically significant recurrent groups of species was applied to quantitative samples of the motile epibenthic fauna of the turtle grassbeds on St. Josephs Bay. An attempt was made to correlate the results of this procedure with behavioral interactions as they were observed in the field by means of SCUBA diving. Seventy species of small fishes and invertebrates were collected in the first sample. Sixty two species were collected in the second sample. Recurrent groups were discussed in terms of (1) affinities between groups; (2) relationships of associates to their groups; (3) differences and similarities within the larger recurrent groups;(4) possible significance of the two species groups, and characteristic species not grouped. A comparison of the two seasonal samples was made.

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ACC 2196; TYPE P; YEAR 1976
EISEMAN, N.J.; BENZ, M.C.; SERBOUSEK, D.E.;
STUDIES OF THE ENTHIC PLANTS OF THE INDIAN RIVER REGION.

BIBL IN: HARBOR BRANCH CONSORTIUM INDIAN RIVER COAST. ZONE STUDY, 1975-1976 CHAPTER 6. ANNUAL REPORT VOLUME 1.

KEYWORD: benthic, algae, drift algae, community, continental shelf, model

ABSTRACT: Two hundred and four specific and subspecific taxa of marine algae were identified (55 Chlorophyta, 23 Phaeophyta and 126 Rhodophyta) primarily from the drift algae community and from the continental shelf at depths greater than 30 m. Fifteen new geographic records and 3 new taxa are reported. Sixty three species of algae were found in the drift community. A preliminary, model of the seasonal dynamics of Halodule wrightii based on data from 1974-1975 was tested for predictive capability. The model successfully predicted the standing crop in about 50% of the cases for a partial year's data from 1976. Partial and multiple correlation coefficients are given for effects of environmental parameters on biomass of H. wrightii.

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ACC 784; TYPE; YEAR 1972
EL-SAYED, S.Z.;
PRIMARY PRODUCTIVITY AND STANDING CROP OF PHYTOPLANKTON IN THE GULF OF MEXICO.

IN: V.C. BUSHNELL, ED. CHEMISTRY, PRIMARY PRODUCTIVITY AND BENTHIC ALGAE OF THE GULF OF MEXICO, SERIAL ATLAS OF THE MARINE ENVIRONMENT, FOLIO 22.
BIBL AMERICAN GEOGRAPHIC SOCIETY, NY. P. 8-13.

KEYWORD: biology, biomass, phytoplankton, standing crop, chlorophyll, primary productivity, algae

ABSTRACT: This work is a general overview of phytoplankton in the Gulf of Mexico. Measurements on primary productivity, biomass, and standing crop were made. Data is presented on average chlorophyll (mglm3) and average C(14) uptake (mgC/m(3)/hr).

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ACC 2264; TYPE P; YEAR 1961
ELDRED, B.; INGLE, R.M.; WOODBURN, K.D.; HUTTON, R.F.; JONES, H.;
IOLOGICAL O SERVATIONS ON THE COMMERCIAL SHRIMP, PENAEUS DUORARUM URKENROAD. IN FLORIDA WATERS.

BIBL FLORIDA STATE BOARD OF CONSERVATION. PROFESSIONAL PAPER SERIES NUMBER 3. 139 P.

KEYWORD: biology, depth, development, migration, behavior, temperature, salinity, wind, tide, pink shrimp

ABSTRACT: Since 1955 the Florida Stare Board of conservation has conducted comprehensive studies on the biology of Penaeus duorarum. Collected specimens were combined into three size groups: 1) specimens smaller than 50 mm, which include the very small post-larvae and young juveniles; 2) specimens between 50 mm and 79 mm. which include older juveniles and subadults; and 3) specimens 80 mm and larger, which are mostly adults.

The average size of the shrimp relative to depth was discussed as was the relation of temperature to distribution, spawning, and population densities. Other biological aspects covered in this report include sex size disparity, rate of sexual development, migration, behavior, diet, growth and some parasites of the shrimp.

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ACC 2508; TYPE P; YEAR 1972
ELDRED, B.; FUTCH, C.R.; INGLE, R.M.;
STUDIES OF JUVENILE SPINY LO STERS, PANULIRUS ARGUS, IN ISCAYNE AY, FLORIDA.

BIBL FLORIDA DEPARTMENT OF NATURAL RESOURCES MARINE RESEARCH LABORATORY. SPECIAL SCIENTIFIC REPORT NO. 35. 15 P.

KEYWORD: Dade, spiny lobster, recruitment, seagrass

ABSTRACT: A total of 1,464 juvenile spiny lobsters (Panulirus argus), ranging from 6 to 75 mm carapace length (CL), were captured in commercial bait trawls from Biscayne Bay, Florida during 1968-1969. Habitats consisted of sand/mud bottoms with dense stands of Thalassia testudinum, Diplanthera (Halodule) wrightii, Acetabularia crenulata, Laurencia obtusa, Penicillus capitatus, and Udotea conglutinata. Only immature lobsters were associated with inshore sand/mud, alga/phanerogam habitat. Small juveniles (6-10 mm CL) were present year round, with recruitment maxima in spring and fall. They grew 5 mm CL per month during their 9 to 10 months in the nursery.

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ACC 4239; TYPE P; YEAR 1976
ELVERS, D.; JOHNSTON, J.B.;
IDENTIFICATION AND MAPPING OF FISHING ANKS ON THE OUTER CONTINENTAL SHELF AND THE GULF OF MEXICO.

BIBL CARIBBEAN FISHERIES INSTITUTE. MIAMI, FL. USA 35-48.

KEYWORD: fishery, fish, distribution, zoogeography

ABSTRACT: Not available.

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ACC 4297; TYPE P; YEAR UNKN
ELVERS, D.J.; REBMAN, J.; LEHMAN, J.; MOORE, R.;
NEW ENVIRONMENTAL MAPS FOR GULF OF MEXICO OCS PROGRAMS.

BIBL

KEYWORD: geology, continental shelf, distribution

ABSTRACT: Not available.

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ACC 622; TYPE ; YEAR 1968
EMERY, K.O.;
RELICT SEDIMENTS ON CONTINENTAL SHELVES OF THE WORLD.

BIBL AM. ASSOC. PETROL. GEOL. BULL. 52(3):445-464.

KEYWORD: Pleistocene, continental shelf, geology, sediment distribution

ABSTRACT: Not available.

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ACC 2167; TYPE P; YEAR 1978
EMILIANI, C.; HUDSON, J.H.; SHINN, E.A.; GEORGE, R.Y.; LIDZ, B.;
OXYGEN AND CAR ON ISOTOPIC GROWTH RECORD IN A REEF CORAL FROM THE FLORIDA KEYS AND A DEEPBSEACORAL FROM LAKE PLATEAU.

BIBL SCIENCE 202:627-629.

KEYWORD: growth, coral, temperature, metabolism, carbon

ABSTRACT: A 30 year (1944-1974) growth of Montastrae annularis from Hen and Chickens Reef, Florida Keys, exhibited annual variation in the abundance of carbon-13 and oxygen-18 with an inverse relationship between the two isotopes. Annual dense bands, characterized by carbon-13 and oxygen-16, are formed during summer. Stress bands are created during unusually severe winters and are characterized by carbon-13 and oxygen-18. The temperature effect on the oxygen-18/oxygen-16 ratio is overshadowed by an isotopic affect of zooxanthellae metabolism. In the deep sea ahermatypic coral, Bathypsannia tintinnabulum, the abundance of carbon-13 and oxygen-18 is inversely related to growth rate, with both carbon and oxygen isotopes approaching equilibrium with increasing skeletal age.

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ACC 2238; TYPE P; YEAR 1968
ENG. L.L.;
A STUDY OF THE IOLOGY OF THE PINK SHRIMP, PENAEUS DUORARUM URKENROAD, IN THE CEDAR KEY AREA WITH NOTES ON THE NONBCOMMERCIALSHRIMP.

BIBL MASTER'S THESIS. UNIVERSITY OF FLORIDA, GAINESVILLE, FL. 49 P.

KEYWORD: biology, pink shrimp, abundance, distribution, temperature, recruitment

ABSTRACT: Penaeus duorarum was studied in the Cedar Key area in order to determine abundance and distribution and the causal factors. Results showed that temperature and the abundance of juveniles were the important factors affecting the abundance of shrimp. Shrimp were less abundant during colder winter months, which may be due to their burrowing for protection from the cold. The recruitment period for P. duorarum is roughly June to November.

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ACC 2404; TYPE P; YEAR 1980
ENGSTROM, N.;
REPRODUCTIVE CYCLES OF HOLOTHURIA (HALODEIMA) FLORIDANA, H. (H.) MEXICANA AND THEIR HY RIDS (ECHINODERMATA; HOLOTHUROIDEA) IN SOUTHERN FLORIDA, USA.

BIBL INT. J. INVERT. REPROD. 2:237-244.

KEYWORD: Monroe, echinodermata, spawning, season

ABSTRACT: A reproductive study of the holothuroids, Holothuria (Halodeima) floridana and H. (H.) mexicana was conducted using monthly collections form the Atlantic side of Key Largo, Florida, from November 1968 to October 1969. Gametogenesis in the 2 species and their hybrids was found to occur during spring and summer with spawning occurring in late summer, followed by resorption of unspawned gametes. The simultaneity of the spawning seasons of the 2 species contributed to the occurrence of hybridization.

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ACC 2405; TYPE P; YEAR 1970
ENGSTROM, N.;
THE REPRODUCTIVE CYCLES, SYSTEMATIC STATUS, AND GENERAL IOLOGY OF HOLOTHURIA (HALODEIMA) FLORIDANA POURTALES, 1851 AND H. (H.) MEXICANA LUDWIG. 1875.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 92 P.

KEYWORD: Monroe, reproduction, biology, length, weight, growth, echinodermata

ABSTRACT: Various aspects of the reproduction system and general biology of Holothuria (Halodeima) floridana were studied in specimens obtained from the Key Largo area. Lengths and widths of animals and wet weights and dry weights were measured. Gametogenesis studies showed highest activities in spring and summer with spawning occurring in the fall. Growth rates are slow and sexual maturation takes at least 2 years. The possibility of hybridization occurring between H. (H.) floridana and H. (H.) mexicana is discussed.

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ACC 484; TYPE; YEAR 1974
ENVIRONMENT CONSULTANTS, INC.;
SOCIOECONOMIC INVENTORY AND ANALYSIS OF THE GULF OF MEXICO REGION. VOLUME 3.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C.

KEYWORD: coastal zone, commercial fishery, pollution, socioeconomic, transportation

ABSTRACT: Not available.

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ACC 600; TYPE; YEAR 1974
ENVIRONMENT CONSULTANTS, INC.;
ENVIRONMENTAL AND SOCIOECONOMIC ASELINE ON THE GULF OF MEXICO COASTAL ZONE AND OUTER CONTINENTAL SHELF: SUPPLEMENTAL I LIOGRAPHY ON ENVIRONMENTAL PROCESSES AND CONDITIONS IN THE GULF OF MEXICO REGION. VOLUME 1.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C.

KEYWORD: bibliography, biology, coastal zone, geology, hydrology, oceanography, continental shelf, physical process, pollution, socioeconomic

ABSTRACT: Not available.

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ACC 601; TYPE; YEAR 1974
ENVIRONMENT CONSULTANTS, INC.;
ENVIRONMENTAL AND SOCIOECONOMIC ASELINE ON THE GULF OF MEXICO COASTAL ZONE AND OUTER CONTINENTAL SHELF: SUPPLEMENTAL I LIOGRAPHY ON ENVIRONMENTAL PROCESSES AND CONDITIONS IN THE GULF OF MEXICO REGION. VOLUME 2.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C.

KEYWORD: bibliography, biology, coastal zone, geology, hydrology, , oceanography, continental shelf, physical process, pollution, socioeconomic

ABSTRACT: Not available.

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ACC 2322; TYPE P; YEAR 1979
ENVIRONMENTAL QUALITY LABORATORY, INC.
HYDRO IOLOGICAL MONITORING JANUARY 1976 THROUGH OCTO ER 1978. LOWER PEACE RIVER AND CHARLOTTE HAR OR.

BIBL VOL. II, AS PER SW FLS. WATER MANAGEMENT DIST. CONSUMPTIVE USE PERMIT. DEC. 10, 1975, FOR THE PEACE RIVER REG. WATER TREAT. PLANT. REPT. TO GEN. DEV.

KEYWORD: Charlotte, biological, temperature, salinity, DO, tides

ABSTRACT: Volume II contains abiotic and biological data for Charlotte Harbor and the lower Peace River from 1976 to 1978. A roster of species composition and the number of individuals collected and a species list of terrestrial flora observed along the lower Peace River are reported., The natural histories, of the following species are described: Luidia, Pectinaria, Glottidia, Corbicla, Polynesdoa, Grandidierella, Corophium, Cyathura, Edotea, Laeoneris, Polydora and Amphicteis.

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ACC 2322; TYPE P; YEAR 1979
ENVIRONMENTAL QUALITY LABORATORY, INC.
HYDRO IOLOGICAL MONITORING JANUARY 1976 THROUGH OCTO ER 1978. LOWER PEACE RIVER AND CHARLOTTE HAR OR.

BIBL VOL. II, AS PER SW FLS. WATER MANAGEMENT DIST. CONSUMPTIVE USE PERMIT DEC. 10, 1975, FOR THE PEACE RIVER REG. WATER TREAT. PLANT. REPT. TO GEN. DEV.

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ABSTRACT: Volume II contains abiotic and biological data for Charlotte Harbor and the lower Peace River from 1976 to 1978. A roster of species composition and the number of individuals collected and a species list of terrestrial flora observed along the lower Peace River are reported., The natural histories, of the following species are described: Luidia, Pectinaria, Glottidia, Corbicla, Polynesdoa, Grandidierella, Corophium, Cyathura, Edotea, Laeoneris, Polydora and Amphicteis.

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ACC 2323; TYPE P; YEAR 1979
ENVIRONMENTAL QUALITY LABORATORY, INC.;
HYDRO IOLOGICAL MONITORING JANUARY 1976 THROUGH OCTO ER 1978. LOWER PEACE RIVER AND CHARLOTTE HAR OR.

BIBL VOL. II. AS PER SW FL WATER MGMT. DIST. CONSUMPTIVE ESE PERMIT. DEC 10, 1975. FOR THE PEACE RIVER REG. WATER TREAT. PLANT RPT GEN. DEV UTIL INC

KEYWORD: Charlotte, physical, biological, nutrient, wind, primary production, shrimp, fish, temperature, salinity, DO, tide, crab

ABSTRACT: The influence of river flow on physical change and biological productivity were studied. Increased river flow during the wet season was found to result in vertical density stratification of the water column and also in lowered salinity levels in Charlotte Harbor. Vertical stratification was found to reduce mixing with a gradual depletion of dissolved oxygen occurring in the bottom waters. The primary production in the surface layers was determined to be stimulated enrichment with essential nutrients provided in part by photosynthesis in the surface layers. Primary producers were also determined to benefit from reduced predation by mobile predators that are forced by decreased DO and salinity levels to leave the upper harbor. In the fall, when decreased river flow and higher surface winds were noted to cause vertical mixing, mobile predators such as juvenile shrimp, crabs and fish move into the upper harbor to feed upon the abundant benthic food supply.

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ACC 4158; TYPE P; YEAR 1985
ENVIRONMENTAL SCIENCE & ENG., INC. AND ECOLOGICAL RES. ASSOCIATES, INC.;
SOUTHWEST FLORIDA SHELF ENTHIC COMMUNITIES STUDY YEAR 4 ANNUAL REPORT (CONTRACT #14B12B0001B30071).

BIBL SUBMITTED TO THE MINERALS MANAGEMENT SERVICE, NEW ORLEANS, LA. 3 VOL.

KEYWORD: biological, epifauna, physical oceanography, infauna, fish, macroalgae, currents, wave, tide, hydrography, sediment, recruitment, fouling, population dynamics

ABSTRACT: This report presents the findings of the fourth year of a 6-year study of the southwest Florida outer continental shelf benthic communities. The emphasis of the study was on the physical and biological processes that occur in soft, hard, and live bottom communities and an assessment of how these processes and communities might be affected by offshore oil and gas development. Infauna, epifauna, macroalgae, fish, sediments, salinity, temperature, dissolved oxygen, transmissivity, and Ph, were sampled using a variety of methods including underwater television, benthic still photography, CTD hydrographic sampling, trawling, and dredging. In addition, continuous monitoring at 5 of the 15 stations of near-bottom temperature, ocean currents, waves, tides, sediment transport, epifaunal recruitment, and fish behavior was accomplished using instrumented arrays equipped with current meters, wave and tide gages, sediment traps, fouling plates, and time-lapse cameras. The biological data collected identified a diversity of taxa varying from a very dense epifaunal hard-bottom community in shallow water (e.g. over 100 species of sponges) to a sparse crinoid assemblage at the shelf break in 125 m of water. The shallow water communities are subject to greater natural stresses due to higher rates of sediment resuspension (up to 1,000 metric tons per square kilometer per day), higher frequency of wave induced water velocities, and considerable seasonal temperature variation. In spite of these stresses, these communities flourish and exhibit a recruitment rate that is higher than the stations located in water deeper than 50 M.

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ACC 4166; TYPE U; YEAR 1985
ENVIRONMENTAL SCIENCE & ENGINEERING, INC.;
SOUTHWEST FLORIDA SHELF ECOSYSTEMS STUDY: SUMMARY OF 5BYEARPROGRAM ACTIVITIES.

BIBL PREPARED FOR MINERALS MANAGEMENT SERVICE, NEW ORLEANS, LA.

KEYWORD: SWFLA, physical, chemical, epifauna, macroalgae, demersal fish, remote sensing, photodocumentation

ABSTRACT: This report summarizes the objectives and the activities of the 6-year Southwest Florida Ecosystem Program. This report provides a reference documenting all sampling activities of the program but does not attempt to present results. Sampling activities up to the fifth year are itemized, and the, planned field efforts for the remainder of the program are presented.

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ACC 782; TYPE ; YEAR 1972
ERNST, L.H.; BARBOUR, R.W.;
TURTLES OF THE UNITED STATES.

BIBL UNIVERSITY OF KENTUCKY PRESS, LEXINGTON, KY. 347 PP.

KEYWORD: reptilia, abundance, biology, ecology, feeding habit, life history, species composition, turtle

ABSTRACT: Not available.

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ACC 2294; TYPE P; YEAR 1983
ESTEVEZ, E.D.;
AN ECOLOGICAL RECONNAISSANCE OF THE GRAND CANAL, SIESTA KEY, FLORIDA.

BIBL PREPARED FOR OFFICE OF COASTAL ZONE MANAGEMENT, SARASOTA, CO BY MOTE MARINE LABORATORY, SARASOTA, FL. 19 P.

KEYWORD: Sarasota, hydrography, biology, bathymetry, benthic, temperature, salinity, DO

ABSTRACT: The hydrography and biology of the system of man-made canals on Siesta Key, Florida were analyzed. Studies included bathymetry, sedimentation and benthic fauna. Benthic species were indicative of oxygen depletion and organically rich sediments. Suggestions are made to increase tidal flow in the canals.

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ACC 2324; TYPE P; YEAR 1980
ESTEVEZ, E.D.;
CHECKLISTS OF ESTUARINE AND MARINE IOTA FROM CHARLOTTE HAR OR, FLORIDA AND ADJACENT WATERS: FAUNA V, CRUSTACEANS.

BIBL MOTE MARINE LABORATORY, SARASOTA, FL. STAFF REPORT. DRAFT.

KEYWORD: Charlotte, crustacean

ABSTRACT: A checklist of species reported in published and unpublished studies in or near Charlotte Harbor, Florida is presented. One hundred eighty-one verified species (reported from the Charlotte Harbor Estuarine complex) and 63 probable species (crustaceans found by studies in adjacent estuarine and Gulf waters) were identified. Corrections for synonomy were not made.

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ACC 2325; TYPE P; YEAR 1984
ESTEVEZ, E.D.;
A REVIEW OF SCIENTIFIC INFORMATION, CHARLOTTE HAR OR ECOSYSTEM COMPLEX.

BIBL MOTE MARINE LABORATORY REVIEW SERIES NUMBER 3. REPORT TO SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL. 2 VOL.

KEYWORD: Charlotte, meteorology, geology, hydrology, chemistry, biology

ABSTRACT: The original scientific literature of the Charlotte Harbor region and its component estuarine areas was reviewed and organized into a primary reference document. About 1,200 unique references were examined. Areas included the region, Gasprilla Sound, Charlott Harbor, Pina Island Sound and Matlacha Pass. and San Carlos and Estero Bays. Topics for each area included land use. meteorology, geology, hydrology, water chemistry, and biology. Study needs were identified for future support.

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ACC 1031; TYPE; YEAR 1983
ETTER, P.C;
HEAT AND FRESHWATER UDGETS OF THE GULF OF MEXICO.

BIBL J. PHYS. OCEANGR. 13:2058-2069.

KEYWORD: evaporation, heat budget, heat storage, hydrology, loop current, model, precipitation, water budget, physical oceanography

ABSTRACT: Monthly mean oceanic heat storage rates (QT) for the upper 200 meters of the Gulf of Mexico are calculated directly from multi-annual vertical temperature data. The annual march of QT exhibits a minimum of - 170 W m(-2) in January and a maximum of 170 W m(-2) in May. Spatial distributions of QT are contoured on maps for February, May, August and November. These maps elucidate climatic features of air-sea interactions occurring over the Loop Current and also near the shelf edges of the northern Gulf. Three previous climatic heat budget studies encompassing the Gulf of Mexico are examined to determine the surface heat exchange: Budyko's and Bunker's-supplemented with more detailed but unpublished monthly results; and studies by Hastenrath and Lamb. While Budyko's values provide a familiar basis for comparisons, the more recent unpublished results of Bunker and Hastenrath and Lamb are averaged together to define the monthly mean radiative (QR) and turbulent (QA) heat exchanges in the Gulf of Mexico. Monthly mean advective heat changes (QV) are then derived as residuals in the heat budget equation (QV = QR - QA - QT). These QV values are partially verified by direct computations of the monthly mean vertical and horizontal components of heat advection according to the divergent heat budget equation developed by Emery. The residual QV values reinforce the observations of Elliott concerning the role of detached anticyclonic Loop Current rings in redistributing heat with the Gulf of Mexico.

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ACC 2295; TYPE P; YEAR 1978
EVANS, M.; BRUNGARDT, T.; EVANS, R.;
SHORELINE ANALYSIS OF SARASOTA COUNTY AY SYSTEMS WITH REGARD TO REVEGETATION ACTIVITIES.

BIBL NEW COLLEGE OF THE UNIVERSITY SOUTH FLORIDA, ENVIRONMENTAL STUDY PROGRAM, SARASOTA COUNTY. C.E.T.A. PROGRAM AND SARASOTA BD. CO COMM. 71 P.

KEYWORD: Sarasota, coastal, estuary, remote sensing, photodocumentation, aerial survey

ABSTRACT: An inventory and evaluation of the estuarine resources of the study area was prepared. Aerial photographs from 1948 to 1974 were used in resource mapping. Methods for growing and transplanting shoreline vegetation were described. A shore line preference survey showed that respondents preferred natural or vegetated shorelines.

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ACC 2296; TYPE P; YEAR 1977
EVANS, R.K.;
TECHNIQUES AND SEASONAL GROWTH RATE OF TRANSPLANTED WHITE MANGROVES.

BIBL IN: PROCEEDINGS OF THE FOURTH ANNUAL CONFERENCE ON RESTORATION OF COASTAL VEGETATION IN FLORIDA. P. 77-105.

KEYWORD: Sarasota, flora, growth

ABSTRACT: A transplantation study of the white mangrove (Laguncuaira racemose) was conducted on Siesta Key, Florida from February 1976 through March 1977. Growth rates were found to vary significantly with the months of transplantation. Spring plantings resulted in the highest survival and growth rates of adult plants. Growth rates were greatly influenced by distance from shoreline; plants near the shoreline that were not completely inundated experienced the highest growth rates. Root growth exceeded branch growth in all experiments.

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ACC 655; TYPE; YEAR 1981
EVERTS, C.H.;
HUMAN INFLUENCE ON THE SEDIMENT UDGET OF A ARRIER ISLAND.

IN: PROCEEDINGS OF THE CONFERENCE COASTAL ZONE 1980. P. 863-880

BIBL AMERICAN SOCIETY OF CIVIL ENGINEERS, HOLLYWOOD, FL.

KEYWORD: barrier island, coastal zone, erosion, geology, management, physical process, sedimentation, sediment transport

ABSTRACT: Not available.

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ACC 2353; TYPE P; YEAR 1973
EVINK, G.L.;
THE ROLE OF MANGROVE ECOSYSTEMS: IOMASS AND DIVERSITY OF ENTHIC MACROINVERTE RATES OF FAKA UNION AND FAKAHATCHEE AYS, FLORIDA.

BIBL U.S. DEPARTMENT OF INTERIOR, BUREAU OF SPORT FISHERY AND WILDLIFE, SOUTH FLORIDA ENVIRONMENTAL PROJECT ECOLOGICAL REPORT NO. D1-SFEP, P. 74.

KEYWORD: Collier, biomass, diversity, benthic, invertebrate

ABSTRACT: A comparative study of the benthic macroinvertebrates of Faka Union and Fakahatchee Bays was conducted. The benthic macroinvertebrate biomass data revealed no significant differences between the bays. The analysis of the two bays showed that they have similar species with a small difference in species diversity.

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ACC 2354
TYPE P; YEAR 1974
EVINK, G.L.;
MACRO ENTHOS COMPARISONS IN MANGROVE ESTUARIES.

IN: BIOLOGY AND MANAGEMENT OF MANGROVES. G.E. WALSH, S.C. SNEDAKER & H.J. TEAS (EDS.).

BIBL UNIVERSITY OF FLORIDA, GAINESVILLE, FL. P. 256-285.

KEYWORD: Collier, biology, management, diversity

ABSTRACT: Collection and study of macrobenthos was conducted in Fakahatchee and Faka Union Bays during 1972 and 1973. Comparisons of species composition, numbers of individuals, and biomass showed the influence of channelization in the bays. Species diversity was similar for both bays, but species compositions were dissimilar. The estuarine food web is analyzed and discussed.

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ACC 471; TYPE; YEAR 1974
EXXON PRODUCTION RESEARCH COMPANY;
RESEARCH NEEDED TO DETERMINE CHRONIC EFFECTS OF OIL ON THE MARINE ENVIRONMENT.

IN: WORKSHOP PROCEEDINGS, NOVEMBER 4-6. 1974, HOUSTON, TX.

BIBL EXXON PRODUCTION RESEARCH COMPANY, HOUSTON, TX. 43 PP.

KEYWORD: biology, drilling, exploration, industry, oil spill, oil, pollution

ABSTRACT: Not available.

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ACC 615; TYPE; YEAR 1962
FAIRBANK, N.C.;
HEAVY MINERALS FROM THE EASTERN GULF OF MEXICO.

BIBL DEEP-SEA RES. 9:307-338.

KEYWORD: continental shelf, distribution, geology, heavy mineral, sediment

ABSTRACT: A study has been made of the minerals from surface samples of sediments of the Eastern Gulf of Mexico, from the Mississippi River delta to the coast of Florida, and south to 24 degrees 45' N, about the latitude of the Dry Tortugas. Methods of preparation and study are summarized, light and heavy minerals identified, and their distribution discussed. The area has been divided into four sedimentary provinces on tha basis of the mineralogy of the coarse surface sediments: Mississippi River Province, Eastern Gulf Coastal Province, Florida Plateau Province, and Central Province. These provinces are deamed and described, and some speculation offered as to the significance of the minerals present.

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ACC 4197; TYPE P; YEAR 1986
FANG, C.S.; SMITH, S A., JR.;
CLEANING OF THE OCEAN FLOOR NEAR OFFSHORE PLATFORMS IN THE GULF COAST.

BIBL ENERGY PROG. 6(1):37-39.

KEYWORD: petroleum, defaunation, offshore drilling

ABSTRACT: Not available.

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ACC 858; TYPE; YEAR 1973
FANNING, K.A.; PILSON, M.E.;
THE LACK OF INORGANIC REMOVAL OF DISSOLVED SILICA DURING RIVER OCEAN MIXING.

BIBL GEOCHEM. COSMOCHIM. ACTA 37:2405-2415.

KEYWORD: ammonia, carbon, nitrate, nitrite, orthophosphate, salinity, silicate, urea, water temperature, nutrient

ABSTRACT: Forty-nine stations were sampled between New Orleans and Galveston in an effort to describe some aspects of the Mississippi River plume. Samples were collected during December, 1969 on the cruise 152 of the R/V Gosnold. Water samples were filtered and analyzed for silica, organic carbon, orthophosphate, N03, N02, ammonia and urea.

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ACC 2089; TYPE P; YEAR 1979
FANNING, K.A.; BETZER, P.R.; ET AL.;
CHARACTERISTICS OF A SU MARINE GEOTHERMAL SPRING ON THE WEST FLORIDA SHELF.

BIBL FLA. SCI. 42(SUPPL.):21.

KEYWORD: biological, geological, chemical, physical, temperature, salinity, dissolved oxygen, geothermal, hole, nutrient

ABSTRACT: Mud Hole Submarine Spring, a geothermal spring on the west Florida continental shelf was examined in terms of its biological, geological, chemical, and physical aspects. The flow rate of the spring is greater than 2.3 x 10 to the 6th l/day; the discharge rate is apparently influenced by tidal fluctuations. Water temperature at the discharge vent is approximately 36 degrees Celsius, although turbid surface water is often cooler than ambient water. Salinity of undiluted vent water averages 34.9 o/oo, less than surrounding waters. Dissolved oxygen content, pH, and alkalinity of the discharge water are very low. Nitrate, ammonia, and phosphate are present at very low concentrations. Densities of benthic epifauna and nekton appear increased in the spring area. Mud Hole and second spring, Steward Spring, serve as habitats for one or more large loggerhead turtles.

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ACC 4231; TYPE P; YEAR 1982
FANNING, K.A.; CARDER, K.L.; BETZER, P.R.;
SEDIMENT RESUSPENSION Y COASTAL WATERS A POTENTIAL MECHANISM FOR NUTRIENT RECYCLING ON THE OCEANS MARGINS.

BIBL DEEP-SEA RES. PART A OCEANOGR. RES. PAP. 29(8):953-966.

KEYWORD: sediment, nutrient, storm, suspended, nitrate, nitrite, ammonia, silicate

ABSTRACT: Nutrient profiles from the continental shelf of the northeastern Gulf of Mexico indicated considerable near-bottom enrichment in silica and nitrate above coarse sediments east of the Mississippi Delta. Near-bottom waters of the carbonate-rich West Florida Shelf showed no such enrichments. Storm-related suspension apparently produced the enrichments because, in near-bottom waters south of Mobile Bay, silica, nitrate plus nitrite and suspended load increased substantially as a winter storm front passed. Laboratory simulation of resuspension by stirring the supernatant seawater over a clay-rich core produced similar increases in silica and nitrate plus nitrite. with ammonia being the apparent precursor to the nitrate and nitrite. Most of the nutrient increase appeared to come from previously deposited sediments in the early stages of resuspension. Using the ratios of nutrients released to sediments resuspended, calculations indicate that resuspension of as little as 1 mm of shelf sediment could intermittently augment overlying productivity by as much as 100-200%. Resuspension may accelerate nutrient recycling on continental margins.

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ACC 4256; TYPE P; YEAR 1981
FANNING, K.A.; ET AL.;
GEOTHERMAL SPRINGS OF THE WEST FLORIDA CONTINENTAL SHELF: EVIDENCE FOR DOLOMITIZATION AND RADIONUCLIDE ENRICHMENT.

BIBL EARTH PLANET. SCI. LETT. 52(2):345-354.

KEYWORD: carbonate, sediment, geothermal

ABSTRACT: On the sea bed of the West Florida continental shelf about 45 km SSW of Ft. Myers. Florida, and 85-km SUP.2 area has been discovered in which six thermal springs discharge warm, chemically altered seawater from vents and seepage zones. The spring water apparently originates in the subsurface ocean around the Florida Platform and penetrates the highly porous strata of the platform about 500-1000 meters below sea level. It percolates toward the interior of the platform and is geothermally heated to about 40 C enroute. Then it rises along more vertical flow channels and is discharged in warm submarine springs. Beneath the platform, several chemical processes alter the percolating seawater. One process seems to be a secondary dolomitization of the limestone of the platform because, in the discharging seawater, magnesium is lower by 1.7 mmole/kg and calcium higher by 3.6 mmole/kg than in normal seawater with the same chlorinity. Other reactions within the sediments of the platform enrich the spring effluents IOOO-fold in SUP-226 Ra, 10,000-fold in SUP-222 Rn, and 90-fold in SUP-228 Ra compared to the seawater surrounding the platform. Thus, the springs may be important sources of radionuclides for the Gulf of Mexico. The percolating seawater also loses all of its oxygen and nitrate to reduction processes, loses most of its phosphate and 40% of its SUP-238 U, and roughly

quadruples its silica content. Coastal carbonate platforms are fairly common geological features.

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ACC 748; TYPE; YEAR 1979
FAUCHALD, K.; JUMARS, P.;
THE DIET OF WORMS: A STUDY OF POLYCHAETE FEEDING GUILDS.

BIBL OCEANOGR. MAR. BIOL. ANN. REV. 17:193-284.

KEYWORD: polychaete, benthic community, biology, coastal water, detritus, ecology, feeding habit, macrofauna, meiofauna

ABSTRACT: This review summarizes current information about the feeding biology of polychaetous annelids. The authors have organized the information into a limited number of patterns using the guild concept to define patterns. This paper consists of two sections. The first section summarizes current information about food and feeding habits within each polychaete family. The second is an interpretation of the data presented in the first section.

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ACC 4033; TYPE P; YEAR 1956
FEINSTEIN, A.;
CORRELATIONS OF VARIOUS AM IENT PHENOMENA WITH RED TIDE OUT REAKS ON THE FLORIDA WEST COAST.

BIBL BULL. MAR. SCI. 6(3):208-232.

KEYWORD: red tide, meteorology, hydrology, precipitation, tropical storm

ABSTRACT: Investigations were made to determine whether any simple linear correlations exist between red tide outbreaks and various ambient phenomena. Outbreaks were compared with rainfall, tropical disturbances, and runoff. A pattern of cyclic recurrence of outbreaks is presented. An attempt is made to show the path of individual outbreaks. Correlations of red tide outbreaks with runoff and precipitation were too low to be significant however, an indirect relationship may exist. No linear correlations were found between tropical disturbances and red tide outbreaks.

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ACC 4034; TYPE P; YEAR 1983
FELDHAUSEN, P.H.; JOHNSON, D.;
ORDINATION OF TRACE METALS IN SYACIUM PAPILLOSUM (DUSKY FLOUNDER) FROM THE EASTERN GULF OF MEXICO.

BIBL N.E. GULF Scl. 6(1):9-21.

KEYWORD: biology, chemistry, MAFLA, flatfish, demersal fish, trace metal, fish, benthic, bioaccumulation

ABSTRACT: Variations in the metals contents (Ba,Cd,Cr,Cu,Fe,Ni,Pb,V, and Zn) in the skeletal flesh of the demersal fish Syacium papillosum from 12 stations on the relatively unpolluted Mississippi, Alabama, and Florida continental margin are investigated with the aid of Q-moe ordination techniques. Gradient analysis on the station-season ordination shows that Ba, Cu, and Ni explain most of the normal variation. Of these metals only Cu and Ni increased from summer to winter; this increase may be related to decreased metabolism. The decrease of Ba (and Cd) in winter may be diet controlled. Based on ordination synthetic indices, nonparametric statistical tests indicate that the winter trace metal concentrations are multivariately distinct from those of the fall and summer sampling sites; the latter are not statistically distinguishable. Tha trace metal concentrations measured in the demersal fish specimens are weakly correlated (positive) with the metal concentrations measured in the weak acid digest of the study area bottom sediments.

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ACC 4035; TYPE U; YEAR 1982
FELDHAUSEN, P.H.; JOHNSON, D.; PALMER, H.D.; TREFRY, J.H.;
WEAK ACID TRACE METAL FRACTION IN EASTERN GULF OF MEXICO OTTOM SEDIMENTS.

BIBL PRESENTED AT THE 11TH INTERNATIONAL SEDIMENTOLOGICAL CONGRESS (PREPRINT)

KEYWORD: trace metal, sediment, demersal fish, flatfish, MAFLA, fish, carbonate, grain size, geochemistry, continental shelf

ABSTRACT: Variations in the weak acid (partial digest) metal concentrations in bottom sediments from 49 stations on the Mississippi, Alabama, and Florida continental margin are investigated with the aid of ordination and other multivariate statistical techniques. Total iron, carbonate content, clay fraction and water depth correlate well with the overall sediment metal values of pooled station replicated \s over 4 sampling periods. Individual metal concentrations are also correlated with these and other environmental parameters using stewise multiple linear regression techniques. A positive association between the trace metal burdens in the demersal fish Syacium papillosum and the weak acid sediment trace metal concentrations is demonstrated.

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ACC 2014; TYPE P; YEAR 1981
FINDLAY, R.H.;
THE EFFECTS OF THE SAND DOLLAR MELLITA QUINQUIESPERFORATA ON THE ENTHIC MICRO IAL COMMUNITY.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL. 42 P.

KEYWORD: benthic, community, echinodermata, lipid, meiofauna, bacteria

ABSTRACT: Analysis of sediment in which sanddollars (Mellita quinquiesperforata) had fed revealed increases in the oxidized sediment zone and decreases in

amounts of several lipid components. This data and direct counts of the meiofauna indicate selective feeding by Mellita on microeucaryotes and bacteria attached to silt and clay.

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ACC 4036; TYPE P; YEAR 1984
FINUCANE, J.H.; COLLINS, L.A.;
REPRODUCTIVE IOLOGY OF CERO, SCOM EROMORUS REGALIS, FROM COASTAL WATERS OF SOUTH FLORIDA.

BIBL N.E. GULF SCI. 7(1):101-107.

KEYWORD: biology, fish, life history, reproduction, fedundity, spawning area, breeding cycle, coastal, weight

ABSTRACT: Cero, scomberomorus regalis, were collected off south Florida during 1980-81 to determine their reproductive biology. Spawning of cero occurs in coastal water throughout most of the year with a peak in May. Males attain maturity at about 350 mm FL and females at about 380 mm FL. Fecundity estimates from 20 late maturing or rip females ranged from 161.000 ova for a 380 mm fish weighing 558 g to 2,234,000 ova for a 800 mm fish weighing 4,944 g. total weight better indicated fecundity than did fork length. The relationship between fecundity and total weight was expressed by least square equation F -- -1.079 x 10(-1) + (4.342 x 10(-4)) TW. The mean number of ova per gram of fish weight was 362.

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ACC 687; TYPE ; YEAR 1980
FLANDORFER, M.; SKUPLEN, L.; EDS.;
PROCEEDINGS OF A WORKSHOP FOR POTENTIAL FISHERY RESOURCES OF THE NORTHERN GULF OF MEXICO.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-80-012.

KEYWORD: biology, fishery

ABSTRACT: Not available.

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ACC 2406; TYPE P; YEAR 1962
FLEECE, J.B ;
THE CAR ONATE GEOCHEMISTRY AND SEDIMENTOLOGY OF THE KEYS OF FLORIDA AY, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: Monroe, carbonate, geochemistry, sediment, mineralogy, grain size

ABSTRACT: Sediment cores from 5 keys and their associated shoals in Florida Bay, Florida were analyzed for texture and mineralogy. The depositional history of each site is described and comparisons are drawn between the sediment characteristics of the keys and their shoals.

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ACC 707; TYPE; YEAR 1984
FLINT, R.W.; KAMYKOWSKI, D.;
ENTHIC NUTRIENT REGENERATION IN SOUTH TEXAS COASTAL WATERS

BIBL ESTUARINE, COASTAL SHELF SCI. L8:221-230.

KEYWORD: benthic fauna, biology, currents, nutrient, sediment

ABSTRACT: Not available.

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ACC 4206; TYPE P; YEAR 1980
FLINT, R.W.; HOLLAND, J.S.;
ENTHIC INFAUNAL VARIA ILITY ON A TRANSECT IN THE GULF OF MEXICO.

BIBL ESTUARINE & COAST. MAR. SCI. 10(1):1-14.

KEYWORD: assemblage, sediment, polychaete, mollusc, crustacean, community, temperature, salinity, depth, biology, distribution, infauna

ABSTRACT: Macroinfaunal benthos off the South Texas coast of the Gulf of Mexico formed different assemblages distributed according to depth: shallow (22 m), mid-depth (36 to 49 m), and deep water (78 to 131 m). Species composition of shallower stations were less diverse composed of eurytopic and opportunistic species adapted to a fluctuating environment. The deep water benthos, in a more stable environment, had a higher diversity. Sediment composition (high proportions of silt) at the mid-depth stations resulted in dominance of deposit feeders. The environmental gradient was related to a species continuum which changed from polychaete dominated groups in shallow water to deposit feeding molluscs and crustaceans, to a deep water diverse fauna not dominated by any particular group. Environmental heterogeneity, including climatic variability, may be most important in controlling shallow water benthos. In deeper more stable shelf habitats where diversities are

higher and species equilibrium is the case, species interactions may determine community structure.

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ACC 4233; TYPE P; YEAR 1982
FLINT, R.W.; RABALAIS, N.N.;
GULF OF MEXICO SHRIMP PRODUCTION: A FOOD WE HYPOTHESIS.

BIBL U.S. NATIONAL MARINE FISHERY SERVICE FISH BULL. 79(4):737-748.

KEYWORD: shrimp, model, zooplankton, infauna, sediment, fishery, physiology, productivity, food chain

ABSTRACT: The dynamics of commercial shrimp populations which support an important regional fishery on the south Texas (USA) outer continental shelf led to an investigation of an extensive data base for links in the various ecosystem components that related to these dynamics. A correlational model was developed that suggested relationships between pelagic and benthic components of the south Texas marine ecosystem. Utilizing tracers, such as Ni concentrations in biota, sediment and water, pathways of natural transfer between zooplankton, the benthos and coastal shrimp populations were identified. A theoretical food web for the shrimp populations was developed, focusing on transfer of C. The majority of primary production (approximately 80%) is diverted to the benthos. Secondary production of benthic infauna was not sufficient to alone support the coastal shrimp populations. At least part of their nutrition was derived from the detritus pool which was maintained by the excessive amount of primary production diverted to the benthos. The marine ecosystem in the coastal waters of south Texas apparently functions differently than other ecosystems studied in recent years. There is a need for a better understanding of the basis upon which marine living resources are supported in order to predict not only fishery yields but also effects of environmental disturbance.

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ACC 399; TYPE; YEAR 1981
FLORIDA SEA GRANT COLLEGE;
ENVIRONMENTAL IMPACT STATEMENT AND FISHERY MANAGEMENT PLAN FOR THE REEF FISH RESOURCES OF THE GULF OF MEXICO.

BIBL GULF OF MEXICO FISHERY MANAGEMENT COUNCIL, TAMPA, FL. 140 PP

KEYWORD: biology, management, fishery, fishery statistics, fishing gear, reef, socioeconomic

ABSTRACT: Not available.

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ACC 2090; TYPE P; YEAR 1979
FLORIDA DEPARTMENT OF NATURAL RESOURCES;
PROJECT HOURGLASSBBASYSTEMATIC EcOLOGICAL STUDY OF WEST FLORIDA SHELF IOTIC COMMUNITIES.

BIBL MAR. RESEARCH LAB. PUBL. 9 P.

KEYWORD: hourglass, community, temperature, salinity

ABSTRACT: This paper describes the systematic sampling program of Project Hourglass and lists the reports published from the collected data. During Project Hourglass, 5 stations in depths of 6, 18, 37, 55, and 73 m along two east-west transects on the west Florida shelf were sampled from August 1965 to November 1967. The transects were located off Sanibel Island and Tampa Bay approximately 160 km apart. Banthic and planktonic fauna and flora were collected, and environmental parameters were measured at each station. Thus far, 76 publications have resulted from Project Hourglass data, with an additional 75-80 reports expected.

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ACC 2045; TYPE P; YEAR 1971
FONTAINE, C.T.; NEAL, R.A.;
LENGTHBWEIGHTRELATIONS FOR THREE COMMERCIALLY IMPORTANT PENAEID SHRIMP OF THE GULF OF MEXICO.

BIBL TRANS. AM. FISH. SOC. 100:584-586.

KEYWORD: length, weight, pink shrimp, brown shrimp

ABSTRACT: Sexual variations in the size ranges of 2 penaeid shrimp species were determined for shrimp collected from the upper Texas coast and Florida Tortugas grounds. Length-weight relationships were determined for Penaeus aztecus, P. setiferus, and P. duorarum on a seasonal basis. Differences in size between sexes and species are given.

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ACC 4037; TYPE P; YEAR 1985
FOOTE, R.Q.;
SUMMARY REPORT ON THE REGIONAL GEOLOGY, PETROLEUM GEOLOGY, ENVIRONMENTAL GEOLOGY, AND ESTIMATES OF UNDISCOVERED RECOVERA LE OIL AND GAS RESOURCES IN THE PLANNING AREA OF PROPOSED OUTER CONTINENTAL SHELF OIL AND GAS LEASE NO. 94, EASTERN GULF OF MEXICO.

BIBL U.S. GEOLOGICAL SURVEY OPEN FILE REPT. 85-669. 113 P.

KEYWORD: geology, geophysical, oil exploration, seismic, hydrocarbon, resource

ABSTRACT: The U.S. Geological Survey prepared a summary of geological framework, petroleum geology, and the potential geologic problems and hazards associated with development of petroleum resources in the 59 million acre eastern Gulf of Mexico Planning area. Seismic data from eastern Gulf of Mexico included 17,023 nautical miles of reflection profiles. This information was supplemented with data from 27 exploratory wells drilled within the planning area. Total estimated undiscovered recoverable resources in the planning area range from 0.22 to 3.98 billion barrels of oil and from 0.21 to 3.23 trillion cubic feet of gas. The mean estimate for oil is 1.53 billion barrels and the mean for gas is 1.58 trillion cubic feet. The planning area covers 92,515 square miles; water depths range from less than 33 feet to more than 10,810 feet. The hydrocarbon-producing region in the northwestern Gulf is primarily a Cenozoic terrigeneous basin in which the cumulative thickness of the sediments is greater than 6 mi. The main hydrocarbon-bearing intervals offshore are Miocene, Pliocene, and Pleistocene age. The general areas of Miocene, Pliocene, and Pleistocene production in the central and western Gulf of Mexico are also reviewed in the report.

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ACC 487; TYPE; YEAR 1977
FORE, P.L., ED.;
PROCEEDINGS OF THE 1977 OIL SPILL RESPONSE WORKSHOPS.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS-OBS-77124. 153 PP.

KEYWORD: aves, biology, chemistry, coastal water, exploration, industry, oil spill, oil, pollution

ABSTRACT: Not available.

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ACC 4220; TYPE P; YEAR 1977
FORRISTALL, G.Z.; HAMILTON, R.C.; ARDONE, V J.;
CONTINENTAL SHELF CURRENTS IN TROPICAL STORM DELIA: O SERVATIONS AND THEORY.

BIBL J. PHYS. OCEANOGR. 7(4):532-546.

KEYWORD: storm, currents, model, wave, wind, sediment transport

ABSTRACT: Storm currents are a significant part of the design hydrodynamic flow field in areas subject to tropical storms. In September 1973, Tropical storm Delia passed over the instrumented Buccaneer platform located in 20 m of water 50 km south of Galveston, Texas. Current meter records from three depths showed that the storm produced currents on the order of 2 m/s which persisted to near the bottom. A mathematical model of wind-driven current generation was successful in hindcasting the observed current development after a linear slip condition bottom was incorporated in the model.

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ACC 4257; TYPE P; YEAR 1980
FORRISTALL, G.Z.;
A TWOBLAYERMODEL FOR HURRICANEB DRIVEN CURRENTS ON AN IRREGULAR GRID.

BIBL J. PHYS. OCEANOGR. 10(9):1417-1438.

KEYWORD: model, currents, wind, storm, wind stress, hurricane, river discharge

ABSTRACT: Measurements made during Hurricanes Carmen and Eloise revealed some features of wind-driven currents which have been incorporated into a numerical model. In the summer, near-surface waters on the continental shelf off Louisiana are usually strongly stratified by river runoff. The passage of a hurricane provides enough energy to mix the surface layer down to a depth between 30 and 45 m. At the same time, a two-layer current system develops, with the mixed layer responding much more directly to the wind shear than the bottom layer. This system was modeled by parameterizing the mixed layer with a much lower eddy viscosity. A modification of a previously developed convolution integral scheme permits calculation of the detailed structure in both layers without requiring a three-dimensional grid. To eliminate some problems with lateral boundary conditions, the vertically integrated calculations were performed on an irregular grid system covering the entire Gulf of Mexico. Comparisons with the storm measurements show that the model is reasonably accurate, but there are still some unmodeled processes.

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ACC 2407; TYPE P; YEAR 1973
FOSSHAGEN, A.;
A NEW GENUS OF SPECIES OF OTTOM LIVING CALANOID (COPEPODA) FROM FLORIDA AND COLOM IA.

BIBL SARSIA 52:145-154.

KEYWORD: Monroe, crustacea

ABSTRACT: The description of a new species, Epacteriscus rapax, was presented. This species was considered to belong to a family of its own which shows some similarities with the Arietellidae and Ridgewayiidae. The mouth parts were reduced and specialized. The mandibular blade was unique among calanoids in having a strong coarsely serrated process which is directed ventrally and is probably used for catching or holding prey. The legs were generally unspecialized with no reduction in segmentation except for the fifth legs of the male.

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ACC 2091; TYPE P; YEAR 1974
FOSTER, R.;
THE MACRO ENTHOS OF SELECTED HA ITATS FROM THE WEST COAST OF FLORIDA: A MULTIVARIATE ANALYSIS.

BIBL ENVIR. STUD. PROG. NEW COLLEGE OF THE UNIVERSITY OF SOUTH FLORIDA. 57 P.

KEYWORD: habitat, benthic, salinity, DO, nutrient, model

ABSTRACT: The study applied principal components analysis to a largely unfathomable ecological data base to yield a simple model of a many-sided situation. The statistical properties and biological implications of the multivariate analysis (known as principal component analysis) were described in detail. Data on the macrobenthos of 4 separate areas were collected. This analysis was limited to those species which occurred in at lest 4 samples in any one area. Complete lists of data used were included. Through the analysis, gradients distributions and the relative health of these estuarine communities were discussed.

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ACC 4210; TYPE P; YEAR 1979
FOTHERINGHAM, N.; WEISSBERG, G.H.;
SOME CAUSES, CONSEQUENCES AND POTENTIAL ENVIRONMENTAL IMPACTS OF OXYGEN DEPLETION IN THE NORTHERN GULF OF MEXICO.

BIBL PROC. 11TH ANNU. OFFSHORE TECH. CONF. 4:2205-2208.

KEYWORD: biological, water column, salinity, loop current, dissolved oxygen, polychaete, mollusc, crustacean, blue crab, shrimp, fish, hypoxia

ABSTRACT: Biological and water quality changes in the Gulf of Mexico off central Louisiana coast have been examined during a seasonal period of stratification and oxygen depletion in the water column. Probable causes, observed effects, and potential impacts on the timing of ocean discharges and dumping and onsite selection for offshore industries are described. Apparently an annual phenomenon of variable intensity resulting from a large discharge of low salinity organic-laden water from the Mississippi and Atchafalaya Rivers at a time of minimal vertical mixing, this midsummer event may be intensified and prolonged by the intrusion of high salinity bottom waters from a Loop Current eddy. In 1978, a widespread low oxygen layer occupied the lower 3 to 8 m of the 6 to 17 m water column for at least 3 weeks. Dissolved oxygen concentration was commonly less than 0.1 ppm in this layer, resulting in the mortality of some polychaetes, mollusks, and crustaceans, including blue crabs, and in the reduction of demersal shrimp and fish populations, probably through emigration offshore. Numerous large bivalves approximately 4 to 5 years old were killed, indicating an intensity not experienced since 1973 to 1974, when Green found anoxic bottom water at over one-half of his stations in this area. The temporal and geographic distribution of this condition and its environmental consequences should be recognized by industries engaged in fishing, offshore petroleum production, and offshore dumping and by government agencies providing leases and permits for these activities.

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ACC 357; TYPE; YEAR 1972
FRANKS, J.S.; CHRISTMAS, J.Y.; SILER, W.L.; COMBS, R.; WALLER, R.; BURNS, C.;
A STUDY OF NEKTONIC AND ENTHIC FAUNAS OF THE SHALLOW GULF OF MEXICO OFF THE STATE OF MISSISSIPPI.

BIBL GULF RES. REP 4(1).

KEYWORD: benthic community, biology, fishery, nekton, physical process, nutrient, temperature, salinity, ichthyoplankton

ABSTRACT: A seasonal study of the nektonic and benthic faunas of the shallow Gulf of Mexico off Mississippi was conducted from January 1967 through May 1969. It was planned to sample monthly six fixed offshore stations at depths ranging from 5 to 50 fathoms in the open Gulf. In general this was carried out fairly well, as shown by Table 1. Water samples were taken from surface, midwater, and bottom levels each time a station was occupied, and temperatures and salinities were recorded for each of these. Samples were tested for the presence of nitrates, nitrites, ortho-phosphates and total phosphates. Secchi disc extinction points were recorded. Grab samples were taken for the determination of bottom composition. Plankton samples were taken from surface, midwater and bottom levels. Copepods, brachyuran zoea and megalops, stomatopod larvae, Lucifer faxoni, Acetes a. carolinae, Penilia, avirostris, Doliolum sp. and fish eggs and larvae were present in greatest abundance. Surface and benthic nekton samples were obtained. Dredge samples were made quarterly and twelve invertebrate species and three species of fishes were collected. Renilla mulleri was the most abundant species taken, and the fish catch consisted of Centropristes ocyurus, Citharichthys spilopterus and Etropus crossotus. Accounts of 50 invertebrate species (24,679 specimens) and 129 fishes (93,563 specimens) taken in trawl hauls is presented. Temperature and salinity data are given for all species. Relative abundance, seasonal bathymetric distributions and

movements, apparent growth patterns, catch per unit of effort and various biological data are noted for the most abundant 92.9% to the total fish catch.

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ACC 1075; TYPE; YEAR 1972
FRANK, D.J.;
DEUTERIUM VARIATIONS IN THE GULF OF MEXICO AND SELECTED ORGANIC MATERIALS

BIBL PH.D. DISSERTATION. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 118 PP.

KEYWORD: salinity, zooplankton, water temperature

ABSTRACT: Samples of zooplankton were collected from the Gulf of Mexico during cruises 70-A-14, 71-A-3, 71-A-5, 71-A-12 and 71-A-9 of the R/V Alaminos. 160 water samples were also collected from the Gulf of Mexico, Caribbean Sea, and Mississippi and Coatzacoalcos Rivers. Plankton and water samples were analyzed for deuterium and protium and physical data including temperature and salinity were collected.

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ACC 4038; TYPE P; YEAR 1983
FRENCH, C.O.; PARSONS, J.W.;
FLORIDA COASTAL ECOLOGICAL CHARACTERIZATION: A SOCIOECONOMIC STUDY OF THE SOUTHWESTERN REGION.

BIBL U.S. FISH AND WILDLIFE SERVICE, DIVISION OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-83/14. 2 VOL.

KEYWORD: socioeconomic, recreational fishery, commercial fishery, coastal

ABSTRACT: Data are compiled from existing sources on social and economic characteristics of the southwestern coastal region of Florida, which is made up of Charlotte, Collier, DeSoto, Hillsborogh, Lee, Manatee, Monroe, Pasco, Pinellas, and Sarasota Counties. Described are the components and interrelationships among complex processes that include population and demographics characteristics, minerals production, multiple-use conflicts, recreation and tourism, agricultural production, sport and commercial fishing transportation, industrial and residential development, and environmental issues and regulations. Energetics models of socioeconomic systems are also presented. The report consists of one volume of text and three volumes that contain the data appendix.

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ACC 425; TYPE; YEAR 1982
FRITTS, T.H.; IRVINE, A.B.; JENNINGS, R.D.; COLLUM, L.A.; HOFFMAN, W.; MCGEHEE,
TURTLES, IRDS AND MAMMALS IN THE NORTHERN GULF OF MEXICO AND NEAR Y ATLANTIC WATERS. AN OVERVIEW ASED ON AERIAL SURVEYS OF OCS AREAS, WITH EMPHASIS ON OIL AND GAS EFFECTS.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS-OBS-82-65. 455 PP.

KEYWORD: aves, mammalia, reptilia, vertebrata, aerial survey, biology, ecology, species composition, turtles

ABSTRACT: Aerial line transect surveys of marine turtles, birds, and mammals were conducted in four areas of the Gulf of Mexico and nearby Atlantic waters. Areas surveyed were 111 km by 222 km and located off Brownsville, Texas; Marsh Island, Louisiana; Naples, Florida, and Merritt Island, Florida. Data on distribution, abundance, seasonal occurrence, and habitat use are reported in accounts for each of the 88 species observed. Information on reproduction, behavior, and potential impacts of Outer Continental Shelf (OCS) development are also discussed. Later chapters summarize the fauna of each of the four areas; characterize the inshore, nearshore, and offshore fauna; and discuss the effects of OCS development on marine vertebrates.

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ACC 4039; TYPE P; YEAR 1981
FRITTS, T.H.; REYNOLDS, R.P.;
PILOT STUDY OF THE MARINE MAMMALS, IRDS, AND TURTLES IN OCS AREAS OF THE GULF OF MEXICO.

BIBL PREPARED FOR THE U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT AND FISH AND WILDLIFE SERVICE, WASHINGTON, D.C. CONTRACT NO. 14-16-009-79.

KEYWORD: bird, mammal, turtle, habitat, biology, endangered species, aerial survey, seabird, aves, reptilia, mammalia

ABSTRACT: Aerial surveys of marine mammals, birds and turtles were conducted at four subunits of the Gulf of Mexico from August to December 1979. This Pilot Study was designed to develop techniques and to collect primary data on the vertebrate faunas of outer continental shelf (OCS) waters. This information, once expanded to include an adequate sample size will be important to valuating effects of oil and gas development in offshore areas. Surveys were conducted at altitudes of 91 and 228 m. The 91-m surveys were superior for detecting and identifying birds and turtles, while more area could be surveyed for larger animals at 228 m. Waters within 111 km of shore were sampled at a ratio in relation to waters 111 to 222 km offshore. Texas subunits extended beyond the continental shelf, but Florida subunits did not. Observations were made on 12 mammal, 35 bird, and 5 turtle taxa. Sperm whales were documented in water off Texas. Marine turtles were common in the eastern Gulf but virtually absent from the western areas studied. Differences in dolphin faunas in the eastern and western subunits were noted and potential north-south movements in response to season were noted on both sides of the Gulf of Mexico. The maps and basic ecological data collected provided a unique view of faunal differences within OCS areas of the Gulf of Mexico. Because of the complexity of the

Gulf of Mexico and its fauna, additional analyses will depend upon having data encompassing annual, seasonal, geographic, and bathymetric variation. Additional survey areas and more frequent samples emphasizing seasonal variation on successive years are required.

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ACC 4230; TYPE P; YEAR 1984
FRITTS, T.H.; HOFFMAN, W.; MCGEHEE, M.A.;
THE DISTRI UTION AND A UNDANCE OF MARINE TURTLES IN THE GULF OF MEXICO AND NEAR Y ATLANTIC WATERS.

BIBL J. HERPETOL. 17(4):327-344.

KEYWORD: distribution, abundance, turtle, depth, herpetofauna, reptilia

ABSTRACT: Aerial surveys of marine waters up to 222 km from shore in the Gulf of Mexico and nearby Atlantic Ocean suggest that marine turtles are largely distributed in waters less than 100 m in depth. The loggerhead turtle (Caretta caretta) was observed nearly 50 times as often in waters off eastern and western Florida (USA) as in the western Gulf of Mexico. Loggerheads were present year-round but the frequency of sightings in the winter months was lower than at other seasons. Green turtles (Chelonia mydas) were infrequently observed but were most conspicuous in water off eastern Florida. Kemp's ridleys (Lepidochelys kempi) were most frequently sighted off southwestern Florida and rarely observed in the western Gulf of Mexico. Leatherback turtles (Dermochelys coriacea) were more conspicuous on the continental shelf than in adjacent deeper water. A concentration of leatherback and loggerhead turtles occurred west of the Gulf Stream Current in August 1980, near Brevard County, Florida.

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ACC 4040; TYPE P; YEAR 1983
FRY, B.;
FISH AND SHRIMP MIGRATIONS IN THE NORTHERN GULF OF MEXICO ANALYZED USING STA LE C, N, AND S ISOTOPE RATIOS.

BIBL FISH. BULL. 81(4):789-801.

KEYWORD: biology, demersal fish, fish, invertebrate, benthic, isotope ratio, migration, recruitment, pink shrimp, seagrass, life history, brown shrimp

ABSTRACT: Natural stable isotope tags were used in northern Gulf of Mexico to interpret igratons of five commercial fish and shrimp species: Leiostomus xanthurus, Micropogonias undulats, Penaeus aztecus, P. duorarum, nd P. setiferus. Along the south of Texas and Florida coasts isotopic analyses showed seagrass meadows and possibly other shallow estuarine habitats are important feeding grounds for shrimp that are later caught in offshore fisheries. Thus stable carbon, nitrogen, and sulfur values of juvenile shrimp in grassflats coincided with isotopic values of small shrimp collected offshore. Because isotopic values were similar in Spartina marshes and open bays along this northern coast, no conclusions could be reached about the relative importance of Spartina marshes as inshore feeding grounds. During feeding and growth offshore eventual convergence about offshore isotopic values should result for the migratory species studied. However striking differences in convergence patterns were evident for the five species, ranging from close convergence at small, subadult sizes (P. aztecus and P. duorarum) to nonconvergence among adults (L. xanthurus). These differences point to contrasts in the basic life history patterns of migration (especially the juvenile vs. adult size at which offshore migration occurs), and, for one species, showed that isotopic methods can trace yearly variations in these patterns.

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ACC 786; TYPE; YEAR 1979
FUCIK, K.W.; EL-SAYED, S.Z.;
EFFECT OF OIL PRODUCTION AND DRILLING OPERATIONS ON THE ECOLOGY OF PHYTOPLANKTON IN THE OEI STUDY AREA.

IN: C.H. WARD, M.E. BENDER, AND D.J. REISH, EDS. THE OFFSHORE ECOLOGY INVESTIGATION, EFFECTS OF OIL DRILLING AND PRODUCTION IN A COASTAL ENVIRONMENT. P. 325-353.

BIBL RICE UNIVERSITY STUDIES, VOL. 65, NOS. 4 & 5. WILLIAM MARSH RICE UNIVERSITY, HOUSTON, TX.

KEYWORD: biology, biomass, ecology, phytoplankton, standing crop, primary productivity, offshore drilling

ABSTRACT: Between June 1972 and January 1974, twelve cruises were made to study photosynthetic rates and the standing crop of phytoplankton off the Louisiana coast. Data from a production platform were compared with data from a control station 6 miles northeast of the platform, with regard to photosynthetic activity of phytoplankton; chlorophyll a as a measure of the standing crop; species composition; and nutrient salts. Seasonal variations in all categories were observed at the platform and control station. Chlorophyll a values were lowest in November 1972 and January 1973. Highest standing crop values were recorded in April 1973, during the bloom of Skeletonema costatum. The OEI study area is considered one of the most productive areas of phytoplankton in the Gulf. Our investigation showed no deleterious effects from the oil production platform.

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ACC 4184; TYPE P; YEAR 1981
FUCIK, K.W.; SHOW, I. T.;
ENVIRONMENTAL SYNTHESIS USING AN ECOSYSTEMS MODEL.

BIBL MR. SCI. (PLENUM) ENVIRON. EFF. OFFSHORE OIL PRODUCTION. BUCCANEER GAS OIL FIELD STUDY 14:329-353.

KEYWORD: hydrocarbon, pollution, offshore drilling, model

ABSTRACT: Not available.

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ACC 727; TYPE ; YEAR 1978
FULLER, D.A.;
THE HA ITS, DISTRI UTION, AND INCIDENTAL CAPTURE OF SEA TURTLES IN THE GULF OF MEXICO.

IN: APPENDIX A, DRAFT ENVIRONMENTAL IMPACT STATEMENT AND FISHERY MANAGEMENT PLAN FOR THE SHRIMP FISHERY OF THE GULF OF MEXICO, UNITED STATES WATERS. 41 P.

BIBL GULF OF MEXICO FISHERY MANAGEMENT COUNCIL,TAMPA, FL.

KEYWORD: reptilia, biology, ecology, feeding habit, life history, nesting, reproduction, species composition, turtle

ABSTRACT: This report includes detailed information on the six species of seaturtles found in the Gulf of Mexico. Included for each species are topics on distribution, breeding habits, growth and mortality, foraging and food habits, migration and population status. In addition, distribution of seaturtles in the Gulf of Mexico and discussion of incidental captures in shrimp trawls are also included.

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ACC 2015; TYPE P; YEAR 1966
FUTCH, C.R.;
THE STONE CRA IN FLORIDA.

BIBL FLA. BD. CONSERV. MARINE LABORATORY, SALT WATER FISH. LEAFL. NO. 2. 6 P.

KEYWORD: stone crab, fishery, life history, fishing gear

ABSTRACT: This brief leaflet reviews information on the stone crab, Menippe mercenaria, and the stone crab fishery in Florida. A general description and classification of M. mercenaria is given, and similar species in Florida waters are described. The life history of the stone crab is summarized and fishing gear and methods are briefly described. The problems of future stone crab cultivation are cited.

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ACC 838; TYPE ; YEAR 1974
GAIDRY, W.J.;
CORRELATIONS ETWEEN INSHORE SPRING WHITE SHRIMP POPULATION DENSITIES AND OVERWINTERING POPULATIONS.

BIBL LOUISIANA WILDLIFE AND FISHERIES COMMISSION, TECH. BULL. 12. 18 PP.

KEYWORD: benthic fauna, life history, shrimp

ABSTRACT: Biological samplings of offshore overwintering shrimp populations were compared mathematically to inshore spring white shrimp landings and possible correlations were examined. The samples were collected from 1970 to 1972.

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ACC 219; TYPE; YEAR 1982
GALLAWAY, B.J.; LEWBEL, G.S.;
THE ECOLOGY OF PETROLEUM PLATFORMS IN THE NORTHWESTERN GULF OF MEXICO: A COMMUNITY PROFILE.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-82/27. 106 P. (ALSO MINERALS MGMT SERVICE) GULF OF MEXICO)

KEYWORD: biology, coastal water, ecology, fish, habitat, offshore drilling, offshore platform, continental shelf

ABSTRACT: The primary objective of this community profile is to consolidate the ecological information pertaining to the interaction between petroleum platforms in the northwestern Gulf of Mexico and the resident biota. Offshore petroleum platforms represent a relatively new (and perhaps short-lived) biological habitat in the northwestern Gulf which is characterized by distinctive faunal assemblages and species associations. Characterizations of the total area and nature of petroleum platform habitats and a review of the pertinent biological literature are followed by descriptions of the biological assemblages in terms of their composition and community attributes. Some of the values of these biological resource units to man are then summarized. Finally, some of the management implications of the value judgements are presented and recommendations for preservation of the platform resource are provided.

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ACC 4276; TYPE P; YEAR 1981
GALLAWAY, B.J.;
AN ECOSYSTEM ANALYSIS OF OIL AND GAS DEVELOPMENT ON THE TEXASBLOUISIANA CONTINENTAL SHELF. IOLOGICAL SERVICES PROGRAM.

BIBL LGL ECOLOGICAL RES. ASSOC., INC., BRYAN, TX. 100 P.

KEYWORD: ecosystem, oil and gas, oceanographic, biological, shrimp, coral, reef, community

ABSTRACT: The Texas-Louisiana shelf ecosystem in the Gulf of Mexico is described in terms of its physiographic, oceanographic, and biological characteristics and as a recipient of oil and gas development activities and effluents. The northeast sector of the ecosystem is influenced by Mississippi River discharge, whereas high-salinity Caribbean water affects the southwest sector. Soft-bottom communities are prominent, characterized by economically valuable penaeid shrimps. The coral reef communities are more important than would normally be assumed. Pelagic communities are little known and harbor only a few commercially valuable species. Observed effects of oil and gas development activities and effluents are described.

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ACC 4041; TYPE P; YEAR 1954
GALTSOFF, P.S.;
GULF OF MEXICO. ITS ORIGIN, WATERS, AND MARINE LIFE.

BIBL FISHERY BULLETIN OF THE FISH AND WILDLIFE SERVICE. 55(89):604 P.

KEYWORD: geology, sediment, meteorology, chemistry, pollution, physical oceanography, biology, systematic

ABSTRACT: A comprehensive summary of scientific knowledge of the Gulf of Mexico was produced by a consortium of investigators. Each article pertaining to a particular taxonomic group was written by a recognized authority in his field; these are arranged with a few exceptions, in taxonomic order following a pre-established list of phyla, classes, and orders. Taxonomic groups covered range from bacterial fungi, and unicellular algae to marine mammals. Each of these chapters provides a systematic account of species distribution and occurrence in the Gulf of Mexico. Plant and animal communities are also treated. Physics and chemistry discussions included tides, sea level, physical oceanography, light penetration, and distribution of chemical constituents. Geomorphology, sediments, and shoreline processes were described in the geology chapter. Water pollution is covered including descriptions of known damage to resources within the Gulf of Mexico. An historical review of scientific explorations in the Gulf of Mexico is also included.

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ACC 570; TYPE; YEAR 1973
GARRISON, L.E.; MARTIN, R.G.;
GEOLOGIC STRUCTURES IN THE GULF OF MEXICO ASIN.

BIBL U.S. GEOLOGICAL SURVEY, PROF. PAP. NO. 773. 85 PP.

KEYWORD: geologic history, geology, oceanography, seismic reflection, stratigraphy, structure, tectonic

ABSTRACT: Not available.

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ACC 617; TYPE ; YEAR 1976
GASTON, G.R.;
LIFE HISTORY, DISTRI UTION AND A UNDANCE OF THE SAND DOLLAR, MELLITA QUINQUIESPERFORATA (LESKE) NEAR DAUPHIN ISLAND, ALA AMA.

BIBL MASTER'S THESIS. UNIVERSITY OF ALABAMA, TUSCALOOSA, AL. 75 PP.

KEYWORD: benthic fauna, sediment, salinity, sediment texture, temperature, life history, echinoderm

ABSTRACT: The sand dollar, Mellita quinquiesperforata (Leske), population near Sand Island, Alabama was studied from August 1973 to August 1975, and the life history, distribution and abundance of the sand dollars were described.

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ACC 754; TYPE ; YEAR 1981
GATHOF, J.M.;
THE COMPARATIVE FEEDING HA ITS OF SPOEROIDES DORSALIS AND SPHOEROIDES SPENGLERI (PISCES: TETRAODONTIDAE).

BIBL MASTER'S THESIS. UNIVERSITY OF SOUTH ALABAMA, MOBILE, AL. 65 PP

KEYWORD: invertebrata, biology, ecology, feeding habit, fish, taxonomy, MAFLA

ABSTRACT: Gut content analysis was conducted on 150 puffer fishes collected during the BLM-OCS MAFLA - Baseline study. Gut contents were analyzed using cluster analysis and results indicated ontogenetic changes in diet within each of the two species.

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ACC 72; TYPE; YEAR 1967
GAUL, R.D.;
CIRCULATION OVER THE CONTINENTAL MARGIN OF THE NORTHEAST GULF OF MEXICO.

BIBL PH.D. DISSERTATION. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 123 PP

KEYWORD: circulation, continental shelf, currents, oceanography, physical process, loop current

ABSTRACT: The ocean circulation over the continental margin of the northeast Gulf of Mexico has been delineated on the basis of three years of hydrographic and direct current observations. A wide range of measurement techniques was used at two fixed platforms in the nearshore region off Panama City, Florida, and from small vessels during periodic surveys conducted over a larger area. Evidence is presented for a close coupling between circulation over the continental margin and that in deeper water. The "loop" current, which transports water into the Gulf from the Yucatan channel, is identified on the basis of water mass characteristics as far north as the edge of the northeast continental slope. Lateral mixing with waters over the continental margin is evidenced by smooth transitions of salinity-temperature relations characterizing offshore and nearshore waters. It is suggested that the loop current is the main driving influence for circulation over the continental margin, especially below the seasonal thermocline. Flow over the continental margin is modified markedly by ocean bottom topography. De Soto Canyon, the most prominent single bathymetric feature, appears to have a dominant influence on replenishment of water in the lower layer over the shelf. A zone of horizontal transition in hydrography and currents has been noted along the break between shelf and slope, especially during the spring months when stratification over the shelf is incipient.

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ACC 4311; TYPE P; YEAR 1965
GAUL, R.D.; BOYKIN, R.E.;
NORTHEAST GULF OF MEXICO HYDROGRAPHIC SURVEY DATA COLLECTED IN 1964.

BIBL 2 P.

KEYWORD: hydrographic, continental shelf, physical, circulation, continental slope

ABSTRACT: The report summarizes data collected during periodic hydrographic surveys made in 1964 over the continental shelf and slope of the northeast Gulf of Mexico. The survey region extends from the Mississippi Delta to Cape San Blas (about 200 nautical miles) and offshore to the 1000 fathom depth contour (100 to 110 nautical milas). The surveys serve two primary purposes. One is to provide "background" information on the physical environment over the shelf to aid in interpretation of phenomena observed in the vicinity of nearshore platforms off Panama City (Gaul et al., 1963). The second is to study the distribution of physical properties as related to circulation over and outside the shelf.

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CC 4312; TYPE P; YEAR 1964
GAUL, R.D.; BOYKIN, R.E.;
NORTHEAST GULF OF MEXICO HYDROGRAPHIC SURVEY DATA COLLECTED IN 1963.

BIBL 2 P.

KEYWORD: hydrographic, physical, circulation, fish, fouling

ABSTRACT: The survey region extends from the Mississippi Delta to Cape San Blas (about 200 nautical miles) and offshore to the 200 fathom depth contour (50 to 70 nautical miles). The surveys serve two primary purposes. One is to provide "background" information on the physical environment over the shelf to aid in interpretation of phenomena observed in the vicinity of nearshore platforms off Panama City (Gaul et al., 1963). The second is to study the distribution of physical properties as related to circulation over and outside the shelf. Studies of environmental influences on the distribution and occurrence of pelagic fishes (Vick, 1964) and "fouling" organisms (Gaul and Vic, 1964; Pequegnat, Gaul and Dean, 1964) also depend on survey data.

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ACC 466; TYPE; YEAR 1976
GEARING, P.; GEARING, J.N.; LYTLE, T.F.; LYTLE, J.S.;
HYDROCAR ONS IN 60 NORTHEAST GULF OF MEXICO SHELF SEDIMENTS: A PRELIMINARY SURVEY.

BIBL GEOCHEM. COSMOCHIM. ACTA 40:1005-1017.

KEYWORD: aliphatic compounds, chemistry, continental shelf, hydrocarbon, sediment

ABSTRACT: Not available.

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ACC 4318; TYPE P; YEAR 1977
GEBELSEIN, C.D.;
DYNAMICS OF RECENT CAR ONATE SEDIMENTATION AND ECOLOGY: CAPE SA LE, FLORIDA

BIBL LEIDEN. NETH. E. J. BRILL. 244 PP.

KEYWORD: carbonate, sediment, physical, biological, geologic history, geology

ABSTRACT: The 3 aspects of the sedimentology of the subtidal, intertidal, and supratidal carbonate sediments in and around Lake Ingraham, Cape Sable, Florida, examined include the following: the nature of facies changes, processes and products of sedimentation, and organism-sediment interactions. Each of these facies found in the vertical section is being formed continuously in some part of the cape complex. Thus both product and process are studied concurrently to determine why

facies changes exist and what physical and biological factors control facies distribution. Cape Sable is unusual in that a clear-cut datum level exists in the depositional record. Opening of man-made canals in 1922 connected Lake Ingraham to Florida Bay and the Gulf of Mexico and drastically changed sedimentation style in the entire Cape complex. This event is clearly recorded in the sediments and allows long-term integration of sedimentation rates throughout the complex. The study is presented under the following headings: area description; methods; physical environment; description of sedimentary environments (subtidal muds, open mud flats, ponded mud flats, mangrove flats, marl prairies; and inland lagoons); total sediment budget; and discussion (sedimentary facies, trends in organism abundance and diversity, bed type and relation to sedimentation event, sequence of facies, implication of sedimentary rates, diagenesis, comparison with the Northwest Andros Island flats and Persian Gulf Tidal flats. and comparison with ancient tidal flat sediments). (FT)

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ACC 4196; TYPE P; YEAR 1975
GEORGE, R.Y.;
POTENTIAL EFFECTS OF OIL DRILLING AND DUMPING ACTIVITIES ON MARINE IOTA.

BIBL ENVIRON ASPECTS CHEM. USE WELL-DRILL OPER. CONF. PROC. 333-356.

KEYWORD: drilling, offshore, drilling fluid, drilling mud

ABSTRACT: Not available.

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ACC 4042; TYPE P; YEAR 1983
GETTER, C.D.; MICHEL, J.; SCOTT, G.I.; SADD, J.L.; BALLOU, T.G.
THE SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL IN SOUTH FLORIDA.

BIBL PREPARED FOR THE STATE OF FLORIDA DEPARTMENT OF VETERAN AND COMMUNITY AFFAIRS, DIV. OF LOCAL RESOURCE MANAGEMENT, TALLAHASSEE, FL 125 P.

KEYWORD: coastal, intertidal, habitat, management, oil spill, seagrass, reef, mammal, seabird

ABSTRACT: A shoreline assessment was conducted throughout South Florida by means of aerial overflights, ground stations, and literature review. A series of maps, this report, and data supplements were produced. The first subject of this report was to describe environments and wildlife which appear on the maps. Special features related to placing booms, skimmers, and access for cleanup during oil spills are also shown on maps and discussed in this report in detail. Additional detail is given in this report concerning cleanup techniques. Also described are resources which are more variable in their sensitivity to oil usually being less sensitive since they are either underwater habitats or animals capable of avoiding oiled areas: Coral Reefs, Seagrass Beds, Whales and Dolphins, Marina Fisheries, Marshes, sand beaches, and man-made structures are the dominant shorelines of south Florida. The barrier island system from Grant to Key Biscayne affords protection of inner more oil-sensitive environments within the Intracoastal Waterway and northern Biscayne Bay. Oil which physically impacts these outer beaches would be relatively easy to clean, and these efforts would be aided by natural processes (waves and currents). Efforts to protect the inner bays and waterways should be concentrated at the large inlets which connect inner bays and waterways to the Straits of Florida and the Atlantic Ocean. In general, oil spill protection in South Florida involves oceangoing skimmers at the spill site (first line of defense), deflection booms at inlets, channels, and creeks (second line of defense) and containment booms across canals...

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ACC 4043; TYPE P; YEAR 1983
GETTER, C.D.; MICHEL, J.; BALLOU, T.G.;
THE SENSITIVITY OF COASTAL ENVIRONMENTS AND WILDLIFE TO SPILLED OIL IN WEST PENINSULAR FLORIDA.

BIBL PREPARED FOR THE STATE OF FLORIDA DEPARTMENT OF VETERAN AND COMMUNITY AFFAIRS, DIVISION OF LOCAL RESOURCE MANAGEMENT, TALLAHASSEE, FL. 115 P

KEYWORD: coastal, habitat, management, oil spill, seagrass, mammal, intertidal, seabird

ABSTRACT: A shoreline assessment was conducted throughout West Peninsular Florida by means of aerial overflights, ground stations, and literature review. A series of maps, this report, and six data supplements were produced. The first subject of this report is to describe the environments and wildlife which appear on the maps. Special features related to placing booms, skimmers, and access for cleanup during oil spills are also shown on the maps and discussed in this report in detail. Additional detail is given in this report concerning cleanup techniques. Also described are resources which are variable in their sensitivity to oil, usually being less sensitive since they are either subtidal habitats or animals capable of avoiding oiled areas: seagrass beds, whales and dolphins, marine fisheries.

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ACC 4205; TYPE P; YEAR 1980
GETTLESON, D.A.; LAIRD, C.E.; PUTT, R.E.; ABBOTT, R.E.;
ENVIRONMENTAL MONITORING ASSOCIATED WITH A PRODUCTION PLATFORM IN THE GULF OF MEXICO.

BIBL IN: PROC. 12TH ANNU. OFFSHORE TECH. CONF. 1:263-270

KEYWORD: currents, sediment, barium, water column, drilling mud, distribution, chromium, remote sensing, photodocumentation

ABSTRACT: The results of a marine environmental monitoring program associated with drilling operations from a production near Baker Bank in the northwestern Gulf of Mexico are described. Th study represents the first environmental monitoring program conducted in the Gulf of Mexico for a production platform located near a sensitive biological area. Current direction and velocity data amounts of sediment and associated barium and chromium levels deposited in sediment traps, bottom sediment barium and chromium levels, and water column data were used to assess the dispersion and distribution characteristics of discharged drilling muds. Television video-tapes and still-camera photographs were used to record the abundance, distribution and health of the biota associated with Baker Bank. The monitoring program showed that the prevailing near-bottom current was to the southwest, away from Baker Bank. Components in the direction of the Bank were rarely sufficient to transport discharged drilling muds to the Bank. Sediment and water column data also indicated that no drilling muds were transported to the Bank. Camera observations showed no discernable changes in the Bank's biota during the period of the study.

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ACC 4248; TYPE P; YEAR 1981
GETTLESON, D.A.;
IOLOGICAL ASSEM LAGES (LIVE OTTOM) ASSOCIATED WITH HARD OTTOM AREAS IN THE GEORGIA EM AYMENT AND EASTERN GULF OF MEXICO.

BIBL BIENNIAL INTERNATIONAL ESTUARINE RESEARCH CONFERENCE, GLENEDEN BEACH, OR (USA) 1-5 NOV. 1981. ESTUARIES 4(3):304.

KEYWORD: biological, assemblage, live bottom, side scan sonar, porifera, polychaete, mollusc, crustacean, echinoderm

ABSTRACT: Four oil and gas lease blocks on the South Carolina-Georgia continental shelf and six lease blocks and five east-west transects on the west Florida continental shelf were surveyed with a precision depth recorder, side scan sonar, and subbottom profiler for the purpose of identifying and mapping areas of hard bottom. Television, videotapes, still camera photographs, and dredge samples were used to characterize the biological assemblages (live bottom) associated with the hard bottom. The assemblages were composed primarily of representatives from the following major taxa: Porifera, Cnidaria, chlorophyta, Phaeophyta, Rhodophyta, and Ascidiacea. A number of species of polychaetes, molluscs, crustaceans, and echinoderms were also directly associated with the hard bottom.

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ACC 4255; TYPE P; YEAR 1981
GETTLESON, D.A.; HAMMER, R.M.; LAIRD, C.E.; PUTT, R.E.;
ENVIRONMENTAL MONITORING OF THREE EXPLORATORY OIL AND GAS WELLS DRILLED NEAR THE EAST FLOWER GARDEN ANK IN THE GULF OF MEXICO. THIRTEENTH ANNUAL OFFSHORE TECHNOLOGY CONFERENCE, HOUSTON, TX (USA) 4 MAY 1981.

BIBL PROC. 13TH ANNU. OFFSHORE TECH. CONF. 2:475-486.

KEYWORD: drilling, distribution, drilling fluid, reef, coral, sediment

ABSTRACT: The results of two marine environmental monitoring programs associated with the drilling of three exploratory wells near the East Flower Garden Bank on the outer continental shelf of the northwest Gulf of Mexico are described. The purpose of the monitoring programs was to define tha spatial distribution of the discharged drilling fluids relative to the Bank and assess the apparent health of the predominant reef-building corals of the East Flower Garden Bank before, during, and after the drilling operations. The monitoring programs demonstrated that detectable quantities of the drilling fluids in the surficial sediments were distributed to a distance exceeding 1000 meters from the shunted wells and between 1000 to 2000 meters from the near-surface discharged well. No evidence of drilling fluids was detected within the Coral Reef Zone of the Flower Garden Bank. The survey results also demonstrated that the drilling operations had no apparent effect on the corals at the monitored sites.

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ACC 4266; TYPE P; YEAR 1978
GETTLESON, D.A.;
ECOLOGICAL IMPACT OF EXPLORATORY DRILLING: A CASE STUDY.

BIBL. PRESENTED AT ENERGY/ENVIRONMENT 78 LOS ANGELES (USA) 22 AUGUST 1978. SOC. PETROL. INDUSTRY BIOLOGISTS.

KEYWORD: drilling, drilling fluid, drill cutting, coral, current, reef

ABSTRACT: The results of a marine environmental monitoring program associated with the drilling of two exploratory wells near the East Flower Garden Bank located on the outer continental shelf of the northwest Gulf of Mexico are described. The monitoring program consisted of (1) defining the spatial distribution of discharged drilling fluids and cuttings relative to the drillsite, and (2) assessing the apparent health of predominant reefbuilding corals of the East Flower Garden Bank before, during and after drilling operations. Current direction and velocity amounts of sediment and associated barium levels deposited in sediment traps, bottom sediment barium levels and water column transmissivity data were used for realtime and post-drilling assessment of the dispersion and distribution of discharged drilling fluids and cuttings. The monitoring program demonstrated that a portion of the drilling fluids and cuttings were distributed to a distance exceeding 1000 meters from the drillsite by a low velocity water current along the bottom. However, no evidence of the drilling fluids and/or cuttings was detected at the monitorad sites within the Coral Reef Zone. The survey results also demonstrated that the drilling operations had no apparent effect on the corals of the monitored sites.

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ACC 4273; TYPE P; YEAR 1981
GETTLESON, D.A.; PUTT, R.E.; HAMMER, R.M.; LAIRD, C.E.;
ENVIRONMENTAL MONITORING OF THREE EXPLORATORY OIL AND GAS WELLS DRILLED NEAR THE EAST FLOWER GARDEN ANK IN THE GULF OF MEXICO.

BIBL OFFSHORE TECHNOL. CONF. (UNITED STATES) 2:475-48.

KEYWORD: drilling, continental shelf, distribution, drilling fluid, reef, coral, sediment

ABSTRACT: The results of two marine environmental monitoring programs associated with the drilling of three exploratory wells near the East Flower Garden Bank on the outer continental shelf of the northwest Gulf of Mexico are described. The purpose of the monitoring programs was to define tha spatial distribution of the discharged drilling fluids relative to the Bank and assess the apparent health of the predominant reef-building corals of the East Flower Garden Bank before, during, and after the drilling operations. The monitoring programs demonstrated that detectable quantities of the drilling fluids in the surficial sediments were distributed to a distance exceeding 1000 meters from the near-surface discharged well.

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ACC 4274; TYPE P; YEAR 1980
GETTLESON, D.A.; LAIRD, C.E.;
ENTHIC ARIUM LEVELS IN THE VICINITY OF SIX DRILL SITES IN THE GULF OF MEXICO.

BIBL. CONTINENTAL SHELF ASSOCIATES, INC., TEQUESTA, FL. 739-788.

KEYWORD: barium, drilling fluid, benthic, distribution, drilling mud, hydrographic, drill cutting

ABSTRACT: Barium sulfate (barite) is a major constituent of drilling fluids, often comprising 80 to 90 percent by weight of the chemical components added to offshore wells in the Gulf of Mexico. It is primarily used to control the density of drilling fluids. Barium, which makes up 49 percent of barium sulfate by weight, was used as a tracer of discharged drilling fluids to map the benthic distribution and concentration of discharged drilling muds in the vicinity of five exploratory drill sites and a single production platform in the Gulf of Mexico. The discharges from three of the five exploratory wells and the production platform were shunted through a downpipe that terminated approximately ten meters from the bottom. The distances that barium is dispersed as well as its benthic concentrations appear to be dependent on at least the following factors: (1) the types and quantities of drilling fluids discharged, (2) the hydrographic conditions at the time of the discharges, and (3) the height above the bottom that the discharges are made. Barium analyses indicate that drilling fluids can be dispersed in detectable quantities at least 1000 meters and probably further, from both shunted and unshunted wells.

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ACC 291; TYPE; YEAR 1973
GEYER, R.A.; SWEET, W.M.;
NATURAL HYDROCAR ON SEEPAGE IN THE GULF OF MEXICO.

BIBL. TRANS., GULF COAST ASSOC. GEOL. SOC. 23:158-169.

KEYWORD: geology, oil, resource, hydrocarbon

ABSTRACT: Not available.

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ACC 4044; TYPE P
YEAR 1972
GIAM, C.S.; HANKS, A.R.; RICHARDSON, R.L.; SACKETT, W.M.; WONG, M.K.;
DDT, DDE, AND POLYCHLORINATED IPHENYL IN IOTA FROM THE GULF OF MEXICO AND CARI EAN SEA B1971.

BIBL PEST. MON. J. 6(3):139-143.

KEYWORD: chemistry, biology, pollution, fish, invertebrate, pesticide, shrimp, crab, coastal water

ABSTRACT: Residue levels of DDT, DDE, and PCB's were determined in various species of fish, shrimp, crabs, and other biota from the Gulf of Mexico and Caribbean Sea. Samples were collected from the Gulf during two Gulf-wide cruises in May and October 1971 and from part of the Caribbean Sea during the October cruise. DDT, DDE, and PCB's were found widely distributed in all biota, samples were found widely distributed in all biota; however, samples from coastal areas generally had higher levels than samples from the open waters.

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ACC 4045; TYPE P; YEAR 1978
GIAMMONA, C.P., JR.;
OCTOCORALS IN THE GULF OF MEXICOBBTHEIR TAXONOMY AND DISTRI UTION WITH REMARKS ON THEIR PALEONTOLOGY.

BIBL PH.D. DISSERTATION. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 260 P

KEYWORD: coral, distribution, systematic, zoogeography, biology, epifauna, invertebrate, ecology, octocorallia

ABSTRACT: The distribution of octocorals in the Gulf of Mexico is reviewed in this paper. The taxonomy, ecology, and paleontology of this group from along the Texas Gulf coast are emphasized. The distribution of Gulf octocoral families and genera presenting 622 specimens are plotted on 35 separate charts. They represent 22 families, 59 genera, and 152 species. The biotic assemblages and ecology of octocorals along the Texas outer continental shelf were studied using a submersible and conventional diving technique. Abiotic environmental factors, particularly turbidity from the nepheloid layer, affect small-scale distributions, abundance, and diversity of the hard-bank communities on the Texas continental shelf. Biotic factors such as dispersal, predation, competition, and behavior reactions may also influence distribution patterns. Ecological factors such as temperature, substrate type, and depth probably have the most influence on large-scale distribution patterns in the Gulf. The Gulf is divided into 61 geographic subunits, and the species collected from each subunit are listed. A classification method of numerical analysis is used to determine octocoral distribution patterns within the Gulf of Mexico. On that basis, six octocoral provinces are defined: 1) sub-tropical Gulf, 2) western Florida, 3) northern Gulf, 4) western Gulf, 5) southeast Mexican coast, and 6) central Gulf. Thirty-five fossil octocoral stem fragments and holdfasts were collected from the Stone City Formation (Claiborne group, middle Eocene) near College Station, Texas. The fossils belong to the order Gorgonacea. They represent the fifth reported oc...

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ACC 1082; TYPE; YEAR 1931
GINSBURG, I.;
ON THE DIFFERENCES IN HA ITAT AND SIZE OF CYNOSCION ARENARIUS AND CYNOSCIONNOTHUS.

BIBL COPEIA 1931(3):144.

KEYWORD: biology, ecology, fish, fishery, life cycle, life history, habitat, length

ABSTRACT: Not available.

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ACC 2016; TYPE P; YEAR 1964
GINSBURG, R.N.; SHINN, E.A.;
DISTRI UTION OF THE REEF UILDING COMMUNITY IN FLORIDA AND THE AHAMAS.

BIBL AM. ASSOC. PETROL. GEOL. BULL. 48:527

KEYWORD: distribution, diversity, coral, wave, circulation, salinity, temperature, suspended, sediment, reef

ABSTRACT: The distribution and diversity of coral reefs surrounding Florida and the Bahamas are reviewed. Reasons are given for the most luxuriant and continuous reef communities occurring along eastern facing margins of the Florida and Bahamas platforms. These factors include wave action, water circulation, salinity, water temperature, and suspended sediments. Western margins support small, discontinuous reefs with lower diversities due to the unfavorable qualities of these parameters.

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ACC 2408; TYPE P; YEAR 1953
GINSBURG, R.N.;
INTERTIDAL EROSION ON THE FLORIDA KEYS.

BIBL BULL. MAR. SCI. GULF CARIBB. 3(1):55-69.

KEYWORD: Monroe, carbonate, benthic, sponge, sediment

ABSTRACT: Examples of erosion of intertidal calcareous rock in the Florida Keys were described. Physicochemical dissolution of calcium carbonate was only responsible for localized intertidal erosion. Large scale honeycombing of calcareous rock was due primarily to boring and burrowing activities of benthic organisms. A partial list of boring and burrowing organisms, including a family of boring sponges (Clionidae), 3 sipunculans, a barnacla, 2 bivalves, and an echinoid, was given, and their specific effects on erosion were cited.

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ACC 2409; TYPE P; YEAR 1956
GINSBURG, R.N.;
ENVIRONMENTAL RELATIONSHIPS OF GRAIN SIZE AND CONSTITUENT PARTICLES IN SOME SOUTH FLORIDA CAR ONATE SEDIMENTS.

BIBL BULL. AM. ASSOC. PETROL. GEOL. 40(10):2384-2427.

KEYWORD: Monroe, grain size, carbonate, sediment, reef

ABSTRACT: An analysis was conducted of sediments taken from two areas around the Florida Bay area in an attempt to show that the distribution of sediment producing organisms can be found using grain size and constituents of the calcareous sediments deposited. In one area the physical environment varied so greatly that no distinct distribution of organism could be ascertained. However, in a reef area changes in the environments were gradual, thereby allowing flora and fauna changes to appear in the sediment analysis. The thin sectioning approach used here can also be used to analyze ancient limestones in similar types of studies.

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ACC 2410; TYPE P; YEAR 1972
GINSBURG, R N. (ED.);
SOUTH FLORIDA CAR ONATE SEDIMENTS. SEDIMENTA II.

BIBL COMPARATIVE SEDIMENTOLOGY LABORATORY, UNIV. OF MIAMI, FISHER ISLAND STATION, MIAMI BEACH, FL. 72 P.

KEYWORD: Monroe, carbonate, sediment, bathymetry, geology

ABSTRACT: This publication serves as a field trip guidebook to the Recent carbonate sediments of Florida Bay and Florida Reef Tract. The sedimentation and water circulation patterns, sediment composition, and molluscan fauna of Florida Bay are described. The corals and coralline algae of the reef tract are identified and their ecology and roles in sedimentation are summarized. Rodriguez Bank is used as an illustration of zonation of sediment producing plants and animals. Also covered in the guidebook are spur and grove formation in the reef tract, Pleistene limestones of the Florida Keys, recent dolomite of Sugarloaf Key, and bathymetry and geology of Pourtales Terrace.

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ACC 2411; TYPE P; YEAR 1958
GINSBURG, R.N.; LOWENSTAM, H.A.;
THE INFLUENCE OF MARINE OTTOM COMMUNITIES ON THE DEPOSITIONAL ENVIRONMENT OF SEDIMENTS.

BIBL J. GEOL. 66:310-318.

KEYWORD: Monroe, benthic, sediment, physical

ABSTRACT: The effects of benthic fauna on the sediment environment was studied in Florida Bay. The ability of organisms other than reef builders to control or modify their physical environment was described. The organisms cause recognizable differences in sediment and other organisms.

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ACC 2018; TYPE P; YEAR 1973
GODCHARLES, M.F.; JAAP, W.C.;
FAUNA AND FLORA IN HYDRAULIC CLAM DREDGE COLLECTIONS FROM FLORIDA WEST AND SOUTHEAST COASTS.

BIBL FLA. ST. DEPT. NAT. RESOURCES. LAB. SPEC. SCI. REPT. NO. 40 89 P.

KEYWORD: mollusc, crustacean, distribution, dredging

ABSTRACT: Live flora and fauna specimens were collected, identified, and counted from stations along the west and southeast coasts of Florida. Four hundred fifty three taxa of marine flora and fauna were identified. These specimens were taken from depths of 0.9 to 24.4 m. The majority of the reported taxa were molluscs and crustaceans. All specimens were listed in locality, depth, and numbers collected.

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ACC 4046; TYPE P; YEAR 1973
GODCHARLES, M.F.; JAAP, W.C.;
EXPLORATORY CLAM SURVEY OF FLORIDA NEARSHORE AND ESTUARINE WATERS WITH COMMERCIAL HYDRAULIC DREDGING GEAR.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. PROF. PAP. SER. NO. 21. 77 P.

KEYWORD: biology, coastal, mollusca, distribution, infauna, commercial fishery, benthic, dredging

ABSTRACT: Distribution and abundance of commercial clams were investigated, using a hydraulic Nantucket clam dredge and a Maryland soft-shell escalator clam dredge at 846 stations along the west and southeast coasts of Florida, during 1970 and 1971. Sunray venus clams, Macrocallista nimbosa, occurred along the entire west coast but were more abundant north of Tampa Bay and were found in commercial quantities only on the existing commercial Bell Shoal bed. Southern quahogs, Mercenaria campechiensis, were most abundant near passes along central and southwest Florida. In bays, both species were usually associated with seagrasses, but this was not noted in open Gulf collections. Both species were seldom collected beyond 9.2 m depths. The most abundant bivalves was the marsh clam, Rangia cuneata, confined to brackish areas of the Peace and Myakka Rivers. At lower salinities R. cuneata were larger and had more size classes.

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ACC 2412; TYPE P; YEAR 1979
GOFORTH, H.W.; THOMAS, J.R.;
PLANTING OF RED MANGROVES (RHIZOPHORA MANGLE L.) FOR STA ILIZATION OF MARLSHORELINES IN THE FLORIDA KEYS.

BIBL IN: D.P. COLE (ED.), WETLANDS RESTORATION AND CREATON: PROC. OF SIXTH ANNU. CONF. MAY 16, 1979. TAMPA, FL. 357 P.

KEYWORD: Monroe, flora

ABSTRACT: Three developmental stages of red mangroves (i.e., propagules, seedlings, and small trees) were planted to provide erosion protection along three separate sections of marl shoreline at Key West, Florida. Transplants of small mangrove trees were highly successful in all three shorelines and exhibited the highest survival of the three stages. Degree of exposure to erosion and/or burial proved most important in determining seedling survival.

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ACC 2017; TYPE P; YEAR 1978
GOLDBERG, E.D.; ET AL.;
THE MUSSEL WATCH.

BIBL ENVIR. CONSERV. 5(2):101-125.

KEYWORD: petroleum, hydrocarbon, pollution, coastal, pollutant, mollusc

ABSTRACT: The levels of 4 sets of pollutants (heavy metals, artificial radionuclides, petroleum components, and halogenated hydrocarbons) were measured in U.S coastal waters, using bivalves as sentinal organisms for indicating levels of pollutants. The strategies of carrying out this program were outlined and the results from the first year's work were reported. Varying degrees of pollution in U.S. coastal waters were indicated by elevated levels of pollutants in the bivalves, comprised by certain species of mussels (Mytilus) and oysters (Ostrea; Crassostrea) and collected at over 100 localities.

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ACC 2413; TYPE P; YEAR 1971
GOLDBERG, W.M.;
A NOTE ON THE FEEDING EHAVIOR OF THE SNAPPING SHRIMP SYNALPHEUS FRITZMUELLERI COUTIERE.

BIBL CRUSTACEANA.

KEYWORD: Monroe, behavior, shrimp, feeding habit

ABSTRACT: The feeding behavior of the snapping shrimp, Synalpheus fritzmuelleri, was described from specimens inhabiting the base of sea fans (Gorgonia ventalina) collected from the Fowey Rocks area of the northern Florida Keys. Use of the chelipeds, shell opening methods, and prey items are discussed.

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ACC 2544; TYPE P; YEAR 1973
GOLDBERG, W.;
ECOLOGICAL ASPECTS OF SALINITY AND TEMPERATURE TOLERANCES OF SOME REEFB DWELLING GORGINIANS FROM FLORIDA.

BIBL CARIBB. J. SCI. 13(3-4):173-177.

KEYWORD: salinity, temperature, gorgonian, stress

ABSTRACT: Optimal, marginal, and terminal extremes for salinity and temperature were determined for each of 6 species of reef-dwelling organisms. Comparisons were made with scleractinian tolerances, and it was concluded that although both groups had similar temperature ranges, gorgonians were somewhat more stenohaline. Examples of ecological restriction by thermal and saline extremes were discussed.

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ACC 2545; TYPE P; YEAR 1970
GOLDBERG, W.M.;
SOME ASPECTS OF THE ECOLOGY OF THE REEFS OFF PALM EACH COUNTY, FLORIDA, WITH EMPHASIS ON THE GORGONACEA AND THEIR ATHYMETRIC DISTRI UTION.

BIBL MASTER'S THESIS. FLORIDA ATLANTIC UNIVERSITY, BOCA RATON, FL.

KEYWORD: ecology, reef, gorgonian, distribution, temperature, salinity, DO, turbidity, currents, light

ABSTRACT: An investigation of gorgonian populations was made from the three reef terraces located off southern Palm Beach county, Florida. Temperature tolerance tests indicated that the gorgonians were somewhat eurythermal. It was assumed that temperature did not limit gorgonian distribution. It was likewise concluded that salinity does not affect the bathymetric distribution of these animals. Current data revealed that strong bottom currents were rare and thus could not affect the distribution of gorgonian populations significantly. Current was, however, responsible for the orientation of some species. Turbidity was also discounted as a factor in the distribution of gorgonians.

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ACC 2546; TYPE P; YEAR 1973
GOLDBERG, W.M.;
THE ECOLOGY OF THE CORAL OCTOCORAL COMMUNITIES OF THE SOUTHEAST FLORIDA COAST: GEOMORPHOLOGY, SPECIES COMPOSITION, AND ZONATION.

BIBL BULL. MAR. SCI. 23(3):465-488.

KEYWORD: coral, community, scleractinian, octocorallia, depth

ABSTRACT: Three parallel submarine terraces found along the southeast coast of Florida, stretching from Miami through Palm Beach County were described. The central portion of this area near southern Palm Beach County was analyzed with respect to geomorphology, community composition, and zonation from the low-tide mark to a depth of 50 m. Twenty seven species of scleractinian corals and 39 species of gorgonians were found here and defined a typical coral reef community farther north than had been previously acknowledged. Gorgonian diversity was maximal at a depth of 15.20 m, while scleractinians were most diverse in shallower water. Studies of gorgonian biomass indicated a trend toward large numbers of small individuals in low-diversity environments. A mean density of 25.1 colonies/sq. meter gave these reefs the highest concentration of gorgonians yet recorded in the Caribbean region.

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ACC 4325; TYPE P; YEAR 1973
GOLDEN, J.H.;
SCALE INTERACTION IMPLICATIONS FOR THE WATERSPOUT LIFE-CYCLE.

BIBL BOSTON AMER. METEOROL. SOC. :207-212.

KEYWORD: storm, meteorological, wind

ABSTRACT: Not available.

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ACC 4326; TYPE P; YEAR 1974
GOLDEN, J.H.;
LIFE CYCLE OF FLORIDA KEYS' WATERSPOUTS, PT 1.

BIBL J. APPL. METEOROL. 13(6):676-692.

KEYWORD: storm, wind, meteorology

ABSTRACT: Not available.

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ACC 935; TYPE ; YEAR 1972
GOODYEAR, A.C.; WARREN, L.O.;
FURTHER OBSERVATIONS ON THE SUBMARINE OYSTER SHELL DEPOSITS OF TAMPA BAY.

BIBL FLA. ANTHROP. 25:52-66.

KEYWORD: coastal water, oyster, reef, socioeconomic, distribution, mollusc

ABSTRACT: Not available.

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ACC 4047; TYPE P; YEAR 1982
GORDON, D.J.;
SYSTEMATICS AND DISTRIBUTION OF LARVAL FISHES OF THE SUBFAMILY OPHIDIINAE (PISCES, OPHIDIIDAE) IN THE EASTERN GULF OF MEXICO.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 121 P.

KEYWORD: icthyoplankton, seasonality, distribution, fish, biology, systematic, water column

ABSTRACT: Samples of ichthyoplankton from 15 survey cruises conducted from 1971 to 1974 in the eastern Gulf of Mexico shelf and slope region were examined for larvae of the subfamily Ophidiine. Larvae were identified to the lowest possible taxonomic level. The developmental morphology, osteology and pigmentation is described, as is the seasonal, bathymetric and geographical distribution of the larvae. The systematic value of larval character states in this groups is discussed. Eight types of larvae were isolatad. Larvae of the species Otophidium omostigmum, Ophidion selenops, Lepophidium jeannae, and Lepophidium staurophor were identified. Three types of larvae could not be identified to a single species; each represents a mixture of more than one species. Ophidion Type I larvae represent larvae of the species Ophidion holbrooki, O. beani and an undescribed species of Ophidion. Ophidion Type 2 larvae represent larvae of the species Ophidion welshi and Ophidion grayi. Lepophidium Type 1 larvae represent larvae of the species Lepophidium graellsi and L. marmoratum. Another kind of larva, designated Type A, belongs to either Otophidium dormitator or an unknown ophidiin species. Within a type of larva, significant differences in the abundance of larvae were found between depths and between seasons. Peaks in abundance occurred in spring and fall in larvae of Ophidion selenops and Ophidion Type I and Type 2, with decreased numbers present in August and winter months. Larvae of Otophidium omostigmum and Lepophidium were found in greater abundance in May, with no well defined trend apparent during the rest of the year.

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ACC 2188; TYPE P; YEAR 1978
GORE, R.H.; SCOTTO, L.E.; BECKER, L.J.;
COMMUNITY COMPOSITION, STABILITY, AND TROPHIC PARTITIONING IN DECAPOD CRUSTACEANS INHABITING SOME SUBTROPICAL SABELLARIID WORM REEFS.

BIBL BULL. MAR. SCI. 28(2):221-248.

KEYWORD: community, crustacean, decapod, feeding habit

ABSTRACT: A survey of the decapod and stomatopod crustaceans inhabiting the sabellariid biotype resulted in 92 species of 52 genera and 22 families. Species composition nd the relative abundance and occurrence of the numerically important species were

similar for the duration of the study. Gut content analyses and predator prey relationships among dominant species indicated that all feed to some extent on the sabellariid worms which construct the substratum of the biotype. In addition, it was determined from the nutritional nodes among the dominant species that tropic partitioning occurs. Th distribution of the 3 dominant crustaceans along the central eastern Florida coastline was shown to follow that of the sabellariid worm itself.

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ACC 2197; TYPE P; YEAR 1977
GORE, R.H.;
DECAPOD CRUSTACEAN COMMUNITY STRUCTURE AND COMPOSITION IN DRIFT ALGAEBBSEAGRASS IOTOPES IN THE INDIAN RIVER, FLORIDA.

BIBL AM. ZOOL. 17(4):920.

KEYWORD: decapod, community, drift algae, seagrass, shrimp, biomass, crustacean

ABSTRACT: Sampling of the study area produced nearly 60,000 decapod crustaceans comprised of 31 species and 14 families. The decapod community was dominated by 5 species. Two alpheid shrimp and a majid crab were also determined to be numerically important benthic species. Positive correlation was found to exist between seagrass-drift algae biomass and the number of decapod; (A) species; (B) individuals; and (C) total crustacean biomass. Data indicated that a complex community trophic structure exists.

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ACC 4048; TYPE P; YEAR 1979
GORE, R.H.; SCOTTO, L.E.;
CRA S OF THE FAMILY PARTHENOPIDAE (CRUSTACEA RACHYURA: OXYRHYNCHIA) WITH NOTES ON SPECIMENS FROM THE INDIAN RIVER REGION IN FLORIDA. MEMOIRS OF THE HOURGLASS CRUISES. VOL. III, PART VI.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 98 P.

KEYWORD: crab, biology, crustacea, distribution, systematic, hourglass, benthic, food habit, life history, ecology, continental shelf

ABSTRACT: Eight species (Cryptopodia concava, Heterocrypta granulata, Mesorhoea sexspinosa, Parthenope agona, P. fraterculus, P. serrata, P. granulata, and Solenolambrus tenellus) in five genera of parthenopid crabs were captured in a 28-month systematic sampling program at ten stations (6-73m) along two transects in the Gulf of Mexico on the central western Florida shelf. These collections were supplemented by additional material (including an additional species, Parthanope pourtalesii), sampled over a two-year period (1973-75) from the continental shelf along the central eastern Florida coast. Twenty-two species of the family Parthenopidae are known from the western Atlantic; twelve occur in the Gulf of Mexico. Species considered herein are tropical in affinity with only two (Parthenope pourtalesii and Heterocrypta granulata) occurring farther north than Cape Hatteras. Four additional Floridan species (Leiolambrus nitridus, Solenolambrus decemspinosus, S. typicus, and Tutankhamen cristatipes) not collected during either survey are also treated. Seven of the thirteen Floridan species have Eastern Pacific analogues. Where equal effort occurred, more specimens in all species were dredged than were trawled, probably because of their semi-burrowing habits. Parthenope agona and P. fraterculus were more abundant in night samples than in day samples; other species showed little difference in abundance between day and night samples. Presence of ovigerous females in samples indicated that several species (Parthenope agona, P. serrata, P. granulata, P. fraterculus, Heterocrypta granulata, and Solenolambrus tenellus) have extended br...

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ACC 417; TYPE; YEAR 1974
GOSSELINK, J.G.; ODUM, E.P.; POPE, R.M.;
THE VALUE OF THE TIDAL MARSH.

BIBL CENTER FOR WETLAND RESOURCES, LOUISIANA STATE UNIVERSITY, BATON ROUGE, LA., LSU-SG-74-03. 3 PP.

KEYWORD: biology, coastal zone, habitat, management, marsh, productivity, resource, socioeconomic

ABSTRACT: Natural tidal marshes are evaluated in monetary terms. By-product production (fisheries, etc.) on a per-acre basis yields a value of only about $100 per year even when the whole value o f the fishery is inputted to the marsh. More intensive uses, such as oyster aquaculture, which preserve many of the natural functions of the marsh-estuarine ecosystem, have a potential up to $1000 per acre per year. The potential for waste assimilation is much higher, about $2500 per acre per year for tertiary treatment. Ummation of the noncompeting uses approaches an ecological life-support value of about $4000 per acre per year, based on the gross primary productivity (in energy terms) of the natural marsh, using a conversion ratio from energy to dollars based on the ratio of Gross National Product to National Energy Consumption. When these annual social values of $2500-4000 are income capitalized at 5% interest the estimated total social values are $50,000-$80,000 per acre. Some estuaries, such as the Potomac or the Hudson, are now performing waste assimilation work of even greater value but such estuaries are overloaded to the point of degradation. Analysis based on the total value of the life support role of a natural tidal marsh-estuary suggests that a strategy of optimization in land use planning should replace or supplement reliance on the pricing system which is inadequate for preservation

of natural systems that increase in value with the intensity of adjacent development.

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ACC 1089; TYPE; YEAR 1980
GOSSELINK, J.G.;
TIDAL MARSHES BTHE OUNDARY ETWEEN LAND AND OCEAN.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C., FWLS OB-80\15. 12 PP.

KEYWORD: biology, ecology, life history, marsh, nursery area, nursery areas

ABSTRACT: Not available.

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ACC 582; TYPE; YEAR 1956
GOULD, H.R.; STEWART, R.H.;
CONTINENTAL TERRACE SEDIMENTS IN THE NORTHEASTERN GULF OF MEXICO.

IN: J.L. HOUGH AND H.W. MENARD (EDS.). FINDING ANCIENT SHORELINES.

BIBL SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS. SPECIAL PUBLICATION 3, TULSA, OK.

KEYWORD: Pleistocene, continental shelf, geology, sediment, historic geology

ABSTRACT: Not available.

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ACC 2092; TYPE P; YEAR 1978
GOULD, G.F.; MOBERG, M.L;
ANALYSIS OF MARINE SAMPLES FROM THE OUTER CONTINENTAL SHELF OF MISSISSIPPI, ALA AMA, AND FLORIDA (MAFLA) FOR HIGH MOLECULAR WEIGHT HYDROCAR ONS IN ENTHIC SAMPLES.

IN: MAFLA FINAL REPORT (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL STUDY. 1977/1978. VOL II, CHAPT. 8.

BIBL DAMES AND MOORE, INC. FOR BLM CONTRACT #AA550-CT7-34:494-530.

KEYWORD: hydrocarbon, benthic, sediment, demersal fish, epifauna, MAFLA

ABSTRACT: Analysis of 976 benthic sediments, demersal fish, and macroepifaunal samples was conducted for high molecular weight hydrocarbon. Some pooling of small samples was required. Results appear to be comparable to those reported for earlier MAFLA studies. Laboratory techniques are described.

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ACC 2093; TYPE P; YEAR 1978
GOULD, G.F.; MOBERG, M.L;
ANALYSIS OF MARINE SAMPLES FROM THE OUTER CONTINENTAL SHELF OF MISSISSIPPI, ALA AMA, AND FLORIDA (MAFLA) FOR TRACE METALS IN DEMERSAL FISH AND MACROEPINFAUNA.

IN: MAFLA FINAL REPORT (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL STUDY. 1977/1978). VOL II. CHAPT. 5.

BIBL DAMES AND MOORE, INC. FOR BLM CONTRACT #AA550-CT7-34:406.422.

KEYWORD: trace metal, demersal fish, epifauna, MAFLA

ABSTRACT: A total of 605 demersal fish and macroepifaunal samples were analyzed for trace metals. Smaller samples required pooling. Results appear to be comparable to those reported for earlier MAFLA studies.

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ACC 623; TYPE; YEAR 1970
GRADY, J.R.;
DISTRI UTION OF SEDIMENT TYPES NORTHERN GULF OF MEXICO.

BIBL NATIONAL MARINE FISHERIES SERVICE, BIOLOGICAL LABORATORY, GALVESTON, TX. 1 PP.

KEYWORD: continental shelf, continental slope, distribution, geology, sediment

ABSTRACT: This is a sediment distribution map of the northern Gulf of Mexico. The map indicates the sediments from the shoreline to depths from 100 to 1,000 meters.

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ACC 1094; TYPE; YEAR 1973
GREEN, F.M.;
NITROGEN FIXATION IN SALT MARSHES OF THE NORTHERN GULF COAST OF FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 57 PP.

KEYWORD: benthic flora, nitrogen, nutrient, marsh

ABSTRACT: The acetylene reduction method for determination of nitrogen fixation was used to describe nitrogen fixation in salt marshes on the northern Gulf coast of Florida. Three plots on one transect at each of 2 stations were monitored biweekly from January 1971 to February 1972. Irregular measurements were made at 4 other stations.

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ACC 2414; TYPE P; YEAR 1982
GREGORY, D.R., JR.; LABISKY, R.F.; COMBS, C.L.;
REPRODUCTIVE DYNAMICS OF THE SPINY LO STER PAGULIRUS ARGUS IN SOUTH FLORIDA.

BIBL TRANS. AM. FISH SOC. 111:575-584.

KEYWORD: Monroe, biology, spiny lobster, reproduction, length

ABSTRACT: The reproductive biology of the spiny lobster Pagulirus argus was studied in five different habitats in the lower Florida Keys between July 1975 and August 1976. A total of 3,235 females were captured in commercial wooden slat traps. The minimum size of reproductive maturity was 70 mm carapce length (CL). Maximum reproductive activity occurred among females in the 80-85 mm size class. Although reproduction occurred from April to September, it was most prevalent in May and June. The number of reproductively active females was greater in Atlantic habitats than at Gulf sites. Legally protected females (<76.2 mm CL) were responsible for only 14% of the annual egg production; females in the 75-85 mm class contributed 48% of th annual egg production. It is concluded that the minimum size limit be increased to 85 mm CL to protect the portion of the lobster population with the greatest reproductive potential.

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ACC 4049; TYPE P; YEAR 1980
GREGORY, D.R., JR.;
REPRODUCTION DYNAMICS OF THE SPINY LO STER, PANULIRUS ARGUS (LATRIELLE), IN SOUTH FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF FLORIDA, GAINESVILLE, FL. 56 P.

KEYWORD: biology, crustacea, spiny lobster, recruitment, reproduction, spawning area, tagging, benthic, invertebrate

ABSTRACT: The reproductive biology of the spiny lobster, Panulirus argus, was studied in two Gulf of Mexico habitats (shallows and mid-depth) and three Atlantic Ocean habitats (shallows, patch reef, and deep reef) in the lower Florida Keys during the 19 months, July 1975-August 1976. The minimum size of reproductive maturity, expressed by carapace length (CL), was 70 mm., none of 1,214 females smaller than 70 mm CL was ovigerous, and only 11 (< 1%) possessed spermatophores. Sixty-two percent (2,021) of the 3,235 females sampled were reproductively mature (>70 mm CL). Reproductive activity was greatest among females in the 80-85 mm CL size class; the mean size of 62 ovigerous females was 83.2 mm CL. Reproduction occurred during the months of April-September, but was most prevalent in May and June. Reproduction in the lower Keys was restricted to the Atlantic; none of 792 mature Gulf females was reproductively active whereas 257 (21%) of 1,235 mature Atlantic females were ovigerous or spermatophoric. In the Atlantic, active reproduction was associated with reef substrates; 25% occurred on the Patch Reef and 75% on the Deep Reef. During the reproductive season (April-September), sex ratios were skewed toward females in reef habitats but toward males in nonreef habitats. A fecundity schedule revealed that only 16% of the annual egg production was contributed by legally protected females (CL less than or equal to 75 mm). The most productive size class consisted of females newly recruited to the fishery (75-85 mm CL); these females contributed about half (47%) of the total annual egg production. The reproductive potential of this lo...

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ACC 2094; TYPE P; YEAR 1970
GREINER, G.O.G.;
DISTRI UTION OF MAJOR ENTHONIC FORAMINIFERAL GROUPS OF THE GULF OF MEXICO CONTINENTAL SHELF.

BIBL MICROPALEONTOLOGY 16(1):83-101.

KEYWORD: foraminifera, temperature, salinity, depth, carbonate

ABSTRACT: Results of an earlier study are expanded upon in this study of the distribution of major foraminiferal groups in the Gulf of Mexico. The three major groups of foraminifera; agglutinated, hyaline, and porcelaneous wall types, are compared in their need for the availability of CaC03. CaC03 availability is dependent on temperature, salinity, and hydrostatic pressure. The three wall types have different methods of obtaining CaC03 and are therefore affected differently by environmental variables.

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ACC 2415; TYPE P; YEAR 1974
GRIFFIN, G.M.;
CASE HISTORY OF A TYPICAL DREDGEBFILL PROJECT IN THE NORTHERN FLORIDA KEYS, EFFECTS ON WATER CLARITY, SEDIMENTATION RATES AND IOTA

BIBL HARBOR BRANCH FOUND., INC. PUBL. NO. 33.

KEYWORD: Monroe, suspended, sediment, seagrass, reef, turbidity, dredging

ABSTRACT: A typical "hard rock" dredge-fill project on the Atlantic side of Key Largo was monitored for 390 days in order to document th amount of

suspended sediment produced, its distribution and the effects on water clarity and benthos near the dredge. The area of the plume influence was determined to rarely exceed the limits of an area extending 0.3 nautical miles along shore and 0.33 nautical miles offshore, or 0.1 s. n.mi. The value of turbidity diapers was discussed and it was concluded that they need to be redesigned to eliminate leaks and that proper positioning is crucial. No detectable influence of the dredge on the seagrasses or other inshore biota near the canal was found, nor were any abnormal changes detected in the reef. Compared to hydraulic dredging, "hard rock" dredging was found to have less impact on water clarity, sedimentation rates and biota, largely because the concentration in the plume was lower. Also, the material being dredged was the rather inert Key Largo limestone which is less apt to contain pesticides, toxic metals, or oxygen-demanding organic debris.

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ACC 2095; TYPE P; YEAR 1977
GRIMM, D.E.; HOPKINS, T.S.;
PRELIMINARY CHARACTERIZATION OF THE OCTOCOROLLIAN AND SCLERACTINIAN DIVERSITY AT THE FLORIDA MIDDLE GROUND.

BIBL PROC. THIRD INTERNAT. CORAL REEF SYMP., MIAMI, FL. MAY 1977. 1:135.142.

KEYWORD: coral, scleractinia, diversity, zoogeography, octocorallia, distribution

ABSTRACT: Transects at 6 sites on the Florida Middle Grounds were sampled in September 1975 and February/March 1976 to determine the species composition and diversity of the coral fauna. Range extensions were recorded for both scleractinian and octocorallian species. Diversity of octocorals was highest at northern stations; whereas scleractinians had the greatest diversity at southern stations. Both groups exhibited a regular zonation pattern despite a high degree of habitat variability. The coral communities of the Florida Middle Grounds are thought to represent Pioneer species occurring in marginally favorable environment.

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ACC 4192; TYPE P; YEAR 1977
GUINN, V.P.; ET AL.;
NEUTRON ACTIVATION ANALYSIS TRACEB ELEMENT STUDIES IN CONNECTION WITH THE OFFSHORE DRILLING FOR OIL.

BIBL PROC. INT. CONF. NUCL. METHODS ENVIRON. ENERGY RES., 3RD J. R. VOGT (ED). 303-311.

KEYWORD: offshore drilling, pollution, sediment

ABSTRACT: Not available.

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ACC 302; TYPE; YEAR 1976
GULF SOUTH RESEARCH INSTITUTE;
TRACE METAL ANALYSIS: QUALITY CONTROL FOR MAFLA (MISSISSIPPI, ALA AMA, FLORIDA) 4 AND SOUTH TEXAS 2 INVESTIGATIONS.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-76/5. 204 PP

KEYWORD: biology, ecology, fishery, geology, heavy metal, oceanography, water quality, zooplankton, trace metal, MAFLA

ABSTRACT: A comprehensive quality control program, Contract No. 08550-CT5-49, was conducted by Gulf South Research Institute (GSRI) in support of the Mississippi, Alabama, Florida (MAFLA) OCS Monitoring and South Texas OCS Baseline program for the Bureau of Land Management, Department of the Interior. A total of 241 marine environmental samples including 10 suspended particulates, 31 zooplankton, 19 paint chip samples, 75 sediment and 106 epifauna samples were subjected to quality control trace metal analysis.

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ACC 400; TYPE ; YEAR 1981
GULF OF MEXICO FISHERIES MANAGEMENT COUNCIL;
DRAFT FISHERY MANAGEMENT PLAN ENVIRONMENTAL IMPACT STATEMENT AND REGULATORY ANALYSIS FOR THE GROUNDFISH IN THE GULF OF MEXICO.

BIBL GULF OF MEXICO FISHERIES MANAGEMENT COUNCIL, TAMPA, FL. 39 PP

KEYWORD: biology, management, fishery, fishery statistics, socioeconomic

ABSTRACT: Not available.

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ACC 410; TYPE; YEAR 1977
GULF STATES MARINE FISHERIES COMMISSION;
GULF STATES MARINE FISHERIES COMMISSION TWENTYBEIGHTHANNUAL REPORT 1976B1977TO THE CONGRESS OF THE UNITED STATES AND TO THE GOVERNORS AND LEGISLATORS OF ALA AMA, FLORIDA, LOUISIANA, MISSISSIPPI AND TEXAS.

BIBL GULF STATES MARINE FISHERIES COMMISSION, OCEAN SPRINGS, MS. 48 PP

KEYWORD: coastal water, management, resource, fishery, geology, continental shelf

ABSTRACT: Not available.

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ACC 682; TYPE; YEAR 1981
GULF OF MEXICO REGIONAL TECHNICAL WORKING GROUP;
GULF OF MEXICO, REGIONAL TRANSPORTATION MANAGEMENT PLAN.

BIBL BUREAU OF LAND MANAGEMENT, GULF OF MEXICO OCS REGIONAL OFFICE, NEW ORLEANS, LA. 139 PP.

KEYWORD: coastal zone, gas, management, oil transport, oil, operations, continental shelf

ABSTRACT: The Gulf of Mexico RTMP consists of two planning levels due to existing leasing and development conditions. The area of jurisdiction for Florida (eastern Gulf) down to the 26 degree N latitude line is at Level II Planning. The four other Gulf states have produced Level III plans. The federal OCS jurisdiction has been evaluated at the third eve. Th RTMP, therefore, is made up of the inregrated individual state and federal plans at the appropriate level of planning. As changes in the region occur due to the leasing schedule, sales, and discoveries, the RTMP will be updated based on the three-level planning system. To be effective, a planning system in the Gulf of Mexico must address the current situation of oil and gas activities and the processes associated with transporting the resources to land. The central and western Gulf is noted as having the most developed infrastructure system for oil and gas production in the world, which includes oil refineries, petrochemical processing plants, offshore supply bases, construction yards for pipelines and platforms and other industry-relata facilities. The most intense offshore development is located in the central Gulf, with activity stretching into the western Gulf. In the eastern Gulf, most areas remain largely undeveloped in terms of infrastructure. The existing system of oil and gas related industries extends eastward only to Pascagoula, Mississippi.

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ACC 4050; TYPE P; YEAR 1986
GULF OF MEXICO FISHERY MGMT. COUNCIL AND S. ATLANTIC FISH. MGMT. COUNCIL.
AMENDMENT NO. 1 TO THE FISHERY MANAGEMENT PLAN FOR SPINY LO STER IN THE GULF OF MEXICO AND SOUTH ATLANTIC.

BIBL GULF OF MEXICO FISHERY MANAGEMENT COUNCIL, TAMPA, FL. 103 PP.

KEYWORD: biology, crustacea, commercial fishery, spiny lobster, management, recreational fishery

ABSTRACT: The spiny lobster fishery consists of the spiny lobster, Panulirus argus, and other incidental species of spiny lobster (spotted spiny lobster, Panulirus guttatus; smooth tail lobster, Panulirus laevicauda; and the Spanish lobster, Scyllarides aequinoctialis and Scyllarides nodifer). Previously. only P. argus was encompassed by the fishery management plan for spiny lobster in the Gulf of Mexico and South Atlantic. This amendment brings S. nodifer into the fishery management plan. The spiny lobster fishery occurs principally in the waters off South Florida, with about 50% of the catch taken from the Fishery Conservation Zone. Spanish lobsters are harvested off west Florida and the Florida panhandle, with the catch deriving almost entirely from shrimp vessels using otter trawls. Objectives of the management plan are: (1) to protect long-run yields and prevent depletion of lobster stocks; (2) to increase yield by weight from the fishery; (3) to reduce user group and gear conflicts in the industry; (4) to acquire the necessary information to manage the fishery; and (5) to promote efficiency in the fishery.

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ACC 4051; TYPE P; YEAR 1985
GULF OF MEXICO FISHERY MGMT. COUNCIL AND S. ATLANTIC FISH. MGMT. COUNCIL;
FINAL AMENDMENT I, FISHERY MGMT. PLAN AND ENVIRON. IMPACT STATEMENT FOR COASTAL MIGRATORY PELAGIC RESOURCE IN THE GULF OF MEXICO & S. ATLANTIC REGION

BIBL GULF OF MEXICO FISHERY MANAGEMENT COUNCIL, TAMPA, FL. 187 PP.

KEYWORD: biology, socioeconomic, management, landings (pounds), commercial fishery, pelagic fish, king mackerel, spanish mackerel

ABSTRACT: A 1983 reassessment of the king mackerel stock by fishery scientists developed a maximum sustainable yield for this species at 262. million pounds, well below tha 37 million pounds set in the original plan. The researchers also established the existence of two migratory groups, one of which was being overfished to the level where stock was declining. The plan was, therefore, failing to prevent overfishing and to achieve optimum yield as provided by the first National Standard set forth in the Magnuson Act. The Councils, therefore, determined that it is urgent to amend the plan accordingly, to restore stock and achieve a more valid level of optimum yield based on the recent findings. Because stock recovery will be gradual and because changes in fishing effort and fishing patterns cannot be anticipated, a flexible plan is proposed. The amended plan would provide for annual stock assessments for king and Spanish mackerels and provide needed control to restore and maintain the fish populations near MSY.

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ACC 4052; TYPE P; YEAR 1981
GULF OF MEXICO FISHERY MGMT. COUNCIL AND S. ATLANTIC FISH. MGMT. COUNCIL;
FISHERY MANAGEMENT PLAN, ENVIRONMENTAL IMPACT STATEMENT, AND REGULATORY ANALYSIS FOR SPINY LO STER IN THE GULF OF MEXICO AND SOUTH ATLANTIC.

BIBL GULF OF MEXICO FISHERY MANAGEMENT COUNCIL TAMPA, FL. 149 PP.

KEYWORD: biology, crustacea, spiny lobster, management, commercial fishery, recreational fishery, landings (pounds), invertebrate

ABSTRACT: This report describes the probable impacts of implementing regulations for the spiny lobster fishery management plan. The spiny lobster fishery consists of the spiny lobster, Panulirus argus, and other incidental species of spiny lobster which inhabit coastal waters of and the FCZ of the Gulf of Mexico and the South Atlantic Fishery Management council areas and which are pursued by commercial and recreational fishermen. The maximum sustainable yield was estimated as 12.7 million pounds annually. Optimum yield was considered to be all lobster more than 3.0 inches carapace length or not less than 5.5 inches tail length harvested by commercial and recreational fishermen given existing technology and prevailing economic conditions. Expected annual harvest for 1981 was 8.0 million pounds.

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ACC 4053; TYPE P; YEAR 1982
GULF OF MEXICO FISHERY MGMT. COUNCIL AND S. ATLANTIC FISH. MGMT. COUNCIL;
FISHERY MANAGEMENT PLAN FOR CORAL AND CORAL REEFS OF THE GULF OF MEXICO AND SOUTH ATLANTIC.

BIBL GULF OF MEXICO FISHERY MANAGEMENT COUNCIL, TAMPA, FL. 225 PP.

KEYWORD: biology, management, commercial fishery, reef, recreational fishery, coral, benthic

ABSTRACT: The Coral and Coral Reef Fishery of the Gulf of Mexico and south Atlantic is of importance to both recreational and commercial fishermen. This fishery is unique in that its habitat and nonconsumptive value greatly exceed its value as a harvested product. Evaluating th economic impact of proposed regulations in a quantitative manner is not possible and appears unnecessary. First, the unique character of the fishery makes it a crucial, if not major, part of the life cycle of several important species of fish and shellfish; the commercial and recreational value of these species would conservatively exceed $300 million annually. While there is no question of the habitat value of coral to marine life in general, there is little or no information available to estimate incremental decreases in value as coral may be destroyed gradually. Thus, only gross values and relationships can be used. Second, the Fishery Management Plan (FMP) and associated regulations would be classified as a minor rule under the criteria of Executive Order 12291 and the Interim Guidelines established by the Office of Associater Adminsitraror for Fisheries. The need for federal regulation through a FMP is critical because the traditional federal role of managing coral and coral reefs in the FCZ has been largely abrogatad in the fishery conservation zone (FCZ) except as it applies to oil and gas exploration and development. Uncontrolled harvesting and subsequent damage to coral and coral reefs will threaten several major fish and shellfish fisheries as well as the nonsumptive value derived from coral. The management measures proposed by the Councils...

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ACC 126; TYPE; YEAR 1979
GUNTER, G.;
THE ANNUAL FLOWS OF THE MISSISSIPPI RIVER.

BIBL GULF RES. REP. 6(3):283-290.

KEYWORD: currents, hydrography, physical process, river discharge

ABSTRACT: The Mississippi River drains two thirds of the lower United States plus 13,000 square miles of Canada. When North America was being colonized by Europeans, the river overflowed its banks about once every 3 years and spread onto the floodplain, which today covers 34,600 square miles of the valley. A natural levee formed alongside the river where the silt was dropped when water left the channel; the levee now slopes away from the river at about 7 feet per mile. This high ground was settled first by the white man at New Orleans in 1717. The spring floods barely topped the natural levee and the original town was protected by a ring levee 3 feet high. As more overflow areas were cut off from the river, the levees increased in height to about 40 feet. The hydraulics of the river became better and today more water and silt flow out to sea. About three fourths of the floodplain is closed off from the river, but in 1882 and 1927, the river took that land back, and in 1973 almost 60% of the 22-million-acre area was flooded. Nevertheless, there have been no levee breaks since the Corps of Engineers took over flood control in 1928. The mean flow of the river since 1900 has been 646,000 cubic feet per second (cfs) moment to moment. The mode, median, quartiles and deciles of annual flows are given, and the measurements of dispersion, tha standard deviation and coefficient of variation are given. The Atchafalaya River distributary has increased considerably at the expense of the Mississippi River since 1858. During the flood year of 1973, the Atchafalaya carried 37% of the total flow. It is estimated that unless it is brought under cont.... The highest for the Atchafalaya was 781,000 cfs at Simmesport on May 12, 1973, the

highest for the Mississippi was at Tarbert Landing on February 19, 1937, at 1,977,000 cfs. Subjectively described floods of 1782, 1828. and 1882 tie in with 1927 and 1973 as 50-year floods. The 1927 and 1973 floods were remarkably similar; the former was the larger. The largest known flow of the river is only 25% less than the maximum which meteorologists say could be generated. Presumably such a flood could be handled without catastrophe.

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ACC 127; TYPE; YEAR 1979
GUNTER, G.; LYLES, C.H.;
LOCALIZED PLANKTON LOOMS AND JU ILEES ON THE GULF COAST.

BIBL GULF RES. REP. 6(3):297-300.

KEYWORD: biology, fish kill, plankton bloom, meteorology, precipitation, nutrient, red tide

ABSTRACT: The point of these remarks is to call the reader's attention to the fact that there are localized plankton blooms taking place at many locations and many times up and down the Gulf coast. They have also been reported on the Atlantic coast. They appear to be responsible for many localized cases of fish kills. Their onset is often characterized as following rainy weather and a few days of calm. It thus appears that some land component or components are washed down by the rains into waters near shore. Whether or not these are the usual fertilizer salts or some trace element that acts as a chelating agent is not known. Such phenomena seem to occur more frequently than they did in the past probably because of increased nutrients flowing into our salt waters in recent years due to various activities of man. Several types of unicellular organisms seem to be involved. Two of them are known, Chaetoceras and Gonyaulax. No human ailment has been reported from the eating of crustaceans or fish caught during a jubilee. However, it is now well recognized that a toxic substance is produced in blooms of naked dinoflagellates.

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ACC 724; TYPE; YEAR 1967
GUNTER, G.;
SOME RELATIONSHIP OF ESTUARIES TO THE FISHERIES OF THE GULF OF MEXICO.

IN: G.H. LAUFF (ED.) ESTUARIES:621-638.

BIBL AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, PUBLICATION NO. 83. WASHINGTON, D.C.

KEYWORD: biology, commercial fishery, estuary, fishery

ABSTRACT: Not available.

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ACC 1088; TYPE; YEAR 1960
GUNTER, G.; CHRISTMAS, J.Y.;
A REVIEW OF LITERATURE ON MENHADEN WITH SPECIAL REFERENCE TO THE GULF MENHADEN, REVOORTIA PATRONIS GOODE.

BIBL U.S. FISH AND WILDLIFE SERVICE, SPEC. SCI. REP. FISH. 363. 31 PP.

KEYWORD: biology, commercial fishery, ecology, fish, fishery, life history

ABSTRACT: Not available.

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ACC 2096; TYPE P; YEAR 1948
GUNTER, G.; WILLAMS, R.H.; DAVIS, C.C.; SMITH, F.G.W.;
CATASTROPHIC MASS MORTALITY OF MARINE ANIMALS AND COINCIDENT PHYTOPLANKTON LOOM ON THE WEST COAST OF FLORIDA, NOVEM ER 1946 TO MAY 1947.

BIBL ECOL. MONOGR. 18.

KEYWORD: phytoplankton, nutrient, meterological, DO, plankton bloom, red tide

ABSTRACT: The effects of phytoplankton blooms on marine organisms were observed between November 1946 and August 1947 on the southern Florida Gulf Coast. In laboratory and field experiments, Gyanodiniun brevis was specifically lethal to marine organisms when it was present in large numbers. An increased supply of nutrient salts caused by meteorological disturbances was suggested to have led to the plankton bloom.

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ACC 2339; TYPE P; YEAR 1965
GUNTER, T.J.; HALL, G.E.;
A IOLOGICAL INVESTIGATION OF THE CALOOSAHATCHEE ESTUARY OF FLORIDA.

BIBL GULF RES. REPT. 2(1):72.

KEYWORD: fish, invertebrate, temperature, salinity, blue crab, estuary, river discharge

ABSTRACT: Collections were made at various regular stations from Beautiful Isle to the Sanibel Island outer beach over the salinity range from fresh water to sea water. The numbers, species and sizes of fishes captured in seines and in trawls within the Caloosahatchee Estuary proper and in the outside waters were presented. In general, the invertebrate population did not change greatly within the estuary with high and

low inflows of fresh water. Outside the estuary the invertebrate populations declined with high discharge.

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ACC 2340; TYPE P; YEAR 1947
GUNTER, G.; SMITH, F.G.; WILLIAMS, R.H.;
MASS MORTALITY OF MARINE ANIMALS ON THE LOWEST WEST COAST OF FLORIDA.

BIBL SCIENCE 105(2723).

KEYWORD: mortality, fish, turtle, crab, shrimp, temperature, salinity, DO, red tide, plankton bloom, water quality

ABSTRACT: The effects of Gymnodinium sp. outbreak between the Dry Tortugas and Boca Grande, Florida, during November 1946 to January 1947 ware briefly documented. Mass mortality of fish, turtles, oysters, clams, crabs, shrimp, barnacles and coquinas were reported. The distribution and abundance of dead animals were estimated. Water quality parameters and plankton composition were monitored in certain areas in an attempt to identify the cause of the mass mortalities.

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ACC 4186; TYPE P; YEAR 1981
GUSEINOV, T.I.;
STUDY OF THE OXIDATIVE NEUTRALIZATION OF DRILLING MUD.

BIBL AZERB. NEFT. KHOZ. (6):35-38.

KEYWORD: drilling mud, pollution, offshore drilling

ABSTRACT: Not available.

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ACC 21; TYPE ; YEAR 1979
HACKNEY, C.T.; BISHOP, T.D.;
THE EFFECT OF HURRICANE O (JULY 11, 1979) ON THE ST. LOUIS AY TIDAL MARSHES.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS. MS. MASGP-79-015. 9 PP.

KEYWORD: detritus, hurricane, physical process, storm surge, water level, remote sensing, aerial survey

ABSTRACT: The effect of a low level hurricane (Bob) on the transport and relocation of marsh debris (dead plant material) was evaluated. Aerial photographs and ground truth data indicated that debris (wrack) was distributed on the marsh along areas of higher vegetation. The mean density of the resultant wrack was 2.19 kg/m2. Approximately 226 x 10 3 kg of unattached dead plant material was removed from the marsh and 7.7 x 10 3 redeposited as wrack. Little or no standing dead plant material was removed. Thus, 218 x 10 3 kg of dead plant material was removed from the 96 ha study area and transported from the marsh system.

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ACC 420; TYPE ; YEAR 1982
HACKNEY, C.T.; DE LA CRUZ, A.A.;
EFFECTS OF FIRE ON RACKISH MARSH COMMUNITIES: MANAGEMENT IMPLICATIONS

BIBL WETLANDS 1:75-86.

KEYWORD: biology, ecology, energy flux, life cycle, management, marsh, productivity, resource

ABSTRACT: Not available.

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ACC 2019; TYPE P; YEAR 1975
HALUSKY, J.G.;
LOCOMOTORY ACTIVITY RHYTHMS IN LUE CRA S, CALLINECTES SAPIDUS, (RATH UN).

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL. 126 P

KEYWORD: blue crab, behavior, light

ABSTRACT: The locomotory rhythm of small groups and individual blue crabs. Callinectes sapidus, was observed in the field and in various laboratory conditions. Crabs exhibited a diurnal-bimodal periodicity. They became active shortly after sunrise, decreased activity during mid-afternoon and again increased activity just before sunset. After sunset and during the hours of darkness, they remained inactive. Much individual variation was found and is discussed.

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ACC 2097; TYPE P; YEAR 1975
HANLON, R.; VOSS, G.;
GUIDE TO SEAGRASSES OF FLORIDA, THE GULF OF MEXICO AND THE CARI EAN REGION.

BIBL SEA GRANT FIELD GUIDE SER. NO. 4. 30 P.

KEYWORD: seagrass, commercial fishery, erosion

ABSTRACT: A field guide to the seagrasses of Florida, the Gulf of Mexico, and the Caribbean region was presented. Included was a key to the grasses, and descriptions of the following species: Thalassia testudinum, Halodule wrightii, Syringodium filiforme, Ruppia martina, Halophila baillonis, Halophila engelmanni, Zostera marina. The importance of the grasses to the welfare of the commercial fisheries was discussed as was their role in the prevention of erosion.

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ACC 1098; TYPE; YEAR 1972
HANNAH, R.P.;
PRIMARY PRODUCTIVITY AND CERTAIN LIMITING FACTORS IN A AYOU ESTUARY.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 53 PP.

KEYWORD: alkalinity, ammonia, nitrate, orthophosphate, photosynthesis, phytoplankton, salinity, secchi disc, temperature, estuary, nutrient

ABSTRACT: Primary productivity and its related limiting factors was studied at 6 stations in Bayou Texar, Pensacola Bay, Florida for one year beginning in April, 1971. Biweekly monitoring and 3 diurnal studies were supplemented by in-situ and laboratory experiments with nutrients in order to describe the factors that effect primary production.

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ACC 442; TYPE; YEAR 1969
HANSEN. D.J.;
FOOD, GROWTH, MIGRATION, REPRODUCTION, AND A UNDANCE OF LAGODON RHOM OIDES AND MICROPOGON UNDULATUS NEAR PENSACOLA, FLORIDA.

BIBL FISH. BULL. 68(1):135-146.

KEYWORD: biology, coastal water, ecology, feeding habit, fish, growth, migration, abundance

ABSTRACT: Not available.

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ACC 51; TYPE ; YEAR 1982
HANSON, R.B.;
INFLUENCE OF THE MISSISSIPPI RIVER ON THE SPATIAL DISTRI UTION OF MICROHETEROTROPHIC ACTIVITY IN THE GULF OF MEXICO.

BIBL CONTRIB. MAR. SCI. 25:181-198.

KEYWORD: biology, carbon-14, continental shelf, salinity, temperature, organic carbon, river discharge

ABSTRACT: Spatial distribution of microheterotrophic activity in the water column of the Mississippi Delta Bight and the Gulf of Mexico was investigated in April and May 1977. Microheterotrophic activity was determined from the uptake of labeled [C14] glucose and the concentration of reactive carbohydrates. Mississippi River water was characterized by particulate organic carbon (POC) concentration and hydrographic data. Microheterotrophic activity decreased with distance offshore and with increasing depth of the water column in the Mississippi Delta Bight. Highest activity was in waters with low salinities and high POC concentrations. Where the salinities were characteristic of open Gulf of Mexico waters, microheterotrophic activities were typically low. Waters with warmest temperatures did not always possess the highest microheterotrophic activity. In surface waters of the Gulf of Mexico, activity was lower than in the Bight and activity decreased with increasing depth. Turnover times of carbohydrates were inversely proportional to the rate of microheterotrophic activity. Reactive carbohydrates did not show any gradients with either distance from shore or depth of the water column. Respiration ([C14] C02) of the labeled glucose was highest in surface waters and decreased with distance from shore. The results suggest that the Mississippi River greatly influences the spatial distribution of microheterotrophic activity in the Mississippi Delta Bight but not in the Gulf of Mexico.

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ACC 2189; TYPE P; YEAR 1981
HANSON, R.B.; TENORE, K.R.; ET AL.;
ENTHIC ENRICHMENT IN THE GEORGIA IGHT RELATED TO GULF STREAM INTRUSIONS AND ESTUARINE OUTWELLING.

BIBL J. MAR. RES. 39(3):417-422.

KEYWORD: continental shelf, distribution, benthic, biomass, meiofauna, nutrient, intrusion, sediment, organic carbon, metabolism, grain size, estuary

ABSTRACT: Twelve stations on the continental shelf of the Georgia Bight were sampled by box core to determine the distribution of benthic biomass (microbiota, meiofauna, and macrofauna), which is believed to be influenced by nutrient inputs from intrusions of deep Gulf Stream waters at the shelf break. Microbiota biomass was lower in the mid shelf than in the inner and outer shelf. Along the shelf break microbiota biomass increased southward toward an area of frequent Gulf Stream intrusions off Florida. Maximum meiofaunal biomass occurred in the mid shelf area off Georgia which is sporadically subject to deep water intrusions. Macrofunal biomass reached its maximum off Florida. Relationships between microbial, meiofaunal and macrofaunal biomass distribution are cited. Values for sediment granulometry, organic carbon, nitrogen content, benthic surface metabolism, and microbial activity are summarized in addition to faunal biomass and density. It is concluded that the mid shelf benthos is generally impoverished due to sporadic and patchy nutrient inputs, while the shelf break and inner shelf benthos are enriched by nutrients from deep Gulf Stream intrusions and estuarine outwelling, respectively.

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ACC 791; TYPE; YEAR 1977
HARPER, D.D.;
DISTRI UTION AND A UNDANCE OF MACRO ENTHIC AND MEIO ENTHIC ORGANISMS.

BIBL IN: E.P. KLIMA (ED.). ENVIRONMENTAL ASSESSMENT OF AN ACTIVE OIL FIELD IN THE NORTHWESTERN GULF OF MEXICO, 1976/1977. NATIONAL MARINE FISHERIES.

KEYWORD: biology, benthic community, benthic fauna, ecology, meiofauna, community structure, abundance, species composition

ABSTRACT: Not available.

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ACC 421; TYPE; YEAR 1983
HARRISON, E.J.; HEATON, T.C.;
LITERATURE REVIEW. DATA SET IDENTIFICATION AND COMPILATION OF DATA OF THE GROUND FISH FISHERY IN THE SOUTH ATLANTIC AND GULF OF MEXICO.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-82-025

KEYWORD: biology, fishery, infauna, diversity, abundance, distribution

ABSTRACT: In order to understand and describe dynamic changes in macroinfaunal assemblages within this area of Mobile Bay, a long-term (18 month) benthic survey was conducted. The specific objectives of the present study were: (1) to identify the macroinvertebrates which occur subtidally at selected sites near the mouth of Mobile Bay; (2) to delineate and describe communities on the basis of species composition, density, and diversity; (3) to describe the spatial distributions and seasonal patterns of faunal assemblages; and (4) to relate faunal patterns (spatially and temporally) to selected environmental and physio-chemical changes in the benthos. Little published information exists on the benthic invertebrate fauna in Alabama's inshore waters, especially the lower portion of Mobile Bay. A review of data available through 1973, along with a generalized characterization and distribution of benthic macrofaunal assemblages found in the Bay (according to Parker, 1960, mentioned earlier), was prepared by Coastal Ecosystems Management, Inc. (1974), as an environmental impact assessment. The proceedings of the "Symposium on the Natural Resources of the Mobile Bay Estuary, Alabama," provided a synopsis of these and other benthic data through 1979.

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ACC 83; TYPE; YEAR 1978
HART, W.E.; MURRAY, S.P.;
ENERGY ALANCE AND WIND EFFECTS IN A SHALLOW SOUND.

BIBL J. GEOPHYS. RES. 83(C8):4097-4106.

KEYWORD: hydrography, mathematical model, meteorology, physical process, wind force, tide, wind, currents

ABSTRACT: Tidal energetics and wind effects in an extensive (3000 km2) shallow (3.5m) sound with two widely separated entrances were studied numerically with a two-dimensional vertically averaged model. A comparison of current predictions with observation from 15 current meter stations under differing tidal regimes proved the reliability of the model. Evaluation of the instantaneous energy balance equation showed the change in energy content to be nearly balanced by input energy flux, frictional energy dissipation being of secondary importance. In contrast to the equipartition of energy in classical long waves, there is on the average eight times more potential energy than kinetic energy. Input energy flow shows preferential pathways; the wide northern entrance mainly shows energy gain to the Sound, the southern entrance shows equal amounts of gain and loss, while small cuts through the barrier island chain serve mainly as conduits for energy loss. When real tidal input is used, the energy balance time-averaged over a diurnal tidal cycle is not in a steady state, and frictional dissipation is the dominant term. Experiments showed that with winds in the 8- to 9-m/s range, extensive setup can occur (20 cm), strongly dependent on wind direction. Increased speeds through the passages can significantly reduce the residence time in the Sound. Relaxation time of the wind perturbations is only about 3 hours.

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ACC 314; TYPE ; YEAR 1972
HASTINGS, R.W.;
IOLOGY OF THE PYGMY SEA ASS, SERRANICULUS PUMILIO (PISCES:SERRANIDAE).

BIBL FISH. BULL. 7(1):235-242.

KEYWORD: biology, coastal water, feeding habit, fish, life history, reproduction

ABSTRACT: During the period from 1968 to 1971, numerous specimens of Serraniculus pumilio, were collected in shallow waters of the northern Gulf of Mexico. This paper presents biological data accumulated from these and other specimens in the fish collection of Florida State University and from scattered literature references regarding the species. The range of S. pumilio extends from North Carolina along the continental margin of the western Atlantic Ocean to Guyana, but it apparently does not occur in the West Indies. It has been collected at depths from 1 to 117 m., usually over sand or shell bottoms near coral or rock reefs or accumulations of mollusk shells. Individuals move about considerably, although they spend much time resting on the bottom. S. pumilio is a synchronous hermaphrodite, but pairs mate to exchange gametes and self-fertilization probably never occurs. Spawning occurs between March and August or September in the northern Gulf of Mexico.

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ACC 599; TYPE ; YEAR 1982
HAVRAN, K.J.; WIESE, J.D.; COLLINS, K.M.; KURZ, F.N.;
GULF OF MEXICO SUMMARY REPORT. OUTER CONTINENTAL SHELF OIL AND GAS INFORMATION PROGRAM.

BIBL U.S. GEOLOGICAL SURVEY, OPEN-FILE REPORT 82-242.

KEYWORD: oil, continental shelf, resource, socioeconomic

ABSTRACT: Not available.

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ACC 128; TYPE; YEAR 1978
HAWES, S R.; PERRY, H.M.;
EFFECTS OF 1973 FLOODWATERS ON PLANKTON POPULATIONS IN LOUISIANA AND MISSISSIPPI.

BIBL GULF RES. REP. 6(2):109-124.

KEYWORD: biology, coastal zone, plankton, population, river discharge, zooplankton

ABSTRACT: Studies to assess the impact of floodwater diversion on plankton populations in coastal waters of Mississippi and Louisiana were conducted from April 23, 1973 through July 13, 1973. Fixed stations in Lake Pontchartrain, Lake Borgne and western Mississippi Sound were sampled once in April, twice in May and June, and once in July. Stations in Terrebonne Parish, Louisiana were visited once in May, June and July. Data are presented on changes in the species composition of zooplankton subsequent to the opening of the Bonnet Carre and Morganza floodways. The hydrographic conditions at the time of sampling are discussed.

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ACC 373; TYPE; YEAR 1970
HEALD, E.J.;
FISHERY RESOURCE ATLAS II, WEST COAST OF FLORIDA TO TEXAS.

BIBL UNIVERSITY OF MIAMI SEA GRANT PROGRAM, MIAMI, FL. SEA GRANT TECHNICAL BULLETIN 4. 174 PP.

KEYWORD: biology, commercial fishery, fish stock, resource, fishing ground, statistics, fish, distribution

ABSTRACT: Not available.

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ACC 2416; TYPE P; YEAR 1970
HEALD, E.J.;
THE EVERGLADES ESTUARY: AN EXAMPLE OF SERIOUSLY REDUCED INFLOW OF FRESH WATER.

BIBL TRANS. AM. FISH. SOC. 99(4):847-848.

KEYWORD: Monroe, salinity, coastal, estuary, hydrology, seagrass

ABSTRACT: A description of reduced freshwater flow to the estuarine regions of the Everglades National Park caused by drainage and irrigation schemes in the central portion of the state was presented. The net result of the freshwater reduction was a lowering of the water table by as much as 6 feet, a gradual landward intrusion of saltwater, increased salinities in the estuarine bays and lagoons, and a reduction in the capacity of the system to withstand stresses of normal drought. At these extremely high salinities, the dominant producer of the bay, Thalassia testudinum is severely limited.

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ACC 4323; TYPE P; YEAR 1979
HEBERT, P.J.; TAYLOR, G.;
EVERYTHING YOU ALWAYS WANTED TO KNOW A OUT HURRICANES. PT 2.

BIBL WEATHERWISE, WASHINGTON, D.C. 32(3):100-107.

KEYWORD: hurricane, hurricane damage

ABSTRACT: This is the second part of a two-part series discussing hurricanes during the 20th century. In Part I, the 129 direct hits by hurricanes to Gulf and Atlantic coast states are analyzed. The Galveston Hurricane of 1900 is the deadliest hurricane on record, accounting for over 6000 deaths. The most intense hurricane to strike the U.S. occurred in 1935, when a storm reading 26.35 barometric in. hit the Florida Keys. The costliest storm to date is Hurricane "Agnes," which caused over $2,100,000,000 worth of damage to Florida and the northeastern U.S.

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ACC 2234; TYPE P; YEAR 1976
HECK, K.L., JR.;
COMMUNITY STRUCTURE AND THE EFFECTS OF POLLUTION IN SEAGRASS MEADOWS AND ADJACENT HA ITATS.

BIBL MAR. BIOL. 35(4):345-357.

KEYWORD: community, pollution, seagrass, abundance, stress, temperature, salinity, turbidity

ABSTRACT: Two areas with large differences in abundance and dominance relationships, related to the presence of pulp-mill effluents, were studied. Several commonly used indicators of pollution stress were tested in these areas and were determined to be ineffective in differentiating between the two.

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ACC 790; TYPE; YEAR 1953
HEDGPETH, J.W.;
AN INTRODUCTION TO THE ZOOGRAPHY OF THE NORTHERN GULF OF MEXICO WITH REFERENCE TO THE INVERTE RATE FAUNA.

BIBL PUBL. INST. MAR. SCI., UNIV. TEX. 3(1):107-224.

KEYWORD: benthic community, benthic fauna, biology, ecology, species composition, zoogeography, invertebrate

ABSTRACT: This estuarine and neritic waters of the northern Gulf of Mexico, especially along the coasts of Texas and Louisiana, are characterized by broad ranges of environmental factors, providing conditions favorable to temperate organisms in winter and tropical organisms in summer. The fauna is a mixture of temperate Atlantic and tropical Caribbean elements, with a very low endemic component. The distribution of many of the Atlantic species occurring in the northern Gulf is characteristically disjunct, they being absent from southern Florida or represented there by stunted individuals or reduced populations. Many of these species were apparently continuous in distribution across northern Florida during high stands of the sea in late interglacial periods of the Pleistocene. The small number of endemic species--about 10% in most invertebrate groups-- may be a reflection of the environmental extremes which enable the development of large populations of wide-ranging adaptable species at the expense of the development of indigenous forms. Similar conditions apparently prevailed well back into the Tertiary, and the evidence of the Cretaceous suggests that the region now bounded by the Gulf Coastal Plain has been in an area of transition between northern and southern environments since that time. The pronounced range of environmental factors has many effects on the communities of the region, and fluctuations in populations are pronounced. Populations in bay waters in particular undergo wide variations as a result of killing cold, high salinities during droughts, and excess drainage of fresh water during floods. Both droughts and killing...

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ACC 4298; TYPE P; YEAR 1976
HEDGES, J.I.; PARKER, P.L.;
LANDBDERIVEDORGANIC MATTER IN SURFACE SEDIMENTS FROM THE GULF OF MEXICO.

BIBL GEOCHIM. COSMOCHIM. ACTA (OXFORD) 40(9):1019-1029.

KEYWORD: sediment, geochemistry, continental shelf, organic carbon

ABSTRACT: Not available.

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ACC 2098; TYPE P; YEAR 1981
HEFFERNAN, J.J.; HOPKINS, T.L.;
VERTICAL DISTRI UTION AND FEEDING OF THE SHRIMP GENERA GENNADAS AND ENTHEOGENNENA (DECAPODA: PENAEIDEA) IN THE EASTERN GULF OF MEXICO.

BIBL J. CRUST. BIOL. 1(14):461-473.

KEYWORD: distribution, shrimp, depth, migration, behavior, feeding habit

ABSTRACT: Two hundred five trawl collections of 2 shrimp genera were made over 3 depth zones in the eastern Gulf of Mexico. Five species of Gennadas were found to migrate daily, with the majority of the population concentrating at 650-850 m in the day and 150-400 m at night. Bentheogennena intermedia inhabits depths below 900 m. The most abundant species is G. valens, comprising 63% of the Gennadas catch. Stomach contents analysis showed all 6 species to have similar diets of small (1.5 mm) plankton, primarily copepods. Structural adaptations for capture of prey items are discussed and evidence for temporal-spatial resource partitioning between species is evaluated.

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ACC 2417; TYPE P; YEAR 1975
HEIN, F.J.; RISK, M.J.;
IOEROSION OF CORAL HEADS: INNER PATCH REEFS, FLORIDA REEF TRACT.

BIBL BULL. MAR. SCI. 25(1):133-138.

KEYWORD: Monroe, coral, reef, sponge, polychaete, wave, erosion

ABSTRACT: Bioerosion of 6 species of massive reef corals from Hens and Chicken Reef, southwest to Tavernier, Florida, was examined by x-ray radiography. Three groups of boring organisms were identified from 8 coral heads: boring sponges, spionid polychaetes, and mytilid bivalves. Sponges and spionids were responsible for reworking from 7.1% to 68.9% of the skeleton volume. Bioerosion was concentrated at the base and around the periphery of the coral heads, decreasing their ability to withstand wave shock. Results were compared with those of other bioerosion studies of coral. Calculated annual rates of bioerosion exceeded estimated rates of skeletogenesis. Sediment production by mytilid bivalves and boring sponges equalled 15% of the volume of the primary skeletal framework.

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ACC 2418; TYPE P; YEAR 1971
HENRIX, G.Y.;
A SYSTEMATIC STUDY OF THE GENUS ALPHEUS (CRUSTACEA: DECAPODA: ALPHAEIDAE) IN SOUTH FLORIDA.

BIBL PH.D. DISSERTATION. UNIVERSITY OF MIAMI, MIAMI, FL.

KEYWORD: Monroe, crustacea

ABSTRACT: An historical resume of species of Alpheus reported from the western Atlantic and a survey of the literature on the family Alphaidae were presented. The family Alpheidae and the genus Alpheus were diagnosed and the systematic relationship to other families and genera were discussed. A key to the species of Alpheus found in the western Atlantic was also presented. Twelve species of Alpheus including one new

species were described in detail and illustrated. Five reports of species represented range extensions from the Caribbean.

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ACC 443; TYPE; YEAR 1978
HENWOOD, T.A.; JOHNSON, P.; HEARD, R.W.;
FEEDING HA ITS AND FOOD OF THE LONGSPINED PORGY, STENOTOMUS CAPRINUS EAN.

BIBL NORTHEAST GULF SCI. 2(2):133-137.

KEYWORD: biology, ecology, feeding habit, fish, demersal fish, behavior

ABSTRACT: The longspined porgy, Stenotomus caprinus Bean, is an abundant species in the 40 to 100 meter depth range over much of the northern and western Gulf of Mexico. Gunter & Knapp (1951), Siebenaler (1952), Hildebrand (1954), Caldwell (1955), Roithmayr (1965), Moore et al. (1970), Perry (1970), Franks et al. (1972) and Chittenden & McEachran (1976) have documented the occurrence of this species in the 20 to 120 meter range. Despite ample evidence that the porgy is a major member of the offshore demersal fish population, there have been no published reports on the feeding behavior or food of this fish. This study was undertaken in the hopes of characterizing major food items and feeding patterns within the species.

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ACC 809; TYPE ; YEAR 1978
HENWOOD, T.A.;
LIFE HISTORY OF THE LONG SPINED PORGY, STENOTOMUS CAPRINUS

BIBL MASTER'S THESIS. UNIVERSITY OF SOUTH ALABAMA, MOBILE, AL. 65 PP.

KEYWORD: demersal fish, fish, life history

ABSTRACT: Specimens of Stenotomus caprinus, the long spined porgy, were captured between 1972 and 1976. Distribution, reproduction, feeding and growth patterns for the species were examined.

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ACC 2341; TYPE P; YEAR 1977
HERWITZ, S.R.;
ELEMENTS OF THE CAYOBCOSTAISLAND ECOSYSTEM, LEE COUNTY, FLORIDA.

BIBL IN: PROC. OF THE FOURTH ANNU. CONF. ON THE RESTORATION OF COAST. VEGETATION IN FLORIDA. P. 152.165.

KEYWORD: Lee, ecosystem, flora, remote sensing, aerial survey

ABSTRACT: An aerial photographic study of vegetation patterns on Cayo-Costa Island, Charlotte Harbor, Florida, recognized 12 habitats on the basis of dominant plant associations. Eight habitats were found to represent stages in the two patterns of succession occurring on the island. Extansive ground truthing revealed 309 species of vascular plants: 176 were herbs (58%), 64 shrubs (21%); 34 trees (11%); 20 vines (6%); and 12 epiphytes (4%).

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ACC 2419; TYPE P; YEAR 1954
HESS, W.E.;
AN ECOLOGICAL STUDY OF SOME FOULING ORGANISMS IN THE KEY WEST AREA.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL.

KEYWORD: Monroe, fouling, substrate, seasonal, biology, hydrography, temperature, salinity, DO, currents, turbidity, artificial habitat

ABSTRACT: An ecological study of some fouling organisms attached to cement seawalls, ship hulls, wooden pilings and glass panels was conducted in the Key West area. Similar species were found on the various substrates, but the pilings and sea wall had a large intertidal fouling biota not found on the continuously submerged panels and ship hulls. The relationship of the major fouling organisms found on the glass panels to the hydrographic conditions was discussed and the seasonal variations in conditions appeared to be the most important relationship between biology and hydrography. It was deduced from comparisons of the fouling at stations around the U.S. that slowly changing ecological conditions are conducive to attachment by many different species in large quantities.

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ACC 673; TYPE ; YEAR 1984
HEWITT, J.E.; BROOKE, J.P.; KNIPMEYER, J.H.;
ESTIMATED OIL AND GAS RESERVES: GULF OF MEXICO OUTER CONTINENTAL SHELF AND CONTINENTAL SLOPE.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO REGIONAL OFFICE, METAIRIE, LA. 21 P.

KEYWORD: continental slope, gas, geology, oil, operations, continental shelf, resource, socioeconomic

ABSTRACT: Remaining recoverable reserves of oil and gas in the Gulf of Mexico Outer Continental Shelf and Continental Slope have been estimated to be about 3.41 billion barrels of oil and 43.7 trillion cubic feet of gas, as of December 31, 1983. These reserves are recoverable from 505 studied fields under the Federal submerged lands off the coasts of Louisiana and Texas. An additional 51 fields, discovered since December 31, 1981, have not been sufficiently developed to permit a reasonably accurate estimate of reserves. Original recoverable reserves are estimated to have been 9.31 billion barrels of oil and 106.2 trillion cubic feet of gas from 521 fields in the same geographic area. Included in this number are 16 fields that are depleted and were abandoned; not included are the 51 insufficiently developed fields. Estimates were made for individual reservoirs in 399 fields and on a fieldwide basis for the other 122 fields.

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ACC 2342; TYPE P; YEAR 1976
HICKS, D.B.; MURPHY, P.; WELDON, R; LLOY, W.; REVELL, D.; CAVINDER, T.R.;
DETERMINING AND MONITORING THE TOXICITY OF AYTEX TO PINK SHRIMP AT SANI EL ISLAND. FLORIDA. JUNE 14B28,1976.

BIBL U.S. ENVIRONMENTAL PROTECTION AGENCY. REGION IV, SURVEILLANCE AND ANALYSIS DIVISION. 34 P.

KEYWORD: Lee, pink shrimp, pesticide, bioassay

ABSTRACT: A pesticide monitoring study was conducted at Sanibel Island consisting of short term static toxicity bioassay and field monitoring for environmental concentrations and toxicity of Baytex in tidal surface waters of the nearshore bay areas and principal canal systems associated with the island. Monitoring was conducted prior to and following an aerial application of the pesticide. The incipient lethal concentration of Baytex to juvenile pink shrimp was found to result in a 100% mortality of juvenile pink shrimp contained in floating cages in the finger fill canal system. It was also found that nearshore aquatic areas were subjected to drift of the pesticide following aerial application.

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ACC 2355; TYPE P; YEAR 1974
HICKS, D.B.; BURNS, L.A.;
MANGROVE META OLIC RESPONSE TO ALTERATIONS OF NATURAL FRESHWATER DRAINAGE TO SOUTHWESTERN FLORIDA ESTUARIES.

IN: BIOLOGY AND MANAGEMENT OF MANGROVES. G.E. WALSH, S C. SNEDAKER, AND H.J. TEAS (EDS.).

BIBL UNIVERSITY OF FLORIDA, GAINESVILLE, FL. 238-255 P.

KEYWORD: Collier, metabolism, nutrient, primary productivity, salinity

ABSTRACT: The response of mangrove metabolism to alterations of freshwater drainage into estuaries was studied in tha Ten Thousand Islands area. Water borne mineral and nutrient transport is dependent on sheet flow of freshwater which has been interrupted by drainage canals recently. Gross primary productivity and diel rates of metabolism were measured. Mangroves responded to a decreasing gradient of freshwater by gross productivity increases, respiration increases, and net productivity decreases.

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ACC 676; TYPE ; YEAR 1983
HIETT, R.L.; CHANDLER, K.A.; RENIERE, A.K.; BOLSTEIN, A.R.;
SOCIOECONOMIC ASPECTS OF MARINE RECREATIONAL FISHING.

BIBL NATIONAL MARINE FISHERIES SERVICE, WASHINGTON, D.C. 101 PP.

KEYWORD: coastal water, recreation, socioeconomic, sport fishing, statistical analysis, recreational fishery

ABSTRACT: The 1981 Socioeconomic Survey of Marine Recreational Fishermen consisted of a telephone survey of approximately 2,400 fishing households and personal interviews with 7,000 anglers at the fishing site

on the three coastal areas of the contiguous United States when the fishing was completed. The onsite interviews were followed by a telephone interview to obtain completed trip information. The survey obtained information in the following areas: (1) information about marine recreational fishermen; (2) information about marine fishing trips in general; (3) trip expenditure information; (4) catch and disposition of catch information; and (5) information about angler satisfaction. Marine recreational fishing is an activity widely participated in along all coastal areas of the contiguous United States. Expenditures associated with fishing are quite large and travel distances substantial. Fish which are caught are kept for eating or returned to the water alive. The great majority of marine anglers are satisfied with their fishing experiences.

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ACC 4238; TYPE P; YEAR 1977
HIGMAN, J.B.;
PROCEEDINGS OF THE GULF AND CARI EAN FISHERIES INSTITUTE NO. 29 ROWNSVILLE, TEXAS (USA) NOVEM ER 8B10,1976.

BIBL PROC. GULF CARIBB. FISH. INST. 183.

KEYWORD: snapper, grouper, shrimp, fishery, brown shrimp, spiny lobster, commercial fishery

ABSTRACT: The 17 papers were presented in 4 sessions: extended jurisdiction. marketing and technology, continental shelf and crustacean. Specific topics concerned the effects of fishing on the Atlantic croaker (Micropogon undulatus); the northern Gulf of Mexico groundfish fishery; commercial snapper-grouper fisheries off South Carolina, USA; incidental catch off the south Carolina shrimp fishery; marked juvenile brown shrimp (Penaeus aztecus) in a Louisiana, USA coastal marsh; trap fishing for spiny lobster (Panulirus argus) in the Bahamas; and spiny lobster studies in south Florida. Graphs, tables and photographs supplement the text.

Appropriate papers are indexed in BIORESEARCH INDEX.

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ACC 4181; TYPE P; YEAR 1981
HILEMAN, B.;
OFFSHORE OIL DRILLING.

BIBL ENVIRON. SCI. TECHNOL. 15(11):1259-1263.

KEYWORD: offshore drilling

ABSTRACT: The author discusses how the rapid development of the outer continental shelf will affect the environment.

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ACC 2509; TYPE P; YEAR 1976
HIXON, R.F.;
STUDIES ON THE A UNDANCE OF ANIMALS CAPTURED IN ARTIFICIAL HA ITATS IN CARD SOUND, FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL.

KEYWORD: Dade, artificial habitat, habitat, substrate, fish, spiny lobster, invertebrate, benthic, community, diversity, temperature, salinity, DO, turbidity, currents

ABSTRACT: Artificial habitats and substrates were used to evaluate the effects of effluents from the Florida Power and Light power plant at Turkey Point. The abundance of fishes and spiny lobsters measured from habitat catches was greater in central Card Sound than near shore due to the more diverse natural environment found in Card Sound. Populations of fishes attracted to the habitats were generally low throughout the year in Card Sound. The spiny lobster was both more abundant and of a larger mean size in Card Sound than previously estimated. Although mesh panel catches showed amphipods to be the most abundant invertebrate taxon, they also indicated tanaids, harpacticoid copepods, ostracods, leptostracans, and caecid gastropods are important members of the Card Sound benthic community. Power plant effluents discharged into Card Sound caused with a change in temperature of 2-3 degree C above ambient, caused some stratification of the Sound during summer. Large amounts of organic debris were carried into the Sound by discharge currents and some erosion occurred in the canal mouth. Favorable conditions were created by effluents near the Card sound canal for particulate feeders, detritivores, and sessile invertebrate predators. The abundance of two species, the gastropod, Meioceras nitidum, and the ostracod, Cypridina squamosa, was reduced by effluent effects. Catches of fishes, lobsters, and mesh panel community diversities were not adversely affected by discharges.

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ACC 358; TYPE; YEAR 1975
HO, F.P.; SCHWERDT, R.W.; GOODYEAR, H.V.;
SOME CLIMATOLOGICAL CHARACTERISTICS OF HURRICANES AND STORMS ON THE GULF AND EAST COASTS OF THE UNITED STATES.

BIBL NATIONAL WEATHER SERVICE, NOAA TECHNICAL DEPARTMENT, NWS-15.

KEYWORD: coastal zone, hurricane, meteorology, physical process, storm

ABSTRACT: Not available.

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ACC 2510; TYPE P; YEAR 1975
HOBERG, C.M.;
RESPONSE OF MATURE, MALE LUE CRA S, CALLINECTES SAPIDUS RATH UN, TO LA ORATORY THERMAL GRADIENTS, WITH NOTES ON MATURE, FEMALE STONE CRA S, MENIPPE MERCENARIA (SAY).

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 134 P

KEYWORD: Dade, blue crab, behavior, stone crab, temperature

ABSTRACT: Thermal gradient responses observed in the field led to the laboratory study of temperature influences on Callinectes sapidus behavior. Crabs were acclimated to ambient summer mean temperatures and subjected to standing and shifting steep gradients over a two day period. Warm acclimated crabs showed a greater preference than slightly cold acclimated crabs for higher temperatures. Blue crabs obtained from Ft. Myers behaved similarly to Biscayne Bay crabs. Comparisons were made with stone crabs.

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ACC 374; TYPE; YEAR 1972
HOESE, H.D.; NELSON. W.R.; BECKERT, H.;
SEASONAL AND SPATIAL SETTLING OF FOULING ORGANISMS IN MO ILE AY AND EASTERN MISSISSIPPI SOUND, ALA AMA.

BIBL ALABAMA MAR. RESOUR. BULL. 8:9-17.

KEYWORD: biology, fouling organism, oyster, salinity, fouling, mollusc, seasonality

ABSTRACT: Not available.

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ACC 774; TYPE: YEAR 1964
HOESE, H.D.;
STUDIES ON OYSTER SCAVENGERS AND THEIR RELATION TO THE FUNGUS DERMOCYSTIDIUM MARINUM.

BIBL PROC. NATL. SHELLFISH. ASSOC. 53:161-174.

KEYWORD: biology, commercial fishery, disease, ecology, oyster, parasite

ABSTRACT: Dermocystidium marinum, a parasitic fungus of oysters, was demonstrated from the stomachs of the snail, Urosalpinx cinerea, from the stomach, intestine and body of three fishes, Gobiosoma bosci, Chasmodes bosquianus, and Opsanus tau, and from the body, especially the setal, of two crabs, Neopanope texana and Rhithropanopeus harrisii. All animals containing D. marinum had scavenged oysters infected by the fungus. A few oysters became lightly infected when kept in aquaria with fishes that had been fed infected oyster tissue. It is concluded that nearly all dying oysters are consumed by animals during periods or normal mortality, so their parasites must pass through the digestive system of scavengers.

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ACC 1083; TYPE; YEAR 1977
HOESE, H.D.; MOORE, R.H.;
FISHES OF THE GULF OF MEXICO: TEXAS, LOUISIANA, AND ADJACENT WATERS.

BIBL TEXAS A&M UNIVERSITY PRESS. 327 PP.

KEYWORD: biology, fish, species composition, zoology, distribution

ABSTRACT: Not available.

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ACC 844; TYPE; YEAR 1974
HOFFMAN, H.J.;
A COMPARISON OF ORGANIC MATTER IN RIVER WATER AND SEA WATER.

BIBL MASTER'S THESIS. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 74 PP

KEYWORD: amino acids, carbohydrate, carbon, nitrogen, phosphate, salinity, organic carbon, chlorophyll, nutrient

ABSTRACT: Particulate and dissolved organic carbon and salinity were measured at 26 stations around the South and Southwest passes of the Mississippi River in an attempt to compare river and sea organic matter. Samples were collected at 4 stations and analyzed for phosphate, chlorophyll A, carbohydrates, amino acids, particulate organic nitrogen and carbon isotope ratios. Samples were collected in October, 1971 during cruise 71-A-12 of the R/V Alaminos.

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ACC 792; TYPE ; YEAR 1979
HOLLAND, J.S.;
ENTHIC INVERTE RATES: MACROINFAUNA AND EPIFAUNA.

IN: ENVIRONMENTAL STUDIES, SOUTH TEXAS OUTER CNTINENTAL SHELF, BIOLOGY AND CHEMISTRY. FINAL REPORT. CHAPTER 17.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA.

KEYWORD: benthic community, benthic fauna, biology, ecology, species composition, infauna, epifauna

ABSTRACT: Not available.

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ACC 2356; TYPE P; YEAR 1962
HOLMES, C.W.;
SEDIMENTS OF THE TEN THOUSAND ISLANDS.

BIBL. MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: Collier, sediment, grain size

ABSTRACT: The nature of the sediments of the Ten Thousand Islands was studied from samples collected at 8 stations during June 1960. Four physiographic areas were identified: mangrove barrier, coarse quartz sand, fine quartz sand, and a mixture of the 2 sand populations. The locations of these areas and the methods of their formation are discussed.

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ACC 2420; TYPE P; YEAR 1978
HOLM, R.F.;
THE COMMUNITY STRUCTURE OF A TROPICAL MARINE LAGOON.

BIBL. ESTUAR. COAST. MAR. SCI. 7:329-345.

KEYWORD: Monroe, community, structure, abundance, diversity, phytoplankton, temperature, salinity, currents, tide, sediment

ABSTRACT: The community structure of a tropical marine lagoon in the upper Florida Keys was described. The amount of vegetation present and the stability of the sediment was found to modify the abundance and diversity of the benthi macrofauna. The uniqueness of this environment made it possible to examine the changes in species abundance and diversity as a detritus-based food web graded into a phytoplankton-based food web.

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ACC 4054; TYPE P; YEAR 1981
HOLMES, C.W.;
LATE NEOGENE AND QUARTERNARY GEOLOGY OF THE SOUTHWESTERN FLORIDA SHELF AND SLOPE.

BIBL. U.S. GEOLOGICAL SURVEY OPEN-FILE REPORT 81-1029. 27 P.

KEYWORD: geophysical, seismic, geology, continental shelf, continental slope, bathymetry, reef, bed form, geologic history

ABSTRACT: Seismic information obtained during a high-resolution geophysical survey of the southwestern Florida (south of lat 26 degrees N) shelf suggests that the modern shelf and slope overlie a karstic Miocene(?) platform. The platform surface is covered by a lens of late Tertiary-Quaternary sediments, which thicken from the central shelf to a maximum of 150 m at the upper slope break and thin against the ridgelike outcrop of the Miocene(?) platform on the upper slope. A 8-km wide north-trending double reef complex on the central shelf separates the post-Miocene sediments offshore from the subcropping Miocane(?), which is thinly covered by a veneer of biogenic sand. Over the thickest post-Miocene section and marking the edge of the modern shelf is a second double-reef complex. The lower reef of this set forms a well-developed 40-m scarp; the upper reef is characterized for most of its extent by a low-magnitude ridge. In addition to the reefs, two strategraphic units are recognized above the Miocene(?): (1) a lower unit of unknown age, which can be traced under the shelf-edge reefs and is continuously onlapping the Miocene(?) ledge of the central shelf; and (2) an upper limit, which is composed of sediment derived from the shelf edge and pelalgic sources and exhibits evidence of downslope creep by its accordianlike morphology on the lowermost portion. A Miocene(?) ridge (400-510 m) below sea level trends north-south along the west-facing Continental Slope of the Florida shelf. This ridge is buried in the Florida Straits region. The reefs that mark the shelf break and central shelf are also being covered by more recent matter...

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ACC 4055; TYPE P; YEAR 1985
HOLMES, C.W.;
ACCRETION OF THE SOUTH FLORIDA PLATFORM, LATE QUATERNARY DEVELOPMENT

BIBL. AM. ASSOC. PETROL. GEOL. BULL. 69(2):149-160.

KEYWORD: geology, geophysical, continental shelf, sediment, seismic, bed form, reef, continental slope, geologic history

ABSTRACT: Stratigraphic information from high-resolution seismic data obtained across the southwest Florida platform indicates that the modern shelf is a constructional platform with Pliocene(?)-Pleistocene and Holocene sediments resting on an eroded karstic Miocene platform. The Miocene surface dips away from the coastline with significant breaks in slope occurring at the center of the shelf and at the shelf edge. At the southwest corner of the platform, this surface crops out to form a terrace. This terrace lies along the west-facing continental slope of the Florida shelf and is progressively buried to the south by younger deposits--reefs and sediment--so that it has no surface expression in the Florida Straits. A paired reef complex rests on the thickest post-Miocene sediments that mark the edge of the modern shelf. The deepest reef forms a well-developed escarpment with its crest buried by approximately 15 m (50 ft) of sediment. The shallower reef is a low swale over most of its extent but develops into a large reef-spit complex (Howell Hook) in the central part of the study area. Within the Pliocene-Pleistocene and Holocene sediments, two stratigraphic units can be delineated: (1) a lower progradational unit of Pliocene-Pleistocene(?) age that can be traced under the shelf-edge reef and continuously onlaps the Miocene(?) surface, and (2) an upper unit of late Pleistocene-Holocene age which is composed of reef and pelagic sediment. Two sedimentary "fans" have been identified on the northern slope and floor of the Florida

Straits. The apices are set in at gaps in the carbonate ridge rimming the southern Florida shelf.

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ACC 4280; TYPE P; YEAR 1978
HOLMES, C.W.; MARTIN, E.A.;
MIGRATION OF ANTHROPOGENICALLY INDUCED TRACE METALS (ARIUM AND LEAD) IN A CONTINENTAL SHELF ENVIRONMENT.

BIBL AMER. CHEM. SOC. 672-676.

KEYWORD: trace metal, barium, continental shelf, sediment, physical, chemical, continental slope, lead, pollution

ABSTRACT: Variation in the rates of sediment accumulation is one of the most important factors affecting physical and chemical processes within a sedimentary basin. During the past decade, a method based on /sup 210/Pb disequilibrium has been devised that enables the rates of sediment accumulation to be measured for the last 150 years (BP), the time encompassed by the industrial revolution of the North American Continent. The rates of sediment accumulation at 22 sites on the Continental Shelf and Upper Continental Slope in the northwestern Gulf of Mexico were determined. The rates varied from zero to greater than 7 mm per year. In an area of rapidly accumulating sediments on the central Texas shelf, south of Matagorda Bay, trace-metal profiles indicate that an increase in barium and lead has taken place in the sediments within the recent past. The rates of sedimentation as calculated by the /sup 210/Pb method reveal that this increase has occurred within the last 25 years. Further inspection of the data indicates that the leading edge of the metal-contaminated sediment is migrating across the shelf at an average rate of 2 km per year.

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ACC 2235; TYPE P; YEAR 1976
HOOKS, T.A.; HECK, K.L; JR.; LIVINGSTON, R.J;
AN INSHORE MARINE INVERTE RATE COMMUNITY STRUCTURE AND HA ITAT ASSOCIATION IN THE NORTHEASTERN GULF OF MEXICO.

BIBL BULL. MAR. SCI. 26(1):99-109.

KEYWORD: community, arthropoda, mollusca, annelida, echinodermata, algae, pollution, structure

ABSTRACT: Monthly trawl samples were collected from unpolluted (Ecofina estuary) and polluted (Fenholloway estuary) waters from July 1971 to December 1972 to compare epibenthic community structure. A total of 79 species were found, representing 4 phyla: Arthropoda, Mollusca, Annelida, and Echinodermata. Although the number of species from each estuary was not significantly different, the Econfina estuary yielded more than 2 1/2 times the number of individuals as the Fenholloway estuary. Abundance of the numerically dominant species was relatively greater in the Econfina estuary. Four different macroinvertebrate assemblages were sampled in the study area, each associated with a different habitat: grassbeds, oyster reefs, mudflats, and red algae.

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ACC 25; TYPE ; YEAR NA
HOPKINS, T.S.;
EFFECTS OF PESTICIDES ON ESTUARINE PRODUCTIVITY.

BIBL NATIONAL MARINE FISHERIES SERVICE, BUREAU OF COMMERCIAL FISHERIES. 40 PP

KEYWORD: benthic fauna, carbohydrate, demersal fish, dissolved oxygen, estuary, flora, nitrate, pelagic fish, pesticide, pollution, productivity

ABSTRACT: Environmental parameters were monitored in Mulatto and Thompson's Bayous. Escambia Bay, Florida. Measurements included salinity, temperature, dissolved oxygen, nitrates, carbohydrates, secchi disc depth, counts and idantifications of fish, benthic animals, and plankton.

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ACC 236; TYPE; YEAR 1973
HOPKINS, T.S;
ZOOPLANKTON.

IN: J.I. JONES, R.E., RING, M.O. RINKEL, AND R.E. SMITH (EDS.). A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERsITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: loop current, biology, coastal water, currents, estuary, zoology, zooplankton

ABSTRACT: Zooplankton in the eastern Gulf, a warm temperature-subtropical region, seems to show distinct seasonality in abundance. In estuaries and on the southwest Florida shelf biomass maximum appears in summer whereas in shelf waters of the central and northeasrern Gulf the seasonal maximum occurs in winter. No seasonal trend is as yet evident for the Loop Current. Annually, averages for zooplankton biomass range from 0.88 to 0.80 ml/m3, 0.02 to 0.10 ml/m3 and 0.01 to 0.10 ml/m3 in estuarine, shelf, and eastern central Gulf regions, respectively. Locally both on the shelf and in estuaries biomass can be much higher. The principal holoplankton species in terms of biomass in estuaries appears to be Acartia tonsa. In summer meroplankton significantly augments plankton biomass in inshore waters. The principal hydrographic factors regulating zooplankton distribution in the eastern Gulf are the Loop Current, Mississippi River, and runoff from other small rivers. Upwelling generated by the Loop Current appears to be responsible for the maximum on the sourhwest Florida shelf while the Mississippi and other river discharge along with cool meteorological conditions may be primarily responsible for winter peaks on the northern Gulf shelf. Biological factors in addition to annual temperature and runoff cycles may affect seasonal abundance of estuarine zooplankton. There is evidence

that ctenophores and scyphomedusae play a major role in regulating dynamics of estuarine microzooplankton. Studies on taxonomic composition of plankton have shown that certain species of pteropods, foraminiferans, and planktonic shrimp can be used to define the...

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ACC 1046; TYPE; YEAR 1971
HOPKINS, T.S.;
EFFECTS OF PESTICIDES ON ESTUARINE PRODUCTIVITY, II.

BIBL NATIONAL MARINE FISHERIES SERVICE.

KEYWORD: estuary, fish, pesticide, phytoplankton, productivity, water quality, PCB, pollution

ABSTRACT: An ecological investigation of Mulatto and Thompson's bayous, Escambia Bay. Florida, was carried out in order to describe water quality and productivity. Water quality was determined biweekly at 15 stations, phytoplankton standing crop at 9 stations, and fish standing crop at 3 stations. Arochlor 1254, a polychlorinated biphenyl, was measured in representative samples of all animals collected.

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ACC 1047; TYPE; YEAR 1971
HOPKINS, T.S.;
EFFECTS OF PESTICIDES ON ESTUARINE PRODUCTIVITY, III.

BIBL NATIONAL MARINE FISHERIES SERVICE.

KEYWORD: estuary, fish, pesticide, phytoplankton, productivity, water quality, PCB, pollution

ABSTRACT: Environmental parameters were measured in Mulatto and Thompson's Bayous. Escambia Bay, Florida, in an effort to describe the effects of pesticides on, productivity. Five water quality parameters were monitored weekly at 12 stations and fish and plankton productivities were measured at 1 and 3 stations respectively. Arochlor 1254, a PCB, was monitored in several fish populations at 3 stations and in an oyster population at one station. Dieldrin. DDD, DDE and DDT were measured in catfish held in cages at one station in Thompson's Bayou.

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ACC 1048; TYPE; YEAR NA
HOPKINS, T.S.;
SPORT FISHING ACTIVITY ON PENSACOLA RIDGE AND PENSACOLA MAIN EACH.

BIBL DAUPHIN ISLAND SEA LAB, DAUPHIN ISLAND, AL.

KEYWORD: demersal fish, fishing pressure, pelagic fish, sport fishing, recreational fishery

ABSTRACT: The sport fishery of Pensacola bridge and Pensacola main beach was studied during 1972. Counts and identifications of fish were made, as well as data on the fishing population/pressure.

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ACC 1050; TYPE; YEAR NA
HOPKINS, T.S.;
CIRCULATION OF ESCAM IA AY, FLORIDA.

BIBL DAUPHIN ISLAND SEA LAB, DAUPHIN ISLAND, AL.

KEYWORD: circulation, currents, physical oceanography, salinity, temperature

ABSTRACT: Temperature, salinity, and dissolved oxygen measurements were made at 42 stations in Escambia Bay at daily to monthly intervals from January to June, 1971. Dye drop studies of circulation patterns were made at 9 stations.

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ACC 1074; TYPE; YEAR 1979
HOPKINS, T.S.;
MACROEPIFAUNA.

IN: THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY. CHAPTER 17.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C.

KEYWORD: crustacea, biology, epifauna, species composition, taxonomy, MAFLA

ABSTRACT: Macroepifaunal invertebrates were collected by dredging and trawling at 19 localities in the MAFLA tract of the eastern Gulf of Mexico over three seasons in 1977-1978. In addition, archived samples, from 20 dredge/trawl and 6 dive stations, were also analyzed. Results report a species list of 51 coelenterates, 260 molluscs, 250 decapod crustaceans, 15 stomatopod crustaceans, 9 Pycnogonida, and 95 Echinodermata to the generic rank and below; 26 Families of the Polychaeta are reported. Molluscs were found to be good potential indicators of seasonality and decapod crustaceans and echinoderms may be good indicators of substrate at certain depths. Faunal assemblages are stronger along contour gradients and species numbers decrease with depth. Each station appears to have a characteristic assemblage which probably relates to such factors as annual temperature and substrate. There is continuing evidence that the MAFLA macroepifauna has its greatest affinites with West Indian stocks.

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ACC 2099; TYPE P; YEAR 1977
HOPKINS, T.S.;
EPIFAUNAL AND EPIFLORAL ENTHIC COMMUNITIES IN THE MAFLA YEAR 02 LEASE AREA (1975/76).

BIBL UNPUBL. REPORT. U.S. DEPARTMENT OF INTERIOR, BLM. WASHINGTON, DC. 98 P.

KEYWORD: benthic, epibiota, mollusc, crustacean, echinoderm, octocorallia, scleractinia, polychaete, sponge, assemblage, reef, loop current, temperature, salinity, DO

ABSTRACT: This report presents the results of the epibiota study of the Bureau of Land Management sponsored program in the Mississippi, Alabama, Florida (MAFLA) outer continental shelf. A total of 236 species of molluscs, approximately 190 species of crustaceans, over 65 species of echinoderms, 25 species of Octocorallia, 30 species of Soleractinia, over 100 species of polychaetes, 48 species of sponges, and 194 species of algae were collected in the study of dredges, trawls and diving. Trellis diagrams portraying faunal similarity between stations and seasons are prssented for each major taxa. Three distinct shelf assemblages were recognized in the study: 1) Middle Shelf I (30-60 m), 2) Middle Shelf II (60-140 m), 3) Deep Shelf (140 m - shelf break). The Florida Middle Ground reef is recognized to contain unique faunal and floral assemblages (dissimilar to the West Florida Garden Bank reef in the Northwestern Gulf of Mexico) that recruit their larvae from the loop current.

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ACC 2100; TYPE P; YEAR 1981
HOPKINS, T.S.; VALENTINE, J.S.;
THE ECHINODERM FAUNA OF THE CONTINENTAL SHELF OF THE EAST AND CENTRAL GULF OF MEXICO.

BIBL INTERNAT. ECHINODERM CONF., TAMPA, FL.

KEYWORD: echinoderm, depth, habitat

ABSTRACT: Approximately 100 echinoderm species covering five classes were identified in bottom studies of the continental shelf of the east and central Gulf of Mexico in waters 30 to 200 m deep from 1974 to 1978. Depth zones and habitats characterized by recurring taxa were classified at 30-60 m, 90-110 m, and 180-200 m. Observations were made of Echinaster, the rare species Opioderma pallidum\n, and an apparently endemic Ophiactis.

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ACC 2101; TYPE P; YEAR 1977
HOPKINS, T.S.; BLIZZARD, D.R.; BRAWLEY, S.A.; ET AL.;
A PRELIMINARY CHARACTERIZATION OF THE IOTIC COMPONENTS OF COMPOSITE STRIP TRANSECTS ON THE FLORIDA MIDDLE GROUNDS, NORTHEASTERN GULF OF MEXICO.

IN: PROC. THIRD INTERNAT. CORAL REEF SYMP. VOL. 1. BIOLOGY P. 31-37

BIBL ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERE, UNIVERSITY OF MIAMI.

KEYWORD: coelenterate, molluscan, crustacean, echinoderm, polychaete, poriferan, invertebrate, reef, ichthyofauna, loop current

ABSTRACT: The coelenterate, molluscan, decapod crustacean, echinoderm, polychaete, and poriferan fauna of the Florida Middle Grounds was described and compared with that of the West Flower Garden Bank of the northwestern Gulf of Mexico. Sharp dissimilarities were found in the composition of the invertebrate faunas of the two reef areas, but their ichthyofaunas were less dissimilar. The Florida Middle Grounds has a more dense seasonal algal flora than does the West Flowar Garden Bank. Both temperate and tropical species occur in the Middle Grounds, which are probably maintained by the Florida Loop Current moving warm water up from the Florida Keys.

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ACC 2102; TYPE P; YEAR 1977
HOPKINS, T.S.; BLIZZARD, D.R.; GILBERT, D K.;
THE MOLLUSCAN FAUNA OF THE FLORIDA MIDDLE GROUNDS WITH COMMENTS ON ITS ZOOGEOGRAPHICAL AFFINITIES.

BIBL NORTHEAST GULF SCI. 1(1):39-47.

KEYWORD: molluscan, substrate, zoogeography, temperature

ABSTRACT: A study was made of the molluscan fauna of the Florida Middle Ground during June and September 1975 and February-March 1976 to determine the effect that discontinual substrates distribution has on molluscan fauna. Of the 75 species collected, more are of the "Caribbean eurythermic" and "Caribbean restricted" forms. Analysis of the results indicate that the zoogeographic status of the Gulf of Mexico should be reconsidered for other faunal groups.

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ACC 4056; TYPE P; YEAR 1982
HOPKINS, T.L.;
THE VERTICAL DISTRI UTION OF ZOOPLANKTON IN THE EASTERN GULF OF MEXICO.

BIBL DEEP SEA RES. 29(9A):1069-1083.

KEYWORD: zooplankton, distribution, community biomass, biology, water column, ichthyoplankton

ABSTRACT: The zooplankton community in the eastern Gulf of Mexico was investigated to determine the quantity and taxonomic composition of forage available to higher trophic levels and to provide a data base for future trophodynamic modelling. Standing stock (1.2 g m-2 dw) in the upper 1000 m is in the range for oligotrophic low latitude boundary currents but is greater than in central gyre areas. Abundance decreases exponentially with depth, over half the biomass occurring in the upper 200 m. Diel variations are apparent, the greatest differences in biomass occurring in the upper 50 m and at 300 to 350 m. Copepods were dominant, contributing over 80% of the number and half the net-caught biomass. The zooplankton community is diverse, 21 genera individually exceeding 1% of the biomass in the 0 to 1000.m layer. Grazers, herbivores, detritivores, omnivores) were 66% of the 0 to 1000 m standing stock and carnivores 34%, their biomass in the epipelagic zone above the base of the thermocline (150 m) at night increasing 46 and 57%, respectively. Zooplankton biomass available as forage for higher trophic levels is most concentrated in the upper 50 m, whereas, paradoxically, the zooplanktivorous micronekton, the myctophid fishes in particular, are centered deeper, primarily between 50 and 150 m.

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ACC 4057; TYPE P; YEAR 1984
HOPKINS, T.L.; LANCRAFT, T.M.;
THE COMPOSITION AND STANDING STOCK OF MESOPELAGIC MICRONEKTON AT 27 DEGREES N 86 DEGREES W IN THE EASTERN GULF OF MEXICO.

BIBL CONTR. MAR. SCI. 27:143-158.

KEYWORD: biology, biomass, community, fish, ichthyoplankton, invertebrate larvae, crustacea, water column, invertebrate

ABSTRACT: A series of oblique 0-1000 m tows (28) made with 6.5 sq. meter Tucker trawls were used to determine the standing stock of micronekton in the eastern Gulf of Mexico in June and September, 1981. The principal groups were semaeostome scyphomedusae, fishes, and crustaceans, which constituted 48.3%, 34.7% and 12.6%, respectively of total micronekton biomass (5371 kg WW/km square). Semaeosome scyphomedusae, though averaging almost half the WW biomass, were uncommon and occurred in only five tows. Cyclothone spp. fishes were the numerically dominant taxa and averaged 34.1% of the total micronekton numbers. Faunal diversity was high with 148 fish and crustacean species being identified. Diel vertical migration was apparent: 45% of the numbers and 55% of the biomass of micronekton migrated into the upper 40 m at night. Comparison with what little geographical information is available revealed that micronekton biomass in the upper 1000 m in eastern Gulf of Mexico is similar to that in waters adjacent to Hawaii but considerably greater than standing stocks in the Caribbean Sea off Puerto Rico.

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ACC 4234; TYPE P; YEAR 1981
HOPKINS, T.L.; ET AL.;
THE LANDWARD DISTRI UTION OF OCEANIC PLANKTON AND MICRONEKTON OVER THE WEST FLORIDA USA CONTINENTAL SHELF AS RELATED TO THEIR VERTICAL DISTRI UTION.

BIBL J. PLANKTON RES. 3(4):645-658.

KEYWORD: distribution, depth, shrimp, fish, currents, crustacea

ABSTRACT: The landward distributions of 69 plankton and 92 micronekton species over the west Florida continental shelf were examined in relation to their vertical distribution in the eastern Gulf of Mexico. Using linear and power-curve regressions, it was found that extent of landward occurrence is significantly correlated with bottom topography in terms of bottom depth and distance from the open Gulf. Epipelagic plankton species were distributed considerable distances across the shelf; the mesopelagic shrimp and fish species were not found landward of slope stations. Possible factors affecting landward distribution, such as currents, vertical migration patterns and predation, are discussed.

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ACC 1084; TYPE; YEAR 1970
HORN, M.H.;
SYSTEMATICS AND IOLOGY OF THE STROMATEID FISHES OF THE GENUS PEPRILUS.

BIBL BULL. MUS. COMP. ZOOL. 140(5):165-261.

KEYWORD: biology, fish, life history, taxonomy, zoology

ABSTRACT: Not available.

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ACC 4214; TYPE P; YEAR 1977
HOROWITZ, A.; PRESLEY, B.J.;
TRACE METAL CONCENTRATIONS AND PARTITIONING IN ZOOPLANKTON, NEUSTON, ENTHOS FROM THE SOUTH TEXAS OUTER CONTINENTAL SHELF

BIBL ARCH. ENVIRON. CONTAM. TOXICOL. 5(2):241-255.

KEYWORD: trace metal, neuston, zooplankton, shrimp, fish, distribution, chemical, biological, heavy metal, pollutant

ABSTRACT: Biological samples of zooplankton, surface plankton, sargassum, and benthos obtained at 12 stations on the south Texas outer continental shelf were analyzed for copper, zinc, cadmium, lead, chromium, nickel, iron, and manganese to establish both baseline metal concentrations and partitioning among parts and organs of the individual organisms. Benthos samples were primarily squid, shrimp. and fish. Chemical analyses showed shrimp exoskeletons and the skin of squid and fish generally contained higher metal levels than the flesh, probably due to adsorption from seawater and/or an internal detoxification procedure employed by the organism. Squid 'pens' contained higher levels of copper, cadmium, zinc, lead, and iron than skin or flesh, also probably the result of internal detoxification or as a means of storing necessary metabolites in the case of copper and zinc. Adsorption is not a factor as the pen is not directly exposed to seawater. A north-south directional increase in lead concentrations in organisms and an increase in cadmium from nearshore to offshore agrees with spatial distribution patterns in sediments. Statistical analyses of chemical and biological data indicates that relatively small changes in biological makeup of the sample can markedly affect concentrations of lead, cadmium, nickel, and zinc. Fish and shrimp contained some of the lowest metal levels of biota examined. All lead can be accounted for by copepods, ostracods, and larvacea.

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ACC 505; TYPE; YEAR 1972
HOSKIN, L.M.;
OYSTER REEF SEDIMENTATION, ILOXI AY AREA, MISSISSIPPI.

BIBL WATER RESOURCES RESEARCH INSTITUTE, MISSISSIPPI STATE UNIVERSITY. STARKVILLE, MS. 39 PP.

KEYWORD: Biloxi Bay, Gulf of Mexico, Mississippi Sound, Mississippi, geology, oysters, reefs, sedimentation, sediments

ABSTRACT: Not available.

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ACC 2103; TYPE P; YEAR 1981
HOSS, D.E.; HETTLER, W.F.;
GULF OF MEXICO FISHERIES: CURRENT STATE OF KNOWLEDGE AND SUGGESTED CONTAMINANTBRELATEDRESEARCH

IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO. KEY BISCAYNE, FLORIDA, 30 SEPT.-5 OCT. 1979. D.K. ATWOOD (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LAB., MIAMI, FL. VOL IIB:161-185.

KEYWORD: fishery, pollution

ABSTRACT: This summary paper presents a selective discursive review of the Gulf of Mexico fishery resources and a discussion of the research programs that the authors believe offer a possible assessment of the environmental health of the area. Sections on the habitat, recent and ongoing fishery research, and research needs are provided.

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ACC 716; TYPE; YEAR 1975
HOTTMAN, W.E.;
AREAL DISTRI UTION OF CLAY MINERALS AND THEIR RELATIONSHIP TO PHYSICAL PROPERTIES, GULF OF MEXICO.

BIBL MASTER'S THESIS. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 53 PP.

KEYWORD: kaolinite, montmorillonite, sediment texture, clay mineralogy, sediment, distribution

ABSTRACT: Thirty-seven piston cores were collected from the Gulf of Mexico during cruises by the R/V Alaminos between 1965 and 1970. Samples were analyzed for clay minerals, grain size, water content, void ratio, shear strength, carbonate content and specific gravity. Data include maps which show percentages of each clay mineral in each sample location.

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ACC 4058; TYPE P; YEAR 1975
HOUDE, E.D.;
A UNDANCE AND POTENTIAL YIELD FOR FISHERIES DEVELOPMENT OF SOME SARDINEB LIKE FISHES IN THE EASTERN GULF OF MEXICO.

BIBL PROC. GULF CARIB. FISH. INST. 28TH ANN. SES.

KEYWORD: biology, commercial fishery, ichthyoplankton, biomass, recruitment, pelagic fish, water column

ABSTRACT: A survey of eggs and larvae of sardine-like fishes was carried out in the Eastern Gulf of Mexico from 1971 to 1974 to determine adult biomass of these fishes and to evaluate their potential yield to commercial fisheries. The aggregate spawning biomass of sardine-like fishes was approximately 1.1 million metric tons during that period. Thread herring (Opisthonema oglinum) biomass averaged 241,000 tons; scaled sardine (Harengula jaguana) biomass averaged 184,000 metric tons; and round herring (Etrumeus teres)

mean biomass was 379,000 metric tons. No estimates were obtained for Spanish sardine (Sardinella spp.) biomass, but it may be about 250,000 metric tons. The menhaden (Brevoortia spp.) resource apparently is small in the Eastern Gulf and its biomass was not estimated. The potential, maximum sustainable harvest of all sardine-like species on an annual basis likely does not exceed 525,000 metric tons from the Eastern Gulf of Mexico.

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ACC 4059; TYPE P; YEAR 1982
HOUDE, E.D.;
KINDS, DISTRI UTIONS AND A UNDANCES OF SEA ASS LARVAE (PISCES: SERRANIDAE) FROM THE EASTERN GULF OF MEXICO.

BIBL BULL. MAR. SCI. 32(2):511-522.

KEYWORD: biology, ichthypolankton, fish, grouper, distribution, zooplankton, spawning area, water column, abundance

ABSTRACT: Occurrences, distributions and abundances of serranid larvae from the eastern Gulf of Mexico were described based on 505-um mesh bongo net collections made during 13 cruises in 1971-73. A diverse assemblage of sarranid larvae was collected, totalling 5,350 individuals. Four subfamilies were represented and 11 genera and 14 species (or types) were identified. The most abundant serranid larva was Diplectrum formosum, followed by Hemanthias vivanus. Larvae of D. formosum were the fifth most common species of all fish larvae that were collected on the cruises and accounted for 55.5% of ths serranids. Other common serranid larvae included Serraniculus pumilio, Centropristis striata, Pronotogrammus aureorubesn, Anthias Type I, epinepheline larvae and Rypticus spp. Larvae of serranids were collected over the entire shelf area in the eastern Gulf during all seasons, but species that occurred differed by area, season and depth zone. Apparent differences in annual mean abundances were observed for some species. Relationships between occurrences and surface temperature and salinity ware examined. Spawning seasons were inferred from the larval occurrence data.

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ACC 4060; TYPE P; YEAR 1977
HOUDE. E.D.;
A UNDANCE AND POTENTIAL YIELD OF THE SCALED SARDINE, HARENGULA JAGUANA, AND ASPECTS OF ITS EARLY LIFE HISTORY IN THE EASTERN GULF OF MEXICO.

BIBL FISH. BULL. 75(3):613-628.

KEYWORD: biology, ichthyoplankton, commercial fishery, distribution, spawning area, recreational fishery, recruitment, fish, zooplankton, seasonality, water column

ABSTRACT: Eggs and larvae of the scaled sardine, Harengula jaguana, were collected in 1971-74 from the eastern Gulf of Mexico to determine spawning seasons, spawning areas, adult biomass, and fisheries potential. Aspects of the early life history of the species also were studied. Spawning occurred from January to September, but was most intense from May to August, when surface temperatures ranged from 20.8 degrees to 30.7 degrees Celsius and surface salinities were 29.9 to 36.9 o/oo. All spawning occurred between the coast and the 30-m depth contour, mostly within 50 km of the coast. The biomass of scaled sardines, based on annual spawning estimates, apparently increased from 1971 to 1973, the mean estimate for the 3 yr being 184,527 metric tons. Potential yield estimates, based on the 3-yr mean biomass, ranged from 46,000 to 92,000 metric tons. Larval abundance and mortality rates were estimated from 1973 data. More than 99.9% mortality occurred between time of spawning and attainment of 15.5 mm standard length at 20 days of age. Comparisons were made of scaled sardine distribution, abundance, potential yield, and larval mortality with those of the other eastern Gulf clupeids.

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ACC 4061; TYPE P; YEAR 1976
HOUDE, E.D.; CHITTY, N.;
SEASONAL A UNDANCE AND DISTRI UTION OF ZOOPLANKTON, FISH EGGS, AND FISH LARVAE IN THE EASTERN GULF OF MEXICO, 1972B74.

BIBL NOAA TECHNICAL REPORT. NMFS SSRF-701. 18 P.

KEYWORD: zooplankton, ichthypolankton, biology, distribution, seasonality, water column

ABSTRACT: Zooplankton volumes and abundance of fish eggs and fish larvae were determined for stations of 12 cruises to the western Florida continental shelf. Contour charts of zooplankton volumes and of ichthyoplankton abundance are presented. A marked seasonality was observed for zooplankton and ichthyoplankton, highest zooplankton volumes and ichthyoplankton abundance occurring during May through September. Zooplankton volumes were highest and spawning by fishes most intense in the northern half of the study area (north of lat. 27 degrees 15'N). Fish larvae abundance (number under 10 sq. m of sea surface) was highest at stations deeper than 50 m. Simple correlations among biological variables showed fish egg abundance-zooplankton volumes and fish egg abundance-fish larvae abundance to be positively correlated on most cruises. No clear relationships were observed between abundance or concentration of biological variables and temperature or salinity.

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ACC 4062; TYPE P; YEAR 1979
HOUDE, E.D.; LEAK, J.C.; DOWD, C.E.;
BERKELEY, S A.; RICHARDS, W.J.;
ICHTHYOPLANKTON ABUNDANCE AND DIVERSITY IN THE EASTERN GULF OF MEXICO.

BIBL A REPORT FOR THE U.S. DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT, GULF OF MEXICO OCS OFFICE, NEW ORLEANS, LA. CONTRACT #AA550-CT7-28.

KEYWORD: biology, ichthypolankton, commercial fishery, distribution, spawning area, recreational fishery, recruitment, fish, zooplankton, seasonality, water column

ABSTRACT: An ichthyoplankton survey, consisting of 17 cruises to the eastern Gulf of Mexico, was carried out from 1971-1974. Objectives of the survey were to determine the kinds and abundances of larval fishes, their distribution and diversity, and the relationship of their occurrence to environmental factors. From the egg and larval distributions, spawning areas and seasons were determined, and in some cases biomasses of adults were estimated. The surveys succeeded in providing important baseline data on the early life stages of fishes in the Gulf of Mexico. A total of 143,034 fish larvae were collected and included 91 families and 173 identified species. Most identified larvae were in the 10 most commonly collected families. The families Clupeidae and Gobiidae dominated larval catches at < 100 m deep stations while the Myctophidae were dominant at > 100 m deep stations. Annual abundances and mortality rates were estimated for the most common species. Adult biomasses of several species were estimated; pelagic fishes apparently have higher biomasses than demersal fishes in the eastern Gulf. There were no significant differences in ichthyoplankton diversity among years, seasons or between north and south sectors of the survey area; but diversity was significantly higher in offshore than in onshore zones. Effects of environmental factors on ichthyoplankton abundance were not clearly demonstrated but the modes and ranges of surface temperature, surface salinities, and station depth where common species occurred were clearly defined.

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ACC 40; TYPE; YEAR 1976
HSU, S.A.;
ATMOSPHERIC DISPERSION CHARACTERISTICS IN THE LOUISIANA COASTAL ZONE.

BIBL CENTER FOR WETLAND RESOURCES, LOUISIANA STATE UNIVERSITY, BATON ROUGE, LA. LSU-T-76-06-011(T).

KEYWORD: coastal zone, pollution, atmospheric circulation, wind

ABSTRACT: Atmospheric dispersion characteristics in the coastal zone are unique in that physical processes of air, sea, and land combine at the shoreline to create motions on many scales which differ in important respects from processes over land or over water. Some of these differences in coastal Louisiana are reviewed. Synoptic-scale characteristics indicate that the coastal zone is superior to areas farther inland for dispersing pollutants. However, mesoscale and microscale studies reveal that diurnal circulation of land-breeze and sea-breeze systems and the development of an internal boundary layer because of aerodynamic roughness changes across the shoreline may actually increase pollution concentration in the nearshore region. Specific studies on these scales of atmospheric motion in relation to the optimum siting for industrial plants are outlined and recommended.

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ACC 84; TYPE; YEAR 1977
HSU, S.A.;
ATMOSPHERIC DISPERSION CHARACTERISTICS IN THE LOUISIANA COASTAL ZONE.

BIBL CENTER FOR WETLAND RESOURCES, LOUISIANA STATE UNIVERSITY, BATON ROUGE, LA. TECHNICAL REPORT NO. 229. 29 PP.

KEYWORD: coastal zone, land-sea breezes, atmospheric circulation, meteorology, physical process

ABSTRACT: Atmospheric dispersion characteristics in the coastal zone are unique in that physical processes of air, sea, and land combine at the shoreline to create motions on many scales which differ in important respects from processes over land or over water. Some of these differences in coastal Louisiana are reviewed. Synoptic-scale characteristics indicate that the coastal zone is superior to areas farther inland for dispersing pollutants. However, mesoscale and microscale studies reveal that diurnal circulation of land-breeze and sea-breeze systems and the development of an internal boundary layer because of aerodynamic roughness changes across the shoreline may actually increase pollution concentration in the nearshore region. Specific studies on these scales of atmospheric motion in relation to the optimum siting for industrial plants are outlined and recommended.

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ACC 4314; TYPE P; YEAR 1982
HSU, S.A.; PRIOR, D.B.; WISEMAN, W.J., JR.;
ROBERTS, H.H.; GILBERT, R.;
COLLECTION OF REPRINTS.

BIBL TECH. REP. LA. STATE UNIV. COAST. STUD. INST. 382:2.

KEYWORD: temperature, stress, physical, sediment

ABSTRACT: The collection covers some mesoscale boundary-layer processes over coastal waters; submarine slope processes on a Fan Delta, Howe Sound, British Columbia; relationship between monthly frontal

overrunning and offshore-onshore temperature differences across the central gulf coast; cold-water stress in Florida Bay and Northern Bahamas--A product of winter cold-air outbreaks; infrared transmittance of marine atmosphere; physical processes and sedimentation on a broad, shallow bank.

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ACC 4063; TYPE P; YEAR 1982
HSUEH, Y.; MARMARINO, G.O.; VANSANT, L.L.;
NUMERICAL MODEL STUDIES OF THE WINTERB STORM RESPONSE OF THE WEST FLORIDA SHELF.

BIBL J. PHYS. OCEANOGR. 12:1037-1050.

KEYWORD: circulation, physical, oceanography, numerical model, meteorology, eddy formation

ABSTRACT: The wintertime, wind-driven ocean circulation on the West Florida continental Shelf is studied within the framework of a linearized storm-surge model. The model bathymetry incorporates a realistic shelf, extending from New Orleans to the southern tip of Florida, and a deep ocean region. Th boundary condition at the coast is that there is no normal flow. At the open boundaries, located off the shelf in deep water, the adjusted sea level is fixed at zero. It is found that 1) a coastally trapped response is achieved within one local inertial period following the imposition of the wind; 2) the curved coast forces a mass exchange between the coastal water and the deep ocean; 3) this exchange leads to the generation of a series of mesoscale eddies along the shelf edge; and 4) these eddies give rise to long-period, shelf-wide oscillations that persist beyond the local spin-up time. A hindcast of tha wind-driven flow on the West Florida Shelf for a particular period (11-25 March 1978) that contains the passage of a distinct cold front produces coastal sea-level and current fluctuations that are in reasonable agreement with observations.

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ACC 2104; TYPE P; YEAR 1977
HUANG, W.H.;
CLAY MINERAL STUDIES OF SURFACE SEDIMENTS FROM THE MAFLA OCS ASELINE MONITORING SITES.

BIBL TECHNICAL REPORT, SUBMITTED TO THE BUREAU OF LAND MANAGEMENT, WASHINGTON, DC. (MAFLA-OCS PROGRAM).

KEYWORD: sediment, clay mineralogy, MAFLA, kaolinite

ABSTRACT: Sediments along six transects of the West Florida Shelf were sampled and analyzed. Clay mineral analysis revealed that kaolinite is the most abundant, followed by chlorite-vermiculite mixed layer which is unique in this area. The distribution pattern of clay minerals is different from that on the Mississippi-Alabama Shelf where smectite predominates and virtually no vermiculite-chlorite mixed layer occurs.

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ACC 2326; TYPE P; YEAR 1967
HUANG, T.C.; GOODELL, H.G.;
SEDIMENTS OF CHARLOTTE HAR OR, SOUTHWESTERN FLORIDA.

BIBL J. SEDIMENT. PETROL. 37(2):449-474.

KEYWORD: Charlotte, sediment, carbonate, grain size, circulation

ABSTRACT: The sediments of Charlotte Harbor were determined to be composed of essentially two components: terrigeneous quartz sand and biogenic carbonate detritals. The mean grain size as well as the percentage of the carbonate detritals was determined to increase seaward. The coarse fractions of the sediments were shown to accumulate at the harbor mouth and in the channels, while the finer aggregates became concentrated in the harbor head and lagoons. Two major tidal circulations were shown to shift the sediments. Multivariate nonlinear regression was used to relate the sediment characteristics to their provenance, transportation and depositional environments.

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ACC 2421; TYPE P; YEAR 1977
HUDSON, J.H.;
LONGBTERM IOEROSION RATES ON A FLORIDA REEF: A NEW METHOD.

BIBL PROCEEDING THIRD INTERNATIONAL CORAL REEF SYMPOSIUM, UNIVERSITY OF MIAMI. MIAMI, FL.

KEYWORD: Monroe, reef, growth, sponge, coral, erosion

ABSTRACT: Paired cores from dead Montastrea annularis coral heads were analyzed by x-radiographs and estimation of annual growth increments to determine bioerosion rates. Between 1974 and 1976 the average annual rate of coral removal by boring organisms was 0.67 cm, a 350% increase over the period 1970-1974. The principal boring organisms responsible for primary erosion of the coral heads include 6 sponges: Siphonodictyoa coralliphagum, S. sp., Cliona caribbaea, C. vermiforea, C. vastifica, and C. sp. Secondary erosion is due to the spotlight parrotfish, Sparisoma viride, other scarids, and the long-spined sea urchin, Diadema antillarum. A 1 meter high coral head could be completely eroded in 150 years or less, according to extrapolation of measured bioerosion rates.

ACC 2217; TYPE P; YEAR 1971
HUDSON, J.H.;
THE CALICO SCALLOP: FISHERY AND RESEARCH DEVELOPMENTS.

BIBL. AM. MALACOL. UNION, INC. BUL., SYMP. COMMER. MAR. MOLLUSCS OF THE U.S. ANNU. REPT. 1970, P. 27-28.

KEYWORD: calico scallop, fishery, spawning, development

ABSTRACT: Geographic areas and physical factors such as temperature and depth limiting the abundance of calico scallops were presented. Methods for commercial harvesting using an 8 ft tumbler dredge and factors influencing commercial production were discussed. The use of Remote Underwater Fishery Assessment System (RUFAS) and a towed sled equipped for continuous motion picture or video tapes of scallop concentrations was also discussed. Biological research on the calico scallop in such areas as spawning, larval development, & dispersal, spat set, age, growth, movement, mortality. and environmental factors affecting scallop beds were also briefly discussed.

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ACC 2422; TYPE P; YEAR 1981
HUDSON, J.H.;
GROWTH RATES IN MONTASTRAEA ANNULARIS: A RECORD OF ENVIRONMENTAL CHANGE IN KEY LARGO CORAL REEF MARINE SANCTUARY, FLORIDA.

BIBL. BULL. MAR. SCI. 31(2):444-459.

KEYWORD: Monroe, coral, reef, growth, temperature, turbidity, depth, stress

ABSTRACT: One hundred forty-four massive heads of Montastraea annularis from inshore, midshore, and offshore reef areas within the Key Largo Coral Reef Marine Sanctuary, Florida, were sampled by coring to determine annual growth rates. Water temperature, turbidity, and depth appear to be the primary environmental factors regulating growth and survival of M. annularis. Maximum growth rates (average 11.2 mm/yr) of M. annularis occurred at midshore reef areas where stress banding and skeletal damage due to bioerosion were minimal. M. annularis from the offshore fore-reef areas showed the slowest growth rates (6.3 mm/yr) while those from inshore reef areas had a slightly higher rate (8.2 mm/yr). M. annularis from both inshore and offshore reef areas exhibited long histories of environmental stress indicated by stress banding and healed-over "die-off" voids excavated by boring organisms. A decrease in coral growth from 1953 to 1968 at some midshore and inshore reefs coincided with increased dredge and fill operations in the Florida Keys area. A recent slight increase in growth (1973-1978) coincided with a ban on these operations.

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ACC 2423; TYPE P; YEAR 1980
HUDSON, J.H.; ROBBIN, D.M.;
EFFECTS OF DRILLING MUD ON THE GROWTH RATE OF THE REEFB UILDINGCORAL, MONTASTRAEA ANNULARIS.

BIBL. PROC. RESEARCH ON ENVIRON. FATE AND EFFECTS OF DRILLING FLUIDS AND CUTTINGS, VOL. II, LAKE BUENA VISTA, FLORIDA.

KEYWORD: Monroe, drilling mud, reef, coral, growth, barium

ABSTRACT: To study the effects of drilling mud on the growth of Montastraea annularis, eight coral heads were heavily dosed with drilling mud and left with 10 untreated corals on Carysfort Reef, Key Largo, for 6 months to recover and grow. After collection and analysis by x-radiography, growth rates were found to be reduced in treated corals and barium levels in skeletal areas as high as 100 times background concentration. In a second study at East Flower Garden Bank, growth rates of M. annularis were found to have declined sharply after 1957, but barium and chromium levels were at or below background concentrations, despite nearby drilling operations in 1974 and 1977.

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ACC 2424; TYPE P; YEAR 1970
HUDSON, J.H.; ALLEN, D.M.; COSTELLO, T.J.;
THE FLORA AND FAUNA OF A BASIN IN CENTRAL FLORIDA BAY.

BIBL. U.S. FISH WILDL. SERV. SPEC. SCI. REPT. NO. 604. 14 P.

KEYWORD: Monroe, seagrass, water mass, salinity, temperature, pink shrimp

ABSTRACT: Monthly samples collected from a basin of central Florida Bay yielded 196 species of plants and animals between April 1965 and January 1968. Approximately 73% of the organisms were benthic and associated with seagrass beds of Thalassia testudinum. A species list is given. The effect of different water masses on the general distribution of fauna and flora in the basin and bay is discussed.

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ACC 2425; TYPE P; YEAR 1976
HUDSON, J.H.; SHINN, E.A.; HALLEY, R.B.; LIDZ, B.H.;
AUTOPSY OF A DEAD CORAL REEF.

BIBL. AM. ASSOC. PET. GEOL. 60(4):683.

KEYWORD: Monroe, coral, reef, mortality, growth, stress, temperature

ABSTRACT: During the winter of 1969.70 Hen and Chickens patch reef in the Florida Keys was determined to have suffered 80 to 90% mortality. It was found through x-radiographed slabs, measurement of annual growth rate and observation of abnormalities dating from 1926 to the present that "stress bands" formed during winter months. The stress bands were found to correspond to unusually cold winters. It was concluded

that the death of Hen and Chickens patch reef was caused by uncommonly cold water.

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ACC 4169; TYPE P; YEAR 1982
HUDSON, J.H.; SHINN, E.A.; ROBBIN, D.M.;
EFFECTS OF OFFSHORE OIL DRILLING ON PHILIPPINE REEF CORALS.

BIBL BULL. MAR. SCI. 32(4):890-908.

KEYWORD: offshore drilling, coral, growth, reef, physiology, pathology

ABSTRACT: An offshore drilling site in an area of extensive live coral bottom off northwest Palawan Island. Philippines, was examined 15 mo. after well completion to determine the effects of drilling on coral growth and survival. Core samples of 38 Porites lutea head corals were collected from around the drilling site and from a control reef and their histories compared using x-radiography to reveal changes in annual growth before, during, and after drilling. Analysis of P. lutea growth rates showed that when compared to their predrilling growth averages and to growth of corals from a nearby control reef, little suspension of head coral growth could be attributed to drilling. Diver observation, together with analysis of sampling transect photomosaics, revealed approximately 70-90% reduction in foloise, branching and plate-like corals in an Fe-stained area that extended out from the wellheads in a 115 times 85 m ellipse. Coral cover beyond this area was comparable to that of the control reef.

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ACC 4315; TYPE P; YEAR 1981
HUDSON, J.H.;
GROWTH RATES IN MONTASTRAEA ANNULARIS: A RECORD OF ENVIRONMENTAL CHANGE IN KEY LARGO CORAL REEF MARINE SANCTUARY, FLORIDA.

BIBL BULL. MAR. SCI. 31(2):444-459.

KEYWORD: coral, reef, growth, depth, turbidity, temperature, stress

ABSTRACT: Annual growth rates of M. annularis over the last 50+ years were determined for inshore, midshore, and offshore reef areas within the Kay Largo Coral Reef Marine Sanctuary, Florida. Key elements affecting growth and survival of M. annularis in the sanctuary appear to be water depth, turbidity, and temperature. Abnormal density layers (stress bands) are common and reveal a record of environmental stress. The recent decline in coral growth (1953 to 1968) at some midshore and inshore reefs coincides with increased dredge and fill operations in the Florida Keys area. A slight overall resurgence in coral growth on these same reefs (1973 to present) coincides with a ban on these operations.

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ACC 4064; TYPE P; YEAR 1979
HUFF, J.A.; COBB, S.P.;
PENAEOID AND SERGESTOID SHRIMPS (CRUSTACEA: DECAPODA). MEMOIRS OF THE HOURGLASS CRUISES. VOL. V, PART IV.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 102 P

KEYWORD: crustacea, biology, , distribution, systematic, zoogeography, pink shrimp, hourglass, rock shrimp, benthic, ecology, invertebrate, epifauna, continental shelf

ABSTRACT: Three families of Penaeoidea and 1 genus of Sergestidae were captured during 28 months of systematic sampling n Florida's west central shelf. Penaeoids collected in order of decreasing abundance were Sicyonia brevirostris, Solenocera atlantidis, Metapenaeopsis goodei, Penaeus duorarum, Trachypenaeus constrictus, Mesopenaeus tropicalis, Sicyonia typica, Sicyonia laevigata, Sicyonia stimpsoni, and Sicyonia burkenroadi. These species have demonstrable affinities for firm or coarse substrates; penaeoids with soft or fine substrate affinities were not captured in Hourglass sampling. Sergestidae was represented by the planktonic shrimp, Lucifer faxoni. Reproductive data revealed a trend toward protracted or year-round spawning and recruitment. Diet analysis revealed eight penaeoids to be generalized benthic carnivores. Nocturnal feeding was indicated for seven; S. laevigata had a diel feeding pattern. A key for 26 species of Penaeoidea known from the Gulf of Mexico and Atlantic waters of Florida's east coast (less than 200 m deep) includes Trachypenaeopsis mobilispinis, not previously reported from waters contiguous to Florida.

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ACC 2357; TYPE P; YEAR 1969
HUGHES, D.A.;
RESPONSES TO SALINITY CHANGE AS THE TIDAL TRANSPORT MECHANISM OF PINK SHRIMP, PENAEUS DUORARUM.

BIBL BIOL. BULL. MAR. BIOL. LABS., WOODS HOLE. 136(1):43-53.

KEYWORD: Collier, salinity, transport, pink shrimp, tide, light, currents

ABSTRACT: Shrimp taken from Buttonwood estuary, Florida were studied to determine the effect of salinity on postlarvae and juveniles. In the laboratory salinity changes were imposed on both juveniles and postlarvae. With a decreasing salinity. the rheotactic response of juveniles was reversed, and postlarvae sank lower in the water column. Postlarvae demonstrated an ability to perceive and avoid areas of lower war salinity.

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ACC 4322; TYPE P; YEAR 1979
HUGHES, P.;
GREAT GALVESTON HURRICANE.

BIBL WEATHERWISE, WASH., D.C., 32(4):148-156.

KEYWORD: hurricane, hurricane damage

ABSTRACT: The 1900 Galveston hurricane was a far greater disaster than the Chicago fire of 1871, which killed 250 people; the 1906 San Francisco earthquake, which killed 480; or the Johnstown flood in 1889, which claimed 2200 lives. In the City of Galveston alone, the hurricane killed at least 6000 people and left 5000 injured. At least 2000 more died elsewhere. The hurricane was born about 4000 mi away from the city, west of the Cape Verde Islands on Aug. 17. On Sept. 5, when the storm struck the Florida Keys, it became a full-blown hurricane. Winds were estimated to be 120 m.p.h. or more. Twelve hurricanes have struck the U.S. since the one that struck Galveston in 1900; one was almost equal in severity and two were more intense--the hurricane that struck the Florida Keys in 1935 and hurricane "Camille," which hit the Gulf coast in 1969.

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ACC 24; TYPE; YEAR 1978
HUH, O.K.;
REMOTE SENSING OF THE OCEANS FROM SPACE BIACHIEVEMENTS, PRO LEMS AND PROGNOSIS.

BIBL OFFICE OF NAVAL RESEARCH, ASTRONAUTICS AND AERONAUTICS. TECHNICAL REPORT NO. 252.

KEYWORD: coastal water, remote sensing, satellite, temperature, oceanography

ABSTRACT: Not available.

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ACC 1035; TYPE; YEAR 1978
HUH, O.K.; ROUSE L.J.; SMITH, G.W.;
SURFACE TEMPERATURE AND TEMPERATURE GRADIENT FEATURES OF THE U.S. GULF COAST WATERS.

IN: PROCEEDING 11TH INTERNATIONAL SYMPOSIUM ON REMOTE SENSING OF THE ENVIRONMENT, APRIL 25-29, 1977. 1609-1618 P.

BIBL UNIVERSITY OF MICHIGAN, ANN ARBOR, MI.

KEYWORD: coastal water, continental shelf, infrared imagery, remote sensing, satellite, physical oceanography, seasonal variation, temperature

ABSTRACT: Satellite thermal infrared data on the Gulf of Mexico show that a seasonal cycle exists in the horizontal surface temperature structure. In the fall, the surface temperatures of both coastal and deep waters are nearly uniform. With the onset of winter, atmospheric cold fronts, which are accompanied by dry, low-temperature air and strong winds, draw heat from the sea. Penetrative convection and wind-driven mixing lower temperatures, first in the shallowest waters and then, as the winter season progresses, in deeper and deeper portions of the Gulf. A band of cooler water forming on the inner shelf expands, until a thermal front develops seaward along the shelf bred between the cold shelf waters and the warmer deep waters of the Gulf. Digital analysis of the satellite data has been carried out in an interactive mode using a minicomputer and software developed at the Coastal Studies Institute. A time series of temperature profiles illustrates the temporal and spatial changes in the sea-surface temperature field.

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ACC 1036; TYPE; YEAR 1981
HUH, O.K.; WISEMAN, W.J.; ROUSE, L.J.;
INTRUSION OF LOOP CURRENT WATERS ONTO THE WEST FLORIDA CONTINENTAL SHELF.

BIBL J. GEOPHY. RES. 86:4186-4192.

KEYWORD: loop current, continental shelf, infrared imagery, remote sensing, satellite, physical oceanography, seasonal variation, temperature

ABSTRACT: An intrusion of loop current water up DeSoto Canyon and onto the West Florida continental shelf to within 8 km of the shore occurred in February 1977. Both aircraft and satellite data collected in the area for another purpose were used to estimate the space and time scales of the intrusion and the ultimate fate of the intruded waters. The duration of the event was 18 days. Oceanic waters advanced across the shelf at speeds of 20 cm s(-1). At maximum intrusion, 6650 km(2) of shelf were affected. Approximately half the intruded water receded off the shelf, and half appears to have been modified in situ.

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ACC 4265; TYPE P; YEAR 1978
HUH, O.K.; WISEMAN, W.J., JR.; ROUSE, L.J., JR.;
WINTER CYCLE OF SEA SURFACE THERMAL PATTERNS, NORTHEASTERN GULF OF MEXICO.

PRESENTED AT CHAPMAN CONFERENCE ON OCEANIC FRONTS, NEW ORLEANS, LA (USA) OCTOBER 1977.

BIBL J. GEOPHYS. RES. 83(C9):4523-5531.

KEYWORD: temperature, loop current, seasonal, remote sensing, satellite, infrared imagery

ABSTRACT: During the winter of 1976-1977 a time series of NOAA satellite data was obtained which documented the seasonal cycle of sea surface temperature. Data were obtained as both marine-enhanced images and computer compatible tapes. Fall cooling initially affected only the lakes and estuaries. A band of cold inner shelf waters then formed along the coast. This expanded seaward to the shelf break as the winter season progressed. At the extreme of winter cooling, two major thermal fronts remained: one near the shelf edge, separating the shelf from deep gulf surface waters, and the other the cyclonic boundary of the Loop Current. The onset of spring warming was indicated by an increase in surface temperatures in the shallow inshore areas. The seasonal cycle was completed with the formation of nearly is thermal surface waters throughout the region, a condition characteristic of the summer season.

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ACC 2105; TYPE P; YEAR 1958
HULINGS, N.C.;
AN ECOLOGICAL STUDY OF THE RECENT OSTRACODS OF THE GULF COAST OF FLORIDA.

BIBL PH.D. DISSERTATION. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL. 224 P.

KEYWORD: benthic, temperature, salinity, hydrographic, crustacea, currents, turbidity

ABSTRACT: The distribution of ostracods on the Gulf coast of Florida was determined from 165 benthic samples taken from Ochlockonee Bay, Apalachee Bay, and an offshore transect from Panama City to St. Petersburg. A total of 83 species was collected, 47 of which were identified to species. The temperature, salinity, and bottom type conditions of all sampling areas were measured and various biozones were distinguished on the basis of substratum type and species composition. The distribution of living ostracods was related to the measured hydrographic conditions.

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ACC 375; TYPE ; YEAR 1959
HUMM, H.J.; DARNELL, R.M.;
A COLLECTION OF MARINE ALGAE FROM THE CHANDELEUR ISLANDS.

BIBL PUBL. INST. MAR. SCI., UNIV. TEX. 6:265-276.

KEYWORD: algae, benthic flora, biology, ecology, species list, flora, taxonomy

ABSTRACT: Not available.

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ACC 2106; TYPE; YEAR 1973
HUMM, H.J.;
SEAGRASSES.

IN: A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO. J.J JONES, R.E. RING, M.O. RINKEL AND R.E. SMITH (EDS.).

BIBL STATE UNIVERSITY SYSTEM FLORIDA INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL. IIIC-1-IIIC-10.

KEYWORD: seagrass, depth

ABSTRACT: The eastern Gulf of Mexico supports five species of seagrass, representing 4 genera, in abundance. Thalassia testudinum (turtle grass); Holodule wrightii (manatee grass); and Syringodium filiforme (shoal grass) are the most abundant species, occurring in shallow inshore areas, intertidally to depths of 10-20 meters. Two other species, Halophila baillonis and H. engelmannii also occur in shallow waters, but their distribution extends to depths of 70 meters. These seagrasses occupy thousands of squaremiles of the inner continental shelf, providing habitat for many invertebrate and fish populations.

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ACC 2107; TYPE P; YEAR 1973
HUMM, H.J.;
ENTHIC ALGAE OF THE EASTERN GULF OF MEXICO.

IN: A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO. J. JONES, R. RING, M. RINKEL AND R. SMITH (EDS.).

BIBL STATE UNIVERSITY SYSTEM FLORIDA INSTITUTE OF OCEANOGRAPHY. IIIB-1-IIIB-15.

KEYWORD: benthic, algae, biomass, seagrass, abundance

ABSTRACT: The diversity and abundance of benthic algae in the eastern Gulf of Mexico is reviewed. The regional scarcity of rocky substrata is cited in

limiting the abundance of the epibenthic flora. Biomass comparisons are drawn between benthic algae and seagrasses. Commercial uses of the native algae are summarized and the feasibility of harvesting seaweed from the continental shelf is discussed.

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ACC 2426; TYPE P; YEAR 1964
HUMM, H.J.;
EPIPHYTES OF THE SEAGRASS, THALASSIA TESTUDINUM, IN FLORIDA.

BIBL BULL. MAR. SOC. GULF & CARIBB. 14(2):306-372.

KEYWORD: Monroe, seagrass, sediment

ABSTRACT: One hundred and thirteen species of algae were reported occurring as epiphytes on the seagrass Thalassia testudinum, 92 of which were recorded from the south Florida area. Two groups of epiphytes were recognized; perennial species and the seasonal annuals. Among the former are calcareous Corallinaceae which contribute significantly to the sediments of seagrass beds. Among the latter is a group of large plants which may become sufficiently abundant during winter and spring to shade the Thalassia significantly. Each species listed was described and a key to the species known to occur as epiphytes on Thalassia in south Florida was presented.

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ACC 4182; TYPE P; YEAR 1979
HURDEY, S E.;
SOURCES AND CHARACTERISTICS OF LIQUID PROCESS WASTES FROM ARCTIC OFFSHORE HYDROCAR ON EXPLORATION.

BIBL ARCTIC 32(1):3-21.

KEYWORD: pollution, drilling mud, offshore drilling, formation water, production water

ABSTRACT: Increased interest in offshore hydrocarbon exploration in Arctic waters raises concern regarding liquid waste management from drilling operations. The typical sources of process liquid waste from exploratory drilling operations is described and data on the quantity and quality of liquid waste discharges is provided from monitoring at two offshore sites. The chemical and toxicological characteristics of the waste fluids indicate that a potential exists for water pollution in specific circumstances. However, close process control to reduce the quantities of waste fluid generated and judicious selection of drilling mud additives should prevent the occurrence of significant water pollution problems from waste fluid disposal at exploratory Arctic offshore drilling operations.

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ACC 4065; TYPE P; YEAR 1980
HURLBURT, H.E.; THOMPSON, J.D.;
A NUMERICAL STUDY OF LOOP CURRENT INTRUSIONS AND EDDY SHEDDING.

BIBL J. PHYS. OCEANOGR. 10(10):1611-1651.

KEYWORD: circulation, currents, eddy formation, loop current, numerical model, physical, oceanography, intrusion

ABSTRACT The dynamics of the eddy shedding by the Loop Current in the Gulf of Mexico have been investigated using three nonlinear numerical models: two-layer, barotropic and reduced gravity. The barotropic and reduced gravity models demonstrate the individual behavior of the external and internal modes, and provide insight into how they interact in the two-layer model. Because of the economy of the semi-implicit free surface models, it was possible to perform over 100 experiments to investigate the stability properties of the Loop Current. Typically, the models were integrated 3.5 years to statistical equilibrium on a 1600 km x 900 km rectangular domain with a resolution of 20 km x 18.75 km. Prescribed inflow through the model Yucatan Channel was compensated by outflow through the Florida Straits.

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ACC 4066; TYPE P; YEAR 1973
ICHIYE, T ; KUO, H.; CARNES, M.R.;
ASSESSMENT OF CURRENTS AND HYDROGRAPHY OF THE EASTERN GULF OF MEXICO.

BIBL CONTRIBUTION NO. 106, DEPARTMENT OF OCEANOGRAPHY, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX.

KEYWORD: physical, oceanography, hydrography, circulation, loop current, seasonality, meteorology, currents

ABSTRACT: The main purpose of the study was to review existing information on currents and hydrography of the eastern Gulf and to present the results in a manner useful to those interested either in basic sciences or in their applications to this area. Sources of information were obtained from publications including scientific journals and technical reports by governmental agencies, academic institutions and industrial laboratories as well as from unpublished materials including data files, data cards, charts and tables. Although no original research was intended initially, it developed that various new analyses of existing data became necessary in order to present the results of study in useful forms. For instance, the surface currents and transports for each month had to be computed by use of the surface wind stresses, and charts for distributions of water properties were prepared from raw hydrographic data. In the near shore area, temperature-salinity relationships were prepared for different estuaries from scattered sources. Tidal flushing of Tampa Bay and Charlotte Harbor was

calculated based on new sets of data. Circulation and sea level changes in a rectangular ocean by a moving storm were numerically evaluated and applied to the Gulf of Mexico. Ths sea level changes along the Gulf coast due to hurricanes were processed and analyzed by use of data cards and computer print-outs provided by Mr. Douglas Martin of NOAA/NOS. Further, an annotated bibliography was prepared by checking each reference available at our working collection and main library.

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ACC 2020; TYPE P; YEAR 1957
IDYLL, C.P.;
THE COMMERCIAL SHRIMP INDUSTRY OF FLORIDA.

BIBL FLORIDA BOARD OF CONSERVATION MARINE LABORATORY EDUCATIONAL SERIAL NUMBER 6. 30 P.

KEYWORD: shrimp, life history, fishery, development, distribution, pink shrimp, brown shrimp, socioeconomics, shrimp fishery

ABSTRACT: This review of the commercial shrimp industry of Florida examines the life history of penaeid shrimp, the shrimp industry, and regulations concerning the fishery. Three commercially important shrimp species, Penaeus duorarum, P. setiferus, and P. aztecus are described and their individual importance to the fishery is assessed. The spawning and development of P. setiferus, which is typical of other penaeids, are summarized. The distribution of shrimp, fishing gear and methods, economic value of the shrimp industry, and aspects of handling, shipping, and processing shrimp are discussed. Present fishery regulations are presented and the necessity of analyzing population data before making future management decisions is cited.

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ACC 2427; TYPE P; YEAR 1950
IDYLL, C.P.;
A NEW FISHERY FOR GROOVED SHRIMP IN SOUTHERN FLORIDA.

BIBL COMM. FISH. REV. 12(3).

KEYWORD: Monroe, shrimp, fishery, shrimp fishery

ABSTRACT: A news shrimp fishery in the Key West to Dry Tortugas (Florida) region was described. The location and extent of the new grounds and the type of bottom was determined, as was the species and size of the shrimp being caught. The volume of the landings and the number of boats fishing were given.

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ACC 1085; TYPE; YEAR 1965
INAMOTO, T.;
SUMMARY OF TUNA O SERVATIONS IN THE GULF OF MEXICO ON CRUISES OF THE EXPLORATORY FISHING VESSEL OREGON, 1950B 1963.

BIBL COMM. FISH. REV. 27(1):7-4

KEYWORD: biology, commercial fishery, fish, fishery, zoology

ABSTRACT: Not available.

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ACC 2021; TYPE P; YEAR 1963
INGLE, R.M.; ELDRED, B.; SIM, H.W.; ELDRED, E A.;
ON THE POSSI LE CARI EAN ORIGIN OF FLORIDA'S SPINY LO STER POPULATIONS.

BIBL FLORIDA STATE BOARD CONSERVATION MARINE LABORATORY, TECHNICAL SERVICES NO. 40. 12 P.

KEYWORD: spiny lobster, currents, larvae, distribution, crustacea

ABSTRACT: The possibility of Caribbean water currents transporting larval spiny lobsters (Panulirus argus) to Florida is investigated. Previous research has documented the larval developmental period of P. argus at 150 to 180 days, allowing long distance transport and a wide distribution. Studies of the adult breeding season and the Caribbean distribution of larvae are cited. A review of published water current patterns suggested that Caribbean currents may be important in seeding spiny lobster beds in the Florida Keys and the mainland peninsula. Summer Caribbean currents flow through the Yucatan Straits into central northern Gulf of Mexico; records of tropical fish fauna in Louisiana and northern Florida provide evidence for this transport. Plankton sampling of 22 stations between Key West and the Yucatan Straits established that spiny lobster larvae emanate from south of the straits. Further sampling and analysis of other plankton samples was continuing to determine the geographical distribution and source of P. argus larvae.

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ACC 2046; TYPE P; YEAR 1959
INGLE, R.M.; ELDRED, B.; JONES, H.; HUTTON, R.F.;
PRELIMINARY ANALYSIS OF TORTUGAS SHRIMP SAMPLING DATA. 1957B58.

BIBL FLORIDA STATE BOARD CONSERVATION MARINE LABORATORY, TECHNICAL SERVICES NO. 32. 45 P.

KEYWORD: reproduction, migration, population dynamics, population, crustacea, pink shrimp

ABSTRACT: Twelve stations in the Tortugas shrimping grounds were trawled weekly from November 1957 to October 1958 to examine the population dynamics of the area's commercial shrimp. Numerically, Penaeus duorarum, composed 65% of the shrimp population; the next most abundant species was Trachypenaeus sp., comprising 23% of the population. Extensive data is presented on shrimp size, abundance, reproduction, and migration. A nursery area for young P. duorarum was suspected south of the sampling stations. Recommendations for the protection of the local shrimp population are made in light of the findings.

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ACC 2548; TYPE P; YEAR 1968
INGLE, R.M.; WITHAM, R.;
IOLOGICAL CONSIDERATIONS IN SPINY LO STER CULTURE.

BIBL PROC. GULF & CARIBB. FISH. INST. 21:158-162.

KEYWORD: life history, spiny lobster, artificial habitat

ABSTRACT: The life history of the Florida spiny lobster, Panulirus argus, and its potential for mariculture are reviewed. Attempts to culture postlarvas in artificial habitats in St. Lucie estuary and at Key West, Florida attained consistent results. Cultivation methods and possible problems are discussed.

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ACC 316; TYPE; YEAR 1975
IRBY, B.N.; MCCAUGHAN, D.;
GUIDE TO THE MARINE RESOURCES OF MISSISSIPPI.

BIBL FOX PRINTING COMPANY, HATTIESBURG, MS. 359 PP.

KEYWORD: biology, coastal zone, estuary, fishery, geology, physical process, pollution, wildlife, resource

ABSTRACT: The report was written to provide a unity of information about the Mississippi marine resources for use personally and scientifically. It is divided into three main sections. The first section deals mostly with the physical aspects of the Mississippi coastal area. The geology of the area, the Barrier Islands, the plant life, the estuarine ecosystem, and the effects of pollution in the Mississippi sound are all covered. The second section deals with the different commissions, councils, and laboratories in this area. Some examples are the Mississippi Air and Water Pollution Control Commission, Environmental Protection Agency, and the Gulf Coast Research Laboratory. In the third section, the Coastal Wetlands Protection Law is given, the portsand harbors of coastal Mississippi are listed, a history and discussion of various aspects of the seafood industry is given and finally, information for teaching marine science in schools is outlined.

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ACC 4067; TYPE P; YEAR 1981
IRVINE, A.B.; CAFFIN, J.E.; KOCHMAN, H.I.;
AERIAL SURVEYS FOR MANATEES AND DOLPHINS IN WESTERN PENINSULAR FLORIDA (WITH NOTES ON SIGHTINGS OF SEA TURTLES AND CROCODILES).

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, DC. FWS/OBS-80/50. 20 P.

KEYWORD: aerial survey, distribution, dolphin, mammal, endangered species, manatee, turtle, biology, coastal

ABSTRACT: Low altitude aerial surveys were conducted at approximately monthly intervals from August to December 1979 to count West Indian manatees (Trichechus manatus) and bottlenose dolphins (Tursiops truncatus) in western peninsular Florida. Sightings of sea turtles, turtle tracks, and a crocodile were also noted. A total of 554 manatees was observed in 297 groups. Fifty-eight percent of the manatees were sighted in the Collier-Monroe Counties area in shallow, brackish inshore areas. A total of 1,383 bottlenose dolphins was observed in 431 herds. including 700 (in 146 herds) in the Gulf of Mexico, 491 (in 185 herds) in bays, and 192 (in 100 herds) in marsh-river habitats. Fifty-eight sea turtles (including 45 loggerheads, Caretta caretta) and 30 sets of turtle tracks were counted. One crocodile, probably Crocodilis acutus, was sighted in the Everglades National Park.

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ACC 4068; TYPE P; YEAR 1982
IRVINE, A.B.; CAFFIN, J.E.; KOCHMAN, H.I.;
AERIAL SURVEYS FOR MANATEES AND DOLPHINS IN WESTERN PENINSULAR FLORIDA.

BIBL FISH. BULL. 80(3):621-30.

KEYWORD: aerial survey, biology, distribution, dolphin, manatee, mammal, endangered species, coastal

ABSTRACT: Low-altitude aerial surveys were conducted to count West Indian manatees, Trichechus manatus, and bottlenose dolphins, Tursiops truncatus, in western peninsular Florida. A total of 554 manatees was observed in 297 groups. Most of the manatees (58.5%) were sighted in the Collier-Monroe Counties in shallow, brackish inshore areas. A total of 1,383 bottlenose dolphins was observed in 431 herds, including 700 (in 146 herds) in the Gulf of Mexico, 491 (in 185 herds) in bays, and 192 (in 100 herds) in marsh-river habitats.

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ACC 2047; TYPE P; YEAR 1960
IVERSON, E.S.; IDYLL, C.P.;
ASPECTS OF THE IOLOGY OF THE TORTUGAS PINK SHRIMP, PENAEUS DUORARUM.

BIBL TRANS. AM. FISH. SOC. 89(1).

KEYWORD: biology, pink shrimp, growth, migration, tagging, crustacea, temperature, salinity

ABSTRACT: A one year survey of the pink shrimp, Penaeus duorarum from the Tortugas grounds off southern Florida yielded information on size frequency, growth, and migration. Female and male pink shrimp had an estimated winter growth of 5 and 7 counts per pound (number of shrimp per pound with heads off, respectively. Tagging studies indicated that adult shrimp generally migrate in a northwest direction. Maximum size of females was greater than that of males. Carapace length was directly related to total length. Using size frequency distributions, small shrimp were found to move into the Tortugas grounds from Florida Bay.

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ACC 2048; TYPE P; YEAR 1961
IVERSON, E.S.; JONES, A.C.;
GROWTH AND MIGRATION OF TORTUGAS PINK SHRIMP, PENAEUS DUORARUM, AND CHANGES IN THE CATCH PER UNIT OF EFFORT OF THE FISHERY.

BIBL FLORIDA STATE BOARD CONSERVATION MARINE LABORATORY TECHNICAL SERVICE, NO. 34. 28 P.

KEYWORD: migration, pink shrimp, growth

ABSTRACT: The growth and migratory behavior of tagged pink shrimp, Penaeus duorarum, were studied. The average rate of recovery of tagged shrimp was about 10 percent. Little apparent difference was seen between winter and summer growth rates. Considering both sexes together, small shrimp (67 count or 25 mm carapace length) increased about 10-11 count per month; medium shrimp (33 count or 33 mm carapace length) increased about 2-3 counts per month, and large shrimp (20 count or 40 mm carapace length) increased about 0-1/2 count per month. On the fishing grounds, tagged shrimp were found to move about 5 miles per day and in all directions from the point of release. The majority moved to deeper water in a northwesterly direction. Despite increased fishing effort, the trend line of total production was determined to be approximately level. The catch per boat night has declined over the years 1950-1959.

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ACC 4069; TYPE P; YEAR
IVERSON, R.L.; BITTAKER, H.F.;
SEAGRASS DISTRI UTION AND A UNDANCE IN EASTERN GULF OF MEXICO COASTAL WATERS.

BIBL EST. COAST. SHELF SCI.

KEYWORD: seagrass, biomass, distribution, benthic, epiflora, biology, ecology, coastal

ABSTRACT: The marine angiosperms Thalassia testudinum, Syringodium filiforme, and Halodule wrightii form two of the largest reported seagrass beds along the northwest and southern coasts of Florida where they cover about 3,000 square km in the Big Bend area and about 5,500 square km in Florida Bay, respectively. Most of the leaf biomass in the Big Bend area and outer Florida Bay was composed of Thalassia testudinum and Syringodium filiforme which were distributed throughout the beds but which were more abundant in shallow depths. A short-leaved form of Halodule wrightii grew in monotypic stands in shallow water near the inner edges of the beds, while Halophila decipiens and a longer-leaved variety of H. wrightii grew scattered throughout the beds, in monotypic stands near the outer edges of the beds, and in deeper water outside the beds. Halophila engelmanni was observed scattered at various depths throughout the seagrass beds and in monospecific patches in deep water outside th northern bed. Ruppia maritima grew primarily in brackish water around river mouths. The cross-shelf limits of the two major seagrass beds are controlled nearshore by increased water turbidity and lower salinity around river mouths and offshore by light penetration to depths which receive 10 percent or more of sea surface photosynthetically active radiation. Seagrasses form large beds only along low energy reaches of the coast.

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ACC 1073; TYPE; YEAR 1979
IVESTER, S.;
CHAPTER 13. BENTHIC MEIOFAUNA. IN THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY, 1977/1978.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C.

KEYWORD: Florida, benthic community, benthos, biology, community structure, meiofauna, MAFLA

ABSTRACT: Meiofauna density in the eastern Gulf of Mexico-MAFLA region are in the range for densities from other parts of the world. Marine free-living nematodes comprised 70.3%. Density was highest in shallow inshore waters and decreased to lowest values in depth > 100 m. An inshore density depression is evident south of Mobile Bay where large river inputs seemed to reduce meiofauna density. Meiofauna densities peak in moderate to high carbonate, medium to fine sands. Association patterns between and within stations, and between seasons do not show any definite trends. Correlations between taxa and physical parameters are nonexistent or weak. This is due probably to the limited taxonomic identification. Thirty families of marine free-living nematodes were described from nine selected stations. All are indicative of sandy habitats. Some general reports are records for the North American continent.

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ACC 2428; TYPE P; YEAR 1979
JAAP, W.C.;
OBSERVATIONS ON ZOOXANTHELLAE EXPULSION AT MIDDLE SAMBO REEF, FLORIDA KEYS.

BIBL BULL. MAR. SCI. 29(3):414-422.

KEYWORD: Monroe, coral, reef, temperature, tide, weather, stress, algae, wind

ABSTRACT: Large scale discoloration of corals at Middle Sambo Reef, 7.8 km from Boca Chica Key, Monroe County, Florida was investigated on September 26, 1973. The hydrozoan coral Millepora complanata displayed the greatest discoloration, though some Acropora palmata, Montastraea annularis and Palythoa sp. colonies were mildly discolored. Discoloration of organisms was generally limited to the reef flat. Affected corals were still viable. High air temperatures and mid day low tides combined with calm weather are believed to have elevated water temperature sufficiently to incur thermal stress, thereby causing expulsion of endosymbiotic algae, Gymnodinium microadriaticum, with consequent discoloration of coral hosts. Most polyps regained normal color within 6 weeks. The shallow reef cnidarian communities appear to suffer no permanent effect due to short periods of thermal stress. Similar incidents of coral discoloration are reviewed.

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ACC 2429; TYPE P; YEAR 1975
JAAP, W.C.; WHEATON. J ;
OBSERVATIONS ON FLORIDA REEF CORALS TREATED WITH FISH-COLLECTING CHEMICALS.

BIBL FLA. MAR. RES. PUBL. 10. 18 P.

KEYWORD: Monroe, reef, coral, scleractinia, temperature, salinity, DO, pollutant

ABSTRACT: Twenty-one species of reef corals (11 Seleractinia, 10 Octocorallia) from Western Sambo Reef, south of Boca Chica Key, Florida were treated with fish collecting chemicals and examined 5 times between August 1973 and June 1974 for deleterious effects. The chemicals used were 100% acetone, a quinaldine/acetone/seawater solution, a commercial rotenone derivative/seawater solution, and undiluted rotenone derivative. No octocorals were damaged by any of the chemicals. Some individuals of 6 scleractinian species (Acropora palmata, A. cervicornis, Siderastrea siderea, Diploriastrigosa, Colpophyllia natans, Dichocoenia stokesi) suffered severe damage by the undiluted rotenone derivative. Little or no damage occurred to other scleractinia from any of the chemicals. The reactions of other reef-dwelling organisms to the chemicals are described.

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ACC 4070; TYPE P; YEAR 1984
JAAP, W.C.;
THE ECOLOGY OF THE SOUTH FLORIDA CORAL REEFS; A COMMUNITY PROFILE.

BIBL U.S. FISH AND WILDLIFE SERVICE FWS/OBS-82/08. 138 P.

KEYWORD: biology, geology, ecology, management, reef, benthic, reef fish

ABSTRACT: An overview of coral reef research in southern Florida is provided as a prelude to a genuine description of the coral reef ecosystem in the Florida Keys and surrounding environments. Coral reef community types, reef benthos, plankton and reef fish are given specific treatment. Coral reef ecology and management are described.

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ACC 4213; TYPE P; YEAR 1978
JACKSON, W.B.; BAXTER, K.N.; CAILLOUET, C.W.;
ENVIRONMENTAL ASSESSMENT OF THE UCCANEER OIL AND GAS FIELD OFF GALVESTON, TEXAS: AN OVERVIEW.

BIBL IN: PROC. 10TH ANNU. OFFSHORE TECH. CONF. 1:277-284.

KEYWORD: pollutant, sediment, ichthyoplankton, fish, crustacean, shrimp, communities, oil spill

ABSTRACT: In 1975, the Galveston Laboratory of the National Marine Fisheries Service (NMFS) was given responsibilities for project management of a comparative environmental assessment of an active oil and gas field in the northwestern Gulf of Mexico. The Buccaneer Oil and Gas Field was selected as the study area because it has been in development and production since 1960, thus allowing ample time for the development of oilfield-associated marine communities. Present studies in this field are determining the concentration of pollutants in major components of the marine ecosystem, including water, sediment, suspended particulate matter, ichthyoplankton, sessile organisms, pelagic finfishes, and demersal finfishes and macro-crustaceans. Effects of oilfield discharge effluents are being assessed by acute and chronic effects of bioassays on shrimp and fishes, by observing alteration of composition and abundance of biotic communities, and by investigating accumulation of contaminants in biotic and abiotic components of the ecosystem. Special attention is being given to food web dynamics and to physicochemical modes of transport of pollutants into and away from the marine ecosystem in the field.

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ACC 4279; TYPE P; YEAR 1979
JACKSON, W.B.;
ENVIRONMENTAL ASSESSMENT OF AN ACTIVE OIL FIELD IN THE NORTHWESTERN GULF OF MEXICO, 1977B1978.VOL. II. DATA MANAGEMENT AND IOLOGICAL INVESTIGATIONS. ANNU. REPT.

BIBL NATIONAL MARINE FISHERIES SERVICE, GALVESTON, TX. 799P.

KEYWORD: oil, biological, chemical, physical, ecosystem, pollutant

ABSTRACT: To obtain information concerning the environmental consequences of increased development of the outer continental shelf in the Gulf of Mexico, major research efforts are being made to document environmental conditions before, during, and after oil and gas production, and transmission. Among these efforts is the Environmental Assessment of the Buccaneer Oil and Gas Field. Objectives of the project are: (1) to identify and document the types and extent of biological, chemical and physical alteratiens of the marin ecosystem associated with Buccaneer Oil Field, (2) to determine specific pollutants, their quantity and effects, and (3) to develop the capability to describe and predict fate and effects of Buccaneer Oil Field contaminants.

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ACC 2265; TYPE P; YEAR 1983
JENSEN, P.R.; GIBSON, R.A.;
PRIMARY PRODUCTION IN THREE SU TROPICAL SEAGRASS COMMUNITIES: A COMPARISON OF FOUR AUTOTROPHIC COMPONENTS.

BIBL FLA. SCI. 46(SUPPL. 1):16.

KEYWORD: seagrass, algae, phytoplankton, primary productivity

ABSTRACT: Primary production rates of seagrass, associated epiphytic flora, microbenthic algae, and phytoplankton were compared from seagrass communities in Tampa Bay and Indian River, Florida, and Little Bahama Bank. Phytoplankton were found to be the major annual producers in Tampa Bay and the Indian River (87% and 93%. respectively), whereas annual production in Little Bahama Bank was primarily due to seagrass and their epiphytes (71% total).

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ACC 4071; TYPE P; YEAR 1985
JOHN E. CHANCE & ASSOCIATES. INC.;
PHOTODOCUMENTATION SURVEY OF LOCK. 622 (OCSBGB4950)CHARLOTTE HAR OR AREA, OFFSHORE FLORIDA, CONDUCTED ON 6B12B85 AND 6B11B85.

BIBL A REPORT FOR SHELL OFFSHORE INC., NEW ORLEANS, LA.

KEYWORD: biology, benthic, epibiota, live bottom, photodocumentation, remote sensing

ABSTRACT: A photodocumentation survey of Charlotte Harbor Lease Block 622 was conducted using a remotely operated vehicle equipped with video and still cameras. The area was characterized by a coralline algal substrate, which supported numerous epifaunal invertebrates and fishes. In the western portion of the survey area, hard/live bottom areas were observed. These low relief areas supported a deep reef assemblage of tropical affinities.

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ACC 4072; TYPE P; YEAR 1985
JOHN E. CHANCE & ASSOCIATES, INC.;
PHOTODOCUMENTATION SURVEY OF LOCKS 623 (OCSBGB4951),667 (OCSBGB4954)AND 711 (OCSB GB4958),CHARLOTTE HAR OR AREA, OFFSHORE FLORIDA, CONDUCTED ON JUNE 6B81985 AND JUNE 11B12,1985.

BIBL A REPORT FOR SHELL OFFSHORE INC., NEW ORLEANS, LA.

KEYWORD: biology, benthic, epibiota, live bottom, epiflora, photodocumentation, remote sensing

ABSTRACT: Photodocumentation surveys were conducted in three Charlotte Harbor Lease Blocks off southwest Florida using a remotely operated vehicle equipped with video/still camera systems. No hard bottom areas were found during the photodocumentation survey of proposed well sites in blocks 623, 667, and 711. The predominant bottom type encountered consisted of a sand and shell hash substrate overlain with epibenthic algae. The second bottom type observed was sandy substrate covered with coralline algal nodules. Within each lease block, various fishes and macroinvertebrates (sessile and mobile) associated with these substrates were identified from the photographs and video.

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ACC 4073; TYPE P; YEAR 1983
JOHNSON, A.G.;
AGE AND GROWTH OF YELLOWTAIL SNAPPER FROM SOUTH FLORIDA.

BIBL TRANS. AM. FISH. SOC. 112:173-177.

KEYWORD: biology, fish, commercial fishery, life history, snapper, reeffish

ABSTRACT: Age and growth of yellowtail snapper Ocyurus chrysurus from south Florida were determined from otolith cross-sections. The oldest fish was 14 years old (443-mm at the end of year 1 to 429 mm at the end 14. The von Bertalanffy equation for 802 yellowtail snapper aged 10 or less was L SUB t = 450.9(1 - e SUP - 0.279(t+0.355)), where L = fork length (mm) and t = years. The length-weight relationship was W = 6.13 X 10 SUP -5 L SUP 2.76, where W = weight (g).

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ACC 2022; TYPE P; YEAR 1934
JOHNSON, F.F.; LINDNER, M.J.;
SHRIMP INDUSTRY OF THE SOUTH ATLANTIC AND GULF STATES.

BIBL U.S. BUR. FISH. INVEST. REP. 21-83 P.

KEYWORD: shrimp, fishery, fishing gear

ABSTRACT: The shrimp fishery of the south Atlantic and Gulf states is reviewed. The methods and gear, economics, and catch statistics are discussed.

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ACC 422; TYPE; YEAR 1980
JOHNSON, P.G.;
SEASONAL VARIATION IN ENTHIC COMMUNITY STRUCTURE IN MO ILE AY, ALA AMA.

BIBL MASTER'S THESIS. UNIVERSITY OF ALABAMA IN BIRMINGHAM, BIRMINGHAM, AL. 118 PP.

KEYWORD: benthic community, biology, macrofauna, seasonal variation, sediment, seasonality

ABSTRACT: Not available.

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ACC 2108; TYPE P; YEAR 1981
JOHNSON, P.G.;
STANDARDIZATION OF IDENTIFICATIONS OF ENTHIC POLYCHAETOUS ANNELIDS FROM THE GULF OF MEXICO OUTER CONTINENTAL SHELF.

BIBL AM. ZOOL. 21(4):223. (ABSTRACT).

KEYWORD: benthic, polychaete, distribution, habitat, biology, ecology, zoogeography

ABSTRACT: This abstract reports on the preparation of a manual for the identification and distribution of polychaetes collected on the outer continental shelf of the Gulf of Mexico. Included will be taxonomic keys and descriptions for more than 600 species representing 296 genera in 58 families, illustrations of diagnostic features, distributional maps, and habitat information for each species. Described in the introduction will be the geographical setting, materials and methodology, terminology and techniques used in polychaete identifications, and general information on the biology, ecology and zoogeography of polychaetes from the Gulf of Mexico. This publication will provide a common, comparable taxonomic basis for benthic macroinfaunal studies. (Anticipated completion date is September 1983).

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ACC 2109; TYPE P; YEAR 1983
JOHNSON, P.G.; UEBELACKER, J.M.;
ECOLOGICAL CHARACTERIZATION OF MACROFAUNAL COMMUNITIES OF THE EASTERN GULF OF MEXICO.

BIBL PRESENTED AT BENTHIC ECOLOGICAL MEETING, FLORIDA INSTITUTE OF TECHNOLOGY, MELBOURNE, FL.

KEYWORD: benthic, polychaete, crustacean, community, sediment, assemblage

ABSTRACT: Benthic macroinfaunal polychaetes and crustaceans were sampled at 107 stations on the Mississippi, Alabama, and western Florida outer

continental shelf from June 1975 to February 1978. A total of 204,414 individuals were collected, representing approx. 600 polychaet= species in 60 families and 360 crustacean species in 88 families. Trends in community structure and composition were identified and examined in terms of relevant environmental parameters. Animal/sediment relationships, feeding types and general zoogeographical affinities among the polychaete-crustac and assemblages were discussed.

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ACC 2551; TYPE P; YEAR 1982
JOHNSON, R.O.;
THE EFFECTS OF DREDGING ON OFFSHORE ENTHIC MACROFAUNA SOUTH OF THE INLET AT FORT PIERCE, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA INSTITUTE OF TECHNOLOGY, MELBOURNE, FL. 137 P.

KEYWORD: diversity, temperature, salinity, turbidity, dissolved oxygen, benthic, community, abundance, invertebrate, sediment, grain size, dredging

ABSTRACT: The effects of offshore dredging at Ft. Pierce inlet, Florida on benthic macrofaunal communities was investigated between November 1981 and August 1982. Four transects (2 dredged sites; 2 control sites) were sampled trimonthly with a Smith-McIntyre grab to determine species number, evenness, diversity, and species composition. Temperature, salinity, turbidity, and dissolved oxygen were monitored at all stations. Comparison of benthic communities at dredged and control sites revealed that diversity, species richness and evenness, and abundance, all returned to pre-dredge levels after 12 months.

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ACC 885; TYPE; YEAR 1972
JOLLEY, J.;
EXPLORATORY FISHING FOR THE SUNRAY VENUS CLAM, MACROCALLISTA NIM OSA, IN NORTHWEST FLORIDA.

BIBL FLORIDA DEPARTMENT OF NATURAL RESOURCES, MARINE RESOURCES LABORATORY, ST. PETERSBURG, FL.

KEYWORD: mollusca, pelecypoda, benthic fauna, commercial fishery, population density

ABSTRACT: An exploratory fishing project designed to locate commercially harvestable populations of sunray venus clams, Macrocallista nimbosa, was carried out from November 1969 to April 1970 along Florida's west coast. Physical data recorded included water depth, temperature, salinity, secchi disc depth, and bottom type. Catch of venus clams was reported. Taxonomic determinations of associated fauna were made.

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ACC 224; TYPE; YEAR 1973
JONES, J.I.; ET AL.;
PHYSICAL OCEANOGRAPHY OF THE NORTHEAST GULF OF MEXICO AND FLORIDA CONTINENTAL SHELF AREA.

IN: J.I. JONES, R.E. RING, M.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL. 69 PP.

KEYWORD: circulation, continental shelf, currents, oceanography, tide, upwelling, water mass, physical oceanography

ABSTRACT: Not available.

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ACC 566; TYPE; YEAR 1975
JONES, P.H.;
GEOTHERMAL AND HYDRODYNAMIC REGIMES IN THE NORTHERN GULF OF MEXICO ASIN.

BIBL PROCEEDING 2ND U.N. SYMPOSIUM ON THE DEVELOPMENT AND USE OF GEOTHERMAL RESOURCES 3:15-89.

KEYWORD. geology, geothermal, resource, sedimentation, sediment

ABSTRACT: Not available.

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ACC 2168; TYPE P; YEAR 1963
JONES, A.C.;
DISTRI UTION OF PINK SHRIMP LARVAE (PENAEUS DUORARUM URKENROAD) IN SOUTH FLORIDA.

BIBL INT. CONGR. ZOOL. PROC. 16. P. 105.

KEYWORD: distribution, pink shrimp, zoogeography, temperature, currents

ABSTRACT: The distribution of pink shrimp larvae on the southern Florida shelf was studied to determine their dispersion from an area of spawning. Variations in numbers of larvae exhibited in space and time ware evaluated by an analysis of variance model with a factoral arrangement of the variables (month of collection, geographic area, and age of the largae). The numbers of larvae in time were related to the annual temperature cycle. The numbers increased rapidly with rising temperature in spring, fluctuated about a high level in summer, decreased with falling temperature in autumn, and fluctuated about a low level in winter. Larvae were unequally distributed in the geographical area of study. The resultant water currents were shown to be of insufficient magnitude to transport larvae to the coastal estuaries. Migration can be accompanied by the larvae only by moving with the flood stream of tidal currents.

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ACC 2430; TYPE P; YEAR 1963
JONES, J.A.;
ECOLOGICAL STUDIES OF THE SOUTHEASTERN FLORIDA PATCH REEFS. PART I. DIURNAL AND SEASONAL CHANGES IN THE ENVIRONMENT.

BIBL BULL. MAR. SCI. GULF & CARIBB. 13(2):282-307.

KEYWORD: Monroe, reef, temperature, salinity, dissolved oxygen, nutrient, currents, primary productivity

ABSTRACT: The environmental conditions of the patch reefs in southeastern Florida were described. Water temperature was found to vary approximately 0.5 to 1.5 degrees C diurnally, generally in response to air temperature fluctuations and solar radiation. Salinity was determined to be relatively stable at 37 parts per thousand, modified slightly by precipitation and evaporation. Other parameters monitored in this study include dissolved oxygen (90.125%), pH (7.6 to 8.2), plant nutrients, current velocity and direction, incident illumination, cloud cover, extinction coefficients and primary productivity.

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ACC 4074; TYPE P; YEAR 1973
JONES, J.I.; RING, R.E.; RINKEL; SMITH, R.E., EDS.;
A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: meteorology, physical, oceanography, biology, geology, chemistry, socioeconomic

ABSTRACT: This report represents a compilation and evaluation of selected studies of the significant natural and artificial environmental characteristics of the eastern Gulf of Mexico. It has been prepared by a group of qualified scientists collectively conversant with the major environmental aspects of the subject region. The purpose of this report is to provide an overview of the current status of knowledge and information on past and ongoing studies which are significant for a more complete understanding of the environment and ecology of this area. Selected investigations have been utilized by the respective authors, and there has been an attempt to list or discuss all studies within the area. Each section of this report has been compiled and written as a "report within a report" and is meant to stand alone as a distinct scientific document or statement.

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ACC 223; TYPE; YEAR 1973
JORDAN, C.L.;
CLIMATE

IN: J.I. JONES, R.E. RING, M.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL. 22 PP.

KEYWORD: climatic data, climatology, precipitation, statistics, temperature, meteorology

ABSTRACT: Climatological data from coastal stations and summaries of meteorological observations from ships are used to describe the broad climatic features of the eastern Gulf of Mexico. The seasonal changes in wind, temperature, cloudiness, and precipitation are related in a general way to the character of the large-scale circulation patterns and the associated seasonal changes in storm tracks and air masses. Statistical information is presented for selected coastal stations and for a summary area in the east-central Gulf for a number of climatological elements including rainfall, thunderstorms, fog, winds, and waves. Information is also provided on the frequency and seasonal distribution of tropical and extra-tropical cyclones in selected areas, and data are given on maximum hurricane surge heights for the region. Data sources and reliability are discussed in relation to the

possibility of providing more detailed climatological information for the eastern Gulf.

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ACC 4075; TYPE P; YEAR 1959
JORDAN, G.F.; STEWART, H.B., JR.;
CONTINENTAL SLOPE OFF SOUTHWEST FLORIDA.

BIBL AM. ASSOC. PETROL. GEOL. BULL. 43(5):974-991.

KEYWORD: sediment, geology, continental shelf, reef, geophysical, continental slope

ABSTRACT: Recent surveys of the west Florida continental slope made by the Coast and Geodetic Survey show for the first time th detailed topography of the southern part of this area. A marked change in topography at 27 degrees North latitude separates the northern from the southern part of the slope and is related to north-to-south changes from clastic to non-clastic underlying bedrock and from thick to thin or non-existent overburden of unconsolidated sediments. A drowned barrier spit and lagoon unchanged by subsequent erosion or deposition were revealed at 75-100 fathoms. These features are described and discussed along with numerous long breaks in slope, embayments, and offsets in the steep lower slope, reef patches, dome-like structures, and spur-shaped ridges.

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ACC 340; TYPE; YEAR 1983

JOSS, J.W.; MARAK, R.R.;
MARMAP (MARINE RESOURCES MONITORING, ASSESSMENT, AND PREDICTION, PLANKTON SURVEY MANUAL.

BIBL NATIONAL MARINE FISHERIES SERVICE, NORTHEAST FISHERIES CENTER, WOODS HOLE, MA. NOAA-TM-NMFS-F/NEC-21. 278 PP.

KEYWORD: biology, fishery, food chain, mortality, oceanography, continental shelf, plankton, ichthyoplankton

ABSTRACT: Not available.

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ACC 2023; TYPE P; YEAR 1966
JOYCE, E.A., JR.; ELDRED, B.;
THE FLORIDA SHRIMPING INDUSTRY.

BIBL FLORIDA BOARD CONSERVATION MARINE LABORATORY, EDUCATIONAL SERVICE NUMBER 15. 47 P.

KEYWORD: brown shrimp, pink shrimp, life history, growth, migration, morphology

ABSTRACT: Florida's commercial shrimp industry is based on 3 species of shrimp: Penaeus fluviatilis (white shrimp); P. aztecus (brown shrimp); and P. duorarum (pink shrimp). All three species have similar life histories and overlapping ranges. Morphological and growth characteristics and spawning periods and seasonal migrations of each species are summarized. Information on commercial shrimping for food and bait shrimp, including catch sizes, types of trawls, production of shrimping areas, importance of minor shrimp species, and effectiveness of conservation regulations is reviewed. The potential, methods and problems for shrimp farming in Florida are discussed.

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ACC 4076; TYPE P; YEAR 1969
JOYCE, E.A., JR.; WILLIAMS, J.;
RATIONAL AND PERTINENT DATA. MEMOIRS OF THE HOURGLASS CRUISES. VOL. I, PART I.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 50 P.

KEYWORD: hourglass, hydrography, biology, benthic, continental shelf

ABSTRACT: This paper describes in detail the rationale, cruise patterns, stations, gear, sampling procedures, and methods of specimen handling, and presents all the hydrographic data accumulated during the 28 months of the Hourglass program (August 1965-November 1967). The Hourglass cruises were conducted by the Marine Research Laboratory of the Florida Board of Conservation and represent one of the few major systematic biological sampling programs undertaken on the continental shelf of the Gulf of Mexico. Volume I, Part I is the first in a new series of Laboratory publications which will deal with results obtained from the Hourglass program. This issue is designed to make the basic data available and to eliminate needless repetition in succeeding volumes.

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ACC 2024; TYPE P; YEAR 1976
JUHL, R.; DRUMMOND, S.B.;
SHRIMP YCATCH INVESTIGATIONS IN THE UNITED STATES OF AMERICA. A STATUS REPORT.

BIBL NOAA, NMFS, SE FISH. CTR. REPT. P. 213-226.

KEYWORD: shrimp, fishery, pink shrimp, brown shrimp, shrimp fishery

ABSTRACT: Preliminary results from an NMFS shrimp bycatch investigation were presented in this report. Penaeus aztecus, P. duorarum, and P. setiferus were reported to make up the bulk of the catch. The center of the shrimp fishery was found to be in the Gulf of Mexico and along the SE seaboard of the U.S. The

average annual catch of penaeids was determined and explanations were presented for variations.

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ACC 73; TYPE; YEAR 1980
KAHN, J.H.;
THE ROLE OF HURRICANES IN THE LONG TERM DEGRADATION OF A ARRIER ISLAND CHAIN: CHANDELEUR ISLANDS, LA.

BIBL MASTER'S THESIS. LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE, BATON ROUGE, LA. 97 PP.

KEYWORD: erosion, hurricane, geomorphology, sediment, meteorology, physical process, sediment transport, barrier island

ABSTRACT: Study of the morphological impact of Hurricane Frederic in 1979 affirmed that hurricanes function as the primary mechanism of land loss and migration of the Chandeleur Islands, Louisiana. Storm response/recovery patterns were examined through repeated aerial and ground reconnaissance in the three months following Frederic, and by comparison of pre- and post-storm aerial photographs. Frederic cut more than 40 major channels through the Chandeleurs, and severely eroded Gulf-side beaches. Following Frederic there was rapid recovery from temporary storm-induced morphological changes. Frederic's greatest impact was in the southern half of the study area, where wave attack permanently destroyed a strip of mangrove marsh, 50-100 m wide, at the beach-marsh interface. Measurements from historical charts indicate an average long-term Gulf shoreline erosion rate of approximately 10 m/yr at the study area's northern and southern ends, about twice the erosion rate in the arc's central portions. An estimated 50-90% of the net shoreline erosion in this century has resulted from the 23 hurricanes that have made landfall in this region since 1900. The subaerial extent of the north-central segment of the study area doubled between 1885 and 1969, while all other barrier segments lost land. Results of this study suggest that shoreline orientation, sediment type, and pre-storm geomorphology are the main determinants of barrier island storm response and post-storm recovery. The north-central segment of the arc is maintaining its subaerial profile by revegetation of washover deposits to form new land in Chandeleur Sound.

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ACC 845; TYPE; YEAR 1974
KAKAREKA, J.P;
A STUDY OF ORGANIC POLLUTANT TRANSFER PROCESSES IN THE ESTUARINE ENVIRONMENT.

BIBL MASTER'S THESIS. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 96 PP

KEYWORD: pesticide, phthalates, pollution, transport, estuary, physical process

ABSTRACT: Levels of DDT, DDE, DDD, PCB's and phthalates were determined for sediment, suspended matter and water in the Mississippi River delta and near shore areas of the northern Gulf of Mexico. Water samples were collected at 30 stations and sediment samples at 16 stations during a July, 1973 cruise by the R/V Longhorn and a May and June 1974 cruise by the R/V Gyre.

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ACC 2266; TYPE P; YEAR 1967
KELLY, J.A., JR.; DRAGOVICH, A.;
OCCURRENCE OF MACROZOOPLANKTON IN TAMPA AY, FLORIDA, AND THE ADJACENT GULF OF MEXICO.

BIBL FISH. BULL. 66(2):209-221.

KEYWORD: zooplankton, temperature, salinity

ABSTRACT: A year of sampling in Tampa Bay indicated that decapod crustaceans accounted for 87% of the total number of zooplankton collected. The dominant organisms included Lucifer faxoni, larval porcellanids, brachyurans, chaetognaths, copepods, larval polychaetes, carideans, appendicularids, larval fish, thalassinids, cladocerans and larval stomatopods. It was determined that low temperature and salinity values were more restrictive than high ones to most of the organisms.

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ACC 4272; TYPE P; YEAR 1983
KELLER, C.E.; ADAMS, J.K. (EDS.);
PROCEEDINGS OF A WORKSHOP ON CETACEANS AND SEA TURTLES IN THE GULF OF MEXICO: STUDY PLANNING FOR EFFECTS OF OUTER CONTINENTAL SHELF DEVELOPMENT.

BIBL FISH AND WILDLIFE SERVICE, WASHINGTON, DC. 47 P.

KEYWORD: cetacean, turtle, petroleum, endangered species

ABSTRACT: The purpose of the workshop was to assemble scientists knowledgeable about cetaceans, sea turtles, and the Gulf of Mexico to discuss the potential impacts of offshore oil and gas development on these animals and make recommendations for future research. The workshop began with brief presentations about the environment of the Gulf of Mexico and the cetaceans and sea turtles found there, and a review of petroleum effects on these animals. The following points were then discussed: (1) ways in which cetaceans and sea turtles have been or could be affected, either directly or indirectly by activities and events associated with offshore oil and gas development were identified; (2) the types and specificity of data needed to predict, detect, and mitigate possible adverse effects were identified; (3) the advantages and disadvantages of various methods that might be used to obtain needed data were discussed; and (4) specific research and monitoring programs that would be required to obtain needed data, including the necessary expertise, level of effort, equipment, and facilities were identified.

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ACC 797; TYPE; YEAR 1983

KENDALL, D.R.;
THE ROLE OF PHYSICAL BCHEMICAL FACTORS IN STRUCTURING SU TIDAL MARINE AND ESTUARINE ENTHOS.

BIBL U.S. ARMY CORPS OF ENGINEERS, WATERWAYS EXPERIMENT STATION, VICKSBURG, MS. DRAFT TECHNICAL REPORT EL-83.

KEYWORD: invertebrata, benthic community, biology, currents, estuary, salinity, sediment, temperature

ABSTRACT: Not available.

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ACC 4199; TYPE P; YEAR 1983
KENNICUTT, M.C., II; KENNEY-KENNICUT, W.L.; BRESLEY, B.J.; FENNER. F ;
THE USE OF PYROLYSIS AND ARIUM DISTRI UTIONS TO ASSESS THE AREAL EXTENT OF DRILLING FLUIDS IN SURFICIAL MARINE SEDIMENTS.

BIBL ENVIRON. GEOL. 4(3-4):239-249.

KEYWORD: barium, drilling fluid, sediment, drilling mud

ABSTRACT: Not available.

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ACC 4300; TYPE P; YEAR 1983
KENNEDY, E.A.; PEQUEGNAT, W.E.; HUBBARD, G.F.; JAMES, B.M.; POTTER, C.M.;
ECOLOGICAL EFFECTS OF ENERGY DEVELOPMENT ON REEF FISH, ICHTHYOPLANKTON AND ENTHOS POPULATIONS IN THE FLOWER GARDEN ANKS OF THE NORTHWESTERN GULF OF MEXICO, 1980B1982.VOL. 1. ECOLOGICAL SURVEY OF THE MACROINFAUNAL COMMUNITY NEAR THE FLOWER GARDEN ANKS.

BIBL FINAL REPT. SCIENCE APPLICATIONS, INC., OAK RIDGE, TN. REPT. NO. NOAA-83120104.

KEYWORD: fish, ichthyoplankton, infauna, oil and gas, drilling, continental shelf, sediment

ABSTRACT: This research project was developed with the overall objective of assisting in the assessment of possible impacts of oil and gas exploit on the biota of the Flower Garden Banks, which are located on the outer continental shelf of the northern Gulf of Mexico. No definitive evidence was obtained from this study that drilling either at Platform A or at Platform B produced any significant impacts upon sediment texture, TOC, or the associated macroinfauna.

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ACC 2431; TYPE P; YEAR 1972
KERR, S.D., JR.;
PATTERNS OF COASTAL SEDIMENTATION: CAR ONATE MUDS OF FLORIDA AY.

BIBL BULL. AM. ASSOC. PETROL. GEOL. 56(3):632 (ABSTRACT).

KEYWORD: Monroe, carbonate, sediment, distribution

ABSTRACT: The accumulation of carbonate muds into distinct sedimentary patterns within Florida Bay was examined. The physiography of the accumulation was determined by hydrological processes which also regulate local faunal distributions. Characteristics of the most common sedimentary patterns, banks and lakes were summarized and their historical formations were discussed.

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ACC 1055; TYPE; YEAR 1974
KETCHUM, B.H.;
MOVEMENT OF HEAVY METALS AND ORGANHALOGENS THROUGH FOOD CHAINS AND THEIR EFFECTS ON POPULATIONS AND COMMUNITIES.

IN: A.D. MCINTYRE AND C.F. MILLS. EDS. ECOLOGICAL TOXICOLOGY RESEARCH. P. 285-300.

BIBL PLENUM PRESS, NEW YORK, NY.

KEYWORD: bioaccumulation, biology, biomagnification, coastal water, ecology, heavy metal, pesticide, pollution

ABSTRACT: The effects of chemical pollutants on populations and communities are discussed.

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ACC 788; TYPE; YEAR 1965
KHROMOV, N.S.;
DISTRI UTION OF PLANKTON IN THE GULF OF MEXICO AND SOME ASPECTS OF ITS SEASONAL DYNAMICS.

BIBL SOVIET - CUBAN FISHERY RESEARCH TRANSLATIONS.

KEYWORD: biology, phytoplankton, primary productivity, standing crop, seasonality

ABSTRACT: Not available.

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ACC 2432; TYPE P; YEAR 1981
KICK, R.;
CAR ONATE SEDIMENTS FROM PETERSON KEY ANK, FLORIDA AY.

BIBL MASTER'S THESIS. UNIVERSITY OF SOUTH FLORIDA, TAMPA, FL.

KEYWORD: Monroe, carbonate, sediment, mollusc, foraminifera, depth, grain size

ABSTRACT: A study of carbonate sediments at Peterson Key Bank, Florida Bay, demonstrated that all sediments are of biological origin, produced predominantly by molluscs, Halineda, and Foraminifera. Difference in sediment texture was attributed to the mode of sedimentary breakdown by organisms. These organisms and the type of sediment they produce are summarized. The distribution of sediment type was used to determine the recent history of two channels in the bank.

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ACC 4077; TYPE P; YEAR 1976
KINCH, J.E.; O'HARRA, L.E.;
CHARACTERISTICS OF THE SPORT FISHERY IN THE TEN THOUSAND ISLANDS AREA OF FLORIDA.

BIBL BULL. MAR. SCI. 26(4):479-487.

KEYWORD: coastal, fish, fishing effort, management, redfish, recreational fishery, sea trout, snapper, snook, socioeconomic, sport fishery

ABSTRACT: This study represents the first in-depth analysis of the sport-fishing catch and effort in the upper Ten Thousand Islands area. It was undertaken to provide comparative observations with similar studies conducted along the southern coastal areas in the Everglades National Park and to provide a basis for future comparisons of fishing pressure upon these resources as the areas' human population grows. The interview data were collected from August 1971 to October 1972. Boat counts from July 1971 to June 1974 were utilized to estimate total sport-fishing effort from boats. The major species caught and the success for the various types of fishermen were established. Seasonality was found to be the major factor in fishing pressure. The charter-guide method was the most successful in catch per unit effort.

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ACC 2433; TYPE P; YEAR 1965
KISSLING, D.L.;
CORAL DISTRI UTION ON A SHOAL IN SPANISH HAR OR, FLORIDA KEYS.

BIBL BULL. MAR. SCI. 15:599-611.

KEYWORD: Monroe, coral, distribution, depth, substrate, reef

ABSTRACT: The distribution of several coral species living on a shoal in Spanish Harbor, Florida Keys, was correlated with water depth, vegetative growth, and substrate type. Densities of Porites porites and Manicina areolata were higher in unconsolidated sediments with dense vegetation which help support their free coralla. Siderastrea radians, S. siderea, P. asteroides, and Favia fragum inhabited firm substrata necessary for their attachment. F. fragum was least tolerant of unconsolidated sediment and preferred depths greater than 1.5 ft. as did P. asteroides. Results were compared with those of other similar studies conducted in the Florida reef tract.

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ACC 2434; TYPE P; YEAR 1977
KISSLING, D.L.; TAYLOR, G.T.;
HA ITAT FACTORS FOR REEFBDWELLING OPHIUROIDS IN THE FLORIDA KEYS.

BIBL PROC. THIRD INTERNAT. CORAL REEF SYMP. P. 225-231.

KEYWORD: Monroe, coral, reef, depth, currents, substrate, distribution, echinodermata

ABSTRACT: A survey of ophiuroid populations on coral reefs in the lower Florida Keys revealed 10 species that exhibit strong habitat preferences. Habitat selection among 7 of the ophiuroid species was determined to be mainly a response to one or more physical habitat factors, possibly related to feeding. The effects of depth, current patterns, and substrates on ophiuroid distribution were determined. The zonation of reef dwelling ophiuroids was coincident with several physiographic habitats.

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ACC 338; TYPE ; YEAR 1971
KLIMA, E.F.; WICKHAM, D.A.;
ATTRACTION OF COASTAL PELAGIC FISHES WITH ARTIFICIAL STRUCTURES.

BIBL TRANS. AM. FISH. SOC. 100(1):86-99.

KEYWORD: artificial reef, biology, coastal water, fishery, pelagic fish

ABSTRACT: Not available.

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ACC 339; TYPE; YEAR 1972
KLIMA, E.F.; ROE, R.B.;
REPORT OF THE NATIONAL MARINE FISHERIES, SOUTHEAST FISHERIES CENTER, PASCAGOULA LA ORATORY, FISCAL YEARS 1970 AND 1971.

BIBL NATIONAL MARINE FISHERIES, SOUTHEAST FISHERIES CENTER, PASCAGOULA, MS. NOAA-TM-NMFS-SEFC-2. 28 PP.

KEYWORD: aerial survey, benthos, biology, continental shelf, fauna, remote sensing

ABSTRACT: Among the activities of the center reported here are the following: investigations into the application of remote sensors for resource detection using aerial photography, pulsed lasers, spectrophotometry, and low-light-level imagery, assessment surveys along the outer continental shelf and upper continental slopes of the Gulf of Mexico and Caribbean Sea where deep- sea prawns, crabs, and silver hake were taken in quantity. RUFAS, the remote controlled underwater fisheries assessment vehicle, was used successfully in benthic shelf explorations. Electrical harvesting gear were planned to increase the efficiency of available gear and to provide the technology for sampling resources presently impossible to harvest.

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ACC 2327; TYPE P; YEAR 1979
KLINGER, T.;
A STUDY OF SEDIMENT PREFERENCE AND ITS EFFECT ON DISTRI UTION IN LUDIA CLATHRATA SAY (ECHINODERMATA: ASTEROIDEA).

BIBL MASTER'S THESIS. UNIVERSITY SOUTH FLORIDA, TAMPA, FL.

KEYWORD: Charlotte, sediment, grain size, infaunal, echinodermata

ABSTRACT: The influence of sediment grain size, organic content, and infaunal prey density on the distribution of a population of the sea star, Luidia clathrata, was investigated in Charlotte Harbor, Florida. The distribution of L. clathrata was not significantly affected by substratum variations, presumably due to the homogeneity of sediment characteristics. Laboratory observations revealed a negative response of the sea stars to organic level; however, field populations exhibited no such response, probably due to differences in the relative organic concentrations in the water column.

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ACC 4078; TYPE P; YEAR 1981
KOBLINSKY, C.J.;
THE M2 TIDE ON THE WEST FLORIDA SHELF.

BIBL DEEP-SEA RES. 28A(12):1517-1532.

KEYWORD: circulation, currents, hydrography, bottom pressure, physical, oceanography, tide, numerical model

ABSTRACT: The M2 tide on the West Florida Shelf was analyzed with data from five arrays of current meter and bottom pressure sensors spanning a 2-year period. The observations of the tidal fluctuations ar consistent with a linear barotropic flow model. Internal tides do not contribute significantly to the variance. Consequently, the tidal currents do not change substantially (plus or minus 25%) over the course of a year and the temperature fluctuations are caused by horizontal advection of the mean thermal gradients. Estimates of energy flux onto the shelf revealed that energy propagates at an angle oblique to the wave crests. The dissipation of tidal energy occurs primarily near shore (depth <50 m), where the quadratic drag law for bottom friction with drag coefficient y = 0.002 underestimates the observed dissipation rate. The energy loss over the mid-shelf region is small and consistent with a drag coefficient of 0.002. A one-dimensional model was developed to predict tidal sea level and current amplitudes across the shelf. The model requires only the coastal sea level and the cross-shelf topography. Results of the model are consistent with the observed tidal coefficients.

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ACC 4261; TYPE P; YEAR 1979
KOBLINSKY, C.J.;
TIDES ON THE WEST FLORIDA SHELF.

BIBL PH.D. THESIS. OREGON STATE UNIVERSITY.

KEYWORD: tide, currents, depth, circulation, physical oceanography

ABSTRACT: 4153

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ACC 2110; TYPE P; YEAR 1976
KOENIG, C.C.; LIVINGSTON, R.J.; CRIPE, C.R.;
LUE CRA MORTALITY: INTERACTION OF TEMPERATURE AND DDT RESIDUES.

BIBL ARCH. ENVIR. CONTAM. TOXICOL. 4:119-128.

KEYWORD: blue crab, decapod, temperature, mortality, stress, pesticide

ABSTRACT: Serial observations of DDT-contaminated and uncontaminated waters in the northern Gulf of Mexico were made. Blue crab mortalities observed in the DDT-contaminated marsh during the period were correlated with reduced daily temperature minima. Gas chromarographic analysis of hepatopancreas and swimmeret muscle tissues of dead and dying crabs revealed total DDT residue concentrations as high as 39.0 ppm and 1.43 ppm, respectively. It was suggested that the DDT body burdens and reduced temperatures interact to produce acute toxic effects. Several physiological and behavioral mechanisms were proposed.

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ACC 4079; TYPE P; YEAR 1980
KOHOUT, F.A.; MUNSON, R.C.; TURNER, R.M.; ROYAL, W.R.;
SATELLITE O SERVATIONS OF A GEOTHERMAL SU MARINE SPRING OFF FLORIDA WEST COAST.

IN: M. DUETSCH, D.R. WIESNET, AND A. RANGO, EDS. SATELLITE HYDROLOGY.

BIBL AMERICAN WATER RESOURCES ASSOCIATION. P. 570-578.

KEYWORD: geology, Landsat, red tide, hydrography, sediment, remote sensing, hole, satellite, geothermal

ABSTRACT: A geothermal submarine spring location 19 km (12 miles) off the southwest shore of Florida has been recognized by thermal infrared and Landsat imagery. The location of the spring was roughly known from reports of fishermen. As part of research on remote sensing of hydrologic phenomena, an overflight was made by NASA aircraft equipped with a thermal infrared scanner in 1966. A sea surface temperature anomaly was discovered suggesting that the upwelling ground water was warmer than the ambient temperature of the surrounding sea water (about 68 degrees F, 20 degrees C). Ground truth investigation showed that the discharging ground water had a temperature of 96.6 degress F (36 degress C) and the same salinity as normal sea water; it was emerging from a sink like depression about 200 ft (60 m) in diameter at a depth of 63 ft (19 m) below sea level. Anomalies have since been found on Landsat MSS bands 4, 5, and 6 that correlated with the fact that the spring ephemerally throws up a turbidity plume that spreads laterally over the sea surface as much as a kilometer in diameter. This apparently correlates with the name "The Mud Hole" given to the spring by local fishermen. Turbudity plumes at three other locations in Landsat imagery indicate the upwelling phenomena is widespread and might be involved in triggering Red Tide plankton blooms that occur in this area.

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ACC 4194; TYPE P; YEAR 1976
KOONS, C.B.; MCAULIFFE, C.D.; WEISS, F.T.;
ENVIRONMENTAL ASPECTS OF PRODUCED WATERS FROM OIL AND GAS EXTRACTION OPERATIONS IN OFFSHORE AND COASTAL WATERS.

BIBL PROC. ANNU. OFFSHORE TECHNOL. CONF. 8(1):247-257.

KEYWORD: produced water, pollution, offshore drilling

ABSTRACT: Not available.

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ACC 2511; TYPE K; YEAR 1976
KRANTZ, G.E.; NORRIS, J.P.;
CULTURE OF PINK SHRIMP, PENAEUS DUORARUM AT THE TURKEY POINT EXPERIMENTAL MARICULTURE LA ORATORY.

BIBL UNIV. MIAMI SEA GRANT TECH. BULL. NO. 36, 36 P.

KEYWORD: Dade, pink shrimp, mariculture

ABSTRACT: Data from over 45 production hatchery culture attempts and from 49 pond "grow-out" studies were analyzed to determine biological and economic feasibility of growing pink shrimp in Florida. Growth of post larval pink shrimp in ponds to a desirable market size required several months more than other species of shrimp and survival in over 22% of the ponds was less than 30%. Growth, individual size, and biomass of the shrimp was evaluated. Cost analysis indicated research areas which could substantially reduce the total market place.

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ACC 2119; TYPE U; YEAR 1977
KRITZLER, H.;
ESTIMATION OF IOMASS OF ENTHIC INVERTE RATE MACROFAUNA AND IDENTIFICATION OF POLYCHAETOUS ANNELIDS FOR THE LM MAFLA EXTENDED ASELINE AND MONITORING STUDY (1975B76).UNPU L. REPT. U.S. DEPT. OF INT., LM, WASHINGTON, DC. 39 P. + APPENDIX

BIBL

KEYWORD: biomass, polychaete, assemblage, depth, diversity, MAFLA

ABSTRACT: This report presents partial results of the biomass and polychaete study of the Bureau of Land Management sponsored program in Mississippi, Alabama, Florida (MAFLA) outer continental shelf. The author summarizes his findings as follows: Homogeneity of sampled polyohaete assemblages appeared consistent with evaluation of representativeness (as number of replicates per sample) which was considered inadequate for 17 of 27 samples collected in July 1975. No consistent correlation between biomass and depth was seen. At most stations high polychaete diversity could be correlated with widespread distribution of fine sediment, in itself an indicator of environmental stability. Five types of significantly associated polychaete species groups were detected, affording a basis for classifying the stations. The existence of more than one distinct polychaete assemblage, correlated with the general character of the sediments was demonstrated at some stations.

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ACC 2267; TYPE P; YEAR 1977
KRUER, C.R.;
A STUDY OF THE ENTHIC ALGAE OF THE NATURAL REEFS OFF TAMPA AY, FLORIDA GULF COAST.

BIBL MASTER'S THESIS. UNIVERSITY SOUTH FLORIDA, TAMPA, FL.

KEYWORD: benthic, algae, seasonality, distribution, temperature, turbidity, reef, coral

ABSTRACT: A total of 149 taxa of benthic marine algae including 37 Chlorophyta, 1 Chrysophyta, 18 Phaeophyta, 83 Rhodophyta, and 10 Cyanophyta were collected on or near to rocky outcroppings offshore from Tampa Bay, Florida. Five species and a possible sixth were new distributional records for the Gulf of Mexico, and 8 were range extensions into central west Florida and the eastern Gulf. The species composition, seasonality, and zonation of this flora as well as the effects of grazing on its distribution on the reefs were discussed. Physical factors which may influence the seasonality and distribution of the algae were presented and compared to other areas. The economic value of these reefs to the west coast of Florida was discussed relative to the commercial and recreational fisheries that are dependent upon the reefs.

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ACC 2198; TYPE P; YEAR 1981
KULCZYCKI, G.R.; VIRNSTEIN, R.W.; NELSON, W.G.;
THE RELATIONSHIP ETWEEN FISH A UNDANCE AND ALGAL IOMASS IN A SEAGRASS DRIFT ALGAE COMMUNITY.

BIBL ESTUAR. COAST. MAR. SCI. 12(3):341-348.

KEYWORD: fish, abundance, biomass, drift algae, seagrass

ABSTRACT: Monthly drop net samples and 18 daily seine collections from a seagrass bed in Indian River, Florida indicated that abundances of both the code goby Gobiosoma robustum and the Gulf pipefish Syngnathus scovelli increased with increases in drift algae biomass. It is suggested that this relationship is due to the increased effectiveness of drift algae as a food source and refuge from predators.

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ACC 510; TYPE ; YEAR 1970
KUPPER, D.H.;
THE GEOLOGY AND TECHNOLOGY OF GULF COAST SHELF.

BIBL LOUISIANA STATE UNIVERSITY, SCHOOL OF GEOSCIENCE, MISCELLANEOUS PUBLICATION 70(2):1-118.

KEYWORD: continental shelf, geology, resource, oil, sediment, tectonic

ABSTRACT: Not available.

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ACC 4080; TYPE P; YEAR 1979
KUSHLAN, J.A.; BAUMAN, M.C.; MCEWAN, L.C.;
A I LIOGRAPHY OF SOUTH FLORIDA WADING IRDS.

BIBL U.S. NATIONAL PARK SERVICE, SOUTH FLORIDA RESEARCH CENTER, HOMESTEAD, FL. REP. T-514. 20 P.

KEYWORD: bird, biology, coastal, distribution, ecology, bibliography, aves

ABSTRACT: The bibliography includes published reports concerning ciconiiform wading birds in south Florida. The geographic range extends from Lake Okeechobee through the lower Florida Keys. Those species of wading birds that have been reported in this area include: Wood Stork (Mycteria americana), White Ibis (Eudocimus albus), Scarlet Ibis (Eudocimus ruber), Glossy Ibis (Plegadis falcinellus), White-faced Ibis (Plegadis chihi), Roseate Spoonbill (Ajaia ajaja), Cattle Egret (Bubulcus ibis), Green Heron (Butorides virescens), Little Blue Heron (Florida caerulea), Louisiana Heron (Hydranassa tricolor), Snowy Egret (Egretta thula), Reddish Egret (Dichromanassa rufescens), Great Egret (Casmerodius albus), Great Blue Heron (Ardea herodias) and its white color morph, the Great White Heron (Ardea herodias occidentalis), Black-crowned Night Heron (Nycticorax), Yellow-crowned Night Heron (Nyctanassa violacea), American Bittern (Botarus lentiginosus), Least Bittern (Ixobrychus exilis) and the American Flamingo (Phoenicopterus ruber). Although a bibliography of these species can probably never be exhaustive, we hope that it is sufficiently complete to be useful to those engaged in research and conservation of these birds. The publications on this list unfortunately do not represent all that is known about south Florida wading birds. Much information exists only in personal notes or institutional files, particularly those of the National Park Service and National Audubon Society.

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ACC 767; TYPE; YEAR 1966
KUTKUHN, J.H.;
THE ROLE OF ESTUARIES IN THE DEVELOPMENT AND PERPETUATION OF COMMERCIAL SHRIMP RESOURCES.

IN: R.F. SMITH, A.H. SWARTZ, AND W.H. MASSMAN, EDS. A SYMPOSIUM ON ESTUARINE FISHERIES. P. 16-36.

BIBL AM. FISH. SOC. SPEC. PUBL. 3.

KEYWORD: biology, commercial fishery, life history, shrimp, species composition, migration, shrimp fishery, estuary

ABSTRACT: This report summarizes knowledge concerning functional relationships between the estuarine environment and commercial shrimp resources. Discussion is largely restricted to North America species, especially the rapidly developing Gulf coast.

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ACC 2343; TYPE P; YEAR 1966
KUTKUHN, J.H.;
DYNAMICS OF A PENAEID SHRIMP POPULATION AND MANAGEMENT IMPLICATIONS.

BIBL FISH. BULL. 65(2):313-338.

KEYWORD: Lee, growth, mortality, pink shrimp, fishery

ABSTRACT: The interaction of population growth and mortality of a stock of pink shrimp was critically analyzed. Estimates of the populations involved were secured through a mark-recapture experiment. It was questioned whether or not the fishery's production could be improved by postponing the start of fishing until the shrimp reach a size greater than 70 headless count designation now generally viewed as a practicable minimum. It was also noted that expected population growth, although relatively high would be insufficient to offset substantial losses due to expected natural mortality. Maximum potential yield in both weight and value can be obtained with the minimum acceptable size regulation that the fishery currently imposes.

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ACC 423; TYPE ; YEAR 1973
LACKEY, J.B.; DUNCAN, T.W.; FOX, J.L.; MARKEY, J.W.; SULLIVAN, J.H;
A STUDY OF THE EFFECTS OF MAINTENANCE DREDGING IN MOBILE BAY, ALABAMA ON SELECTED BIOLOGICAL PARAMETERS.

BIBL WATER AND AIR RESEARCH, GAINESVILLE, FL. 54 PP.

KEYWORD: bacteria, benthic community, biology, dredging, hydrography, plankton, turbidity, suspended, sediment

ABSTRACT: Not available.

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ACC 1100; TYPE ; YEAR 1974
LANDRY, G.C.;
ANALYSIS OF CERTAIN ASPECTS OF SEAWATER FOAM.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 62 PP.

KEYWORD: lignin, pH, water quality, chlorine compounds

ABSTRACT: Weekly measurements of lignin, pH, chloride and sea foam tendency and stability were made at 11 stations in Perdido and Blackwater Bays, Florida from July to December, 1972. The purpose of the study was to describe the effects of pulp mill effluent on sea foam.

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ACC 4081; TYPE P; YEAR 1980
LANDRU, P.D.; PROCHASKA, F.J.;
THE FLORIDA COMMERCIAL BLUE CRAB INDUSTRY: LANDINGS, PRICES AND RESOURCE PRODUCTIVITY.

BIBL FLORIDA SEA GRANT REP. NO. 34:1-51.

KEYWORD: biology, crustacea, blue crab, socioeconomic, landings (pounds), landings (value), commercial fishery

ABSTRACT: Blue crab production in Florida ranked third in the U.S. in 1975 with an annual volume of approximately 17 million pounds and a value of $2.2 million. Dockside prices have historically been higher for the total U.S. blue crab fishery, especially from 1971 to 1977. In terms of value the blue crab fishery in Florida has been a growing industry worth over 1 million annually at dockside since 1959. However, total Florida landings, cycline approximately every five years, have been on an overall declining trend since 1964. Increases in dockside prices have more than compensated for the overall decline volume. Price per pound increased 115 percent on the east coast and 123 percent on the west coast since 1970. Productivity in terms of the volume of blue crabs landed per fisherman showed an overall increase from 1970. Number of fishermen decreased at a faster rate than volume of blue crabs landed. Both coasts show similar overall upward trends in productivity per fisherman. Productivity per trap decreased since 1962 but number of traps fished per fisherman increased enough to offset the declining catch per trap. Gross monetary returns to fishermen on both coasts increased rapidly due to increased dockside prices and increased productivity per fisherman since 1970. In summary, total blue crab production in Florida declined on both coasts during the last several years. The number of fishermen, firms and traps have also declined. However, productivity per fisherman on both coasts increased during this time period. The reduction in number of fishermen was greater than the reduction in volume landed.

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ACC 2224; TYPE P; YEAR 1957
LAPINSKI, W.J.;
THE DISTRIBUTION OF FORAMINIFERA OFF PART OF THE FLORIDA PANHANDLE COAST.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: foraminifera, distribution, sediment, grain size, temperature, salinity, depth

ABSTRACT: The distribution of foraminiferal fauna in the shallow water beyond the barrier islands south of Carrabelle, Florida was studied and found to be composed of typically open Gulf species. No correlation was found between the distribution of the benthonic foraminfera and the factors of temperature, salinity and depth. The total number of benthonic foraminifera in one gram of sediment was found to be greater in areas where the median grain size is generally less than 0.2 mm and where limestone crops out or is covered by only a very thin veneer of sediment. These relationships were believed to be the results of an increased food supply in these areas. With the exception of three arenaceous species, the median grain size was found to have no consistent effect on the distribution of the most common species of benthonic foraminifera.

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ACC 2111; TYPE U; YEAR 1977
LAROCK, P.A.;
ADENOSINE TRIPHOSPHATE (ATP) IN THE MAFLA TRACT AREA (1975-76). UNPUBLREPT. U.S. DEPT. OF INT., BLM, WASHINGTON, DC. 35 P.

BIBL

KEYWORD: sediment, seasonal, grain size, organic carbon, water column, ATP, MAFLA

ABSTRACT: This report presents the results of the sediment ATP study of the Bureau of Land Management sponsored program in the Mississippi, Alabama, Florida (MAFLA) outer continental shelf. The author summarized the significant findings of the study as follows: 1) This work indicates that the ATP method can be used to effectively characterize the sediment microbes and quantify seasonal and environmental variables. 2) Sediment ATP concentrations exhibit seasonal variations with the greatest concentrations encountered in the early fall (September) with decreasing amounts found in the winter (January) and the least present in the early summer (June). 3) ATP content of sediments is directly proportional to the mean grain size distribution. ATP was found to increase as the grain size increased. 4) In the MAFLA tract area, Transects I, II, III and IV (West Florida Shelf) are similar in their ATP-grain size relationship. 5) Transect V (Northwest Florida Shelf) showed no relationship to grain size, and organic carbon. In fact, stations of this transect appear to be independent of all of the parameters measured and might possibly be governed by the overlying water column. It is known that a gyre does split off from the eastward flow from the Mississippi and move northward over Transect V. 6) Transect VI (Mississippi-Alabama Shelf) is highly variable, and has a region of greatly elevated ATP concentrations, and showed marked variation over the year. It is suggested that Mobile Bay exerts significant influence over this portion of the transect. 7) Organic carbon was found to exhibit an inverse relationship to ATP. As the organic ...

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ACC 2435; TYPE P; YEAR 1984
LARSON, D.K.; RAMUS, A.P.;
DISTRIBUTION OF CARIDEAN SHRIMP (DECAPODA; NATANTIS; CARIDEA) IN THE SHALLOW WATERS OF WESTERN FLORIDA BAY.

BIBL FLA. SCI. 47(SUPPL. 1):20.

KEYWORD: Monroe, distribution, shrimp, seagrass

ABSTRACT: Caridean shrimp were collected from M2 quadraats in shallow seagrass habitat bordering mangrove islands of Johnson Key Basin since November 1983. Species richness, distribution and abundance were determined. Thor floidanus, Hippolyte pleurocanthus and Palaemonetes intermedius were the dominants of the six species collected. Tozema carolinense were observed to increase at offshore sites dominated by Thalassia testudinum. Preliminary results indicate the greatest species richness and peak abundance (as high as 322 shrimp/sq. meter) occur at the Halodule wrihgtii and Thalassia transition zone.

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ACC 61; TYPE ; YEAR 1983
LASSUY, D.R.;
SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS (GULF OF MEXICO) - GULF MENHADEN.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS- 82/11.2. 13 PP.

KEYWORD: biology, coastal zone, continental shelf, ecology, fishery, life history, fish, pelagic fish

ABSTRACT: Not available.

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ACC 62; TYPE ; YEAR 1983
LASSUY, D.R.;
SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS (GULF OF MEXICO) - SPOTTED SEA TROUT.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-82/11.4. 14 PP.

KEYWORD: biology, coastal zone, continental shelf, ecology, fishery, life history, sea trout, fish, pelagic fish

ABSTRACT: Not available.

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ACC 63; TYPE ; YEAR 1983
LASSUY, D.R.;
SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS (GULF OF MEXICO) - ATLANTIC CROAKER.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-82/11.3.

KEYWORD: biology, coastal zone, continental shelf, ecology, fishery, life history, fish

ABSTRACT: Not available.

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ACC 64; TYPE ; YEAR 1983
LASSUY, D.R.;
SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS (GULF OF MEXICO) - BROWN SHRIMP.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-82/11.1. 15 PP.

KEYWORD: biology, coastal zone, continental shelf, ecology, fishery, life history, brown shrimp, shrimp, shrimp fishery

ABSTRACT: This series of profiles about coastal aquatic species of commercial, sport, and/or ecological significance is being jointly developed and funded by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service. It is designed to provide coastal managers, engineers, and field biologists with an introduction to the subject species and a synopsis of the information necessary to relate expected changes (associated with coastal development) in the physiochemical characteristics of estuaries to changes in these selected biological populations. Each profile includes brief sections on taxonomy and identification followed by a narrative of life history, environmental requirements, ecological role, and (where applicable) the fishery of the subject species. A three-ring binder is used for this series to facilitate additions as new profiles are prepared.

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ACC 2225; TYPE P; YEAR 1976
LAUGHLIN, R.A.;
FIELD AND LABORATORY AVOIDANCE REACTIONS OF BLUE CRABS (CALLINECTES SAPIDUS) TO STORMWATER RUNOFF.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE. FL. 102 P.

KEYWORD: blue crab, temperature, salinity, DO, turbidity, river discharge, behavior

ABSTRACT: Avoidance responses of blue crabs (Callinectes sapidus) to stormwater runoff were investigated in laboratory and field conditions in Apalachicola Bay, Florida. Laboratory experiments demonstrated significant avoidance of crabs to acidic runoff and experimentally-reduced pH test water. In the field, large crabs were absent from acidic runoff areas, but small crabs were abundant. Factors other than pH were believed to partially regulate field distribution of blue crabs.

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ACC 2226; TYPE P; YEAR 1978
LAUTHLIN, R.A.; CRIPE, C.R.; LIVINGSTON, R.J.;
FIELD AND LABORATORY AVOIDANCE REACTIONS BY BLUE CRABS (CALLINECTES SAPIDUS) TO STORMWATER RUNOFF.

BIBL TRANS. AM. FISH. SOC. 107:78-86.

KEYWORD: blue crab, temperature, salinity, DO, turbidity, river discharge, behavior

ABSTRACT: Avoidance responses of blue crabs (Callinectes sapidus) to stormwater runoff were investigated in laboratory and field conditions in Apalachicola Bay, Florida. Laboratory experiments demonstrated significant avoidance of crabs to acidic runoff and experimentally-reduced pH test water. In the field, large crabs were absent from acidic runoff areas, but small crabs were abundant. Factors other than pH were believed to partially regulate field distribution of blue crabs.

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ACC 2268; TYPE P; YEAR 1983
LAWRENCE, J.M.;
ABSORPTION OF NUTRIENTS OF THE CORAL POCILLOPORA DAMICORNIS (L.) BY THE ECHINOID EUCIDARIS THOUARSII (VAL.).

BIBL FLA. SCI. 46(SUPPL. 1):20-21.

KEYWORD: nutrient, coral, echinodermata, reef

ABSTRACT: The absorption efficiencies, levels, and rates for the echinoid, Eucidaris thouarsii, and the coral, Pocillopora damicornis, are given for carbohydrates, proteins, and lipids. Although the efficiency of digestion absorption of organic constituents of the coral ingested is high, E. thouarsii must consume relatively large quantities of the coral to meet its nutritional requirements.

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ACC 4082; TYPE U; YEAR 1977
LEAK, J C.;
DISTRIBUTION AND ABUNDANCE OF CARANGIDAE (PISCES, PERCIFORMES) LARVAE IN THE EASTERN GULF OF MEXICO, 1971-1974.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 83 P.

KEYWORD: biology, fish, ichthyoplankton, recruitment, reproduction, seasonality, zooplankton, spawning area, distribution, water column, fish larvae

ABSTRACT: Larvae of the family Carangidae were studied from plankton collections made in 17 cruises to the eastern Gulf of Mexico from 1971 to 1974 to

determine distribution and abundance, to delineate spawning areas and seasons, and to study some aspects of early life histories. Decapterus punctatus was the most abundant carangid larva in the eastern Gulf of Mexico. Its mean abundance ranged from 2.0 larvae under 10 sq. meter of sea surface in February 1972 to 43.0 larvae under 10 sq. meter in September 1972. D. punctatus spawns year-round at surface temperatures of 20-30 degrees C, over the entire West Florida Shelf from May to November, but only south of 26 degrees N during January-February. During spring-summer it spawns primarily from nearshore to the 100 m isobath and during fall-winter primarily between the 30 m and 100 m isobaths. Larvae of Trachurus lathami, Chloroscombrus chrysurus, and Caranx spp. were seasonally abundant. T. lathami spawns from November to May at surface temperatures of 20-25 degrees C beyond the 30 m isobath, where its maximum mean abundance was 4.3 larvae under 10 m square in 1973. C. chrysurus spawns from May to November at surface temperatures of 24-30 degrees C within the 50 m isobath where its maximum mean abundance was 4.3 larvae under 10 sq. meters in August 1971. Caranx spp. larvae occurred beyond the 50 m isobath year-round where its maximum mean abundance was 3.1 larvae under 10 sq. meters in June-July 1973. Larvae and juveniles of Caranx crysos, Caranx hippos or latus, Caranx bartholomaei, Elagatis bipinnulata, Vomer setapinnis, Selene vomer, Alectis crinitus, Oligoplites saurus, ...

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ACC 2112; TYPE P; YEAR 1980
LEE, W.Y.; MORRIS, A. & BOATWRIGHT, D.;
MEXICAN OIL SPILL: A TOXICITY STUDY OF OIL ACCOMMODATED IN SEA WATER ON MARINE INVERTEBRATES.

BIBL MAR. POLL. BULL. 11(8):231-234.

KEYWORD: oil spill, invertebrate, zooplankton

ABSTRACT: The blowout of the Mexican Ixtoc oil well on June 3, 1979, has resulted in the contamination of Texas coastal waters. Two series of laboratory experiments were carried out on the acute toxicity of oil accommodated in seawater (OAS) made from spilled Mexican oil. In one experiment, mixed natural zooplankton were immersed in the OAS for 96 hrs. A vital staining method was used to distinguish the dead from live individuals. In another experiment, a subtidal amphipod, Parhyale hamaiensis was exposed to the OAS for 1 week. Mortality was determined daily during the experiments. Results showed that even at concentrations of up to 40% OAS, the aged oil was not acutely toxic to the test invertebrate species.

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ACC 2239; TYPE P; YEAR 1971
LEFFLER, C.W.;
SOME TEMPERATURE EFFECTS ON GROWTH AND METABOLISM OF JUVENILE BLUE CRABS, CALLINECTES SAPIDUS (RATHBUN).

BIBL MASTER'S THESIS. UNIVERSITY OF FLORIDA, GAINESVILLE, FL. 54 P

KEYWORD: blue crab, temperature, salinity, growth, metabolism

ABSTRACT: Metabolic rate and blood osmolality was determined for juvenile blue crabs (Callinectes sapidsus) grown in the laboratory under various temperature/salinity conditions. Growth increased with temperature, and increase in size per molt was found to be lower at higher temperatures. Growth was not affected by salinities between 15 and 27 ppt. Blood osmolality of juvenile blue crabs was more closely associated with temperature than salinity. Results were applied to the effects of heated discharge from electrical generators on blue crabs living in the impacted area.

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ACC 2240; TYPE P; YEAR 1974
LEFFLER, C.W.;
IONIC AND OSMOTIC REGULATION, METABOLIC RESPONSE TO SALINITY, AND PHYSIOLOGICAL RESPONSE TO PESTICIDES OF JUVENILE CALLINECTES SAPIDUS RATHBUN.

BIBL PH.D. DISSERTATION. UNIVERSITY OF FLORIDA, GAINESVILLE, FL. 58 P

KEYWORD: salinity, blue crab, salinity, pesticide, metabolism, pollution

ABSTRACT: This two part study investigated the osmotic and ionic regulation and the metabolic response to salinity of juvenile Callinectes sapidus and the effects of ingested DDT and Mirex. Hemolymph sodium and chloride concentrations increased with increasing external concentrations. Internal K+ concentrations were always higher than external concentrations within the range tested. Juveniles were found to be metabolic regulators. The crabs are sensitive to DDT and Mirex with results showing metabolic rate elevations, reduction in critical oxygen concentration, inhibition of the autotomy reflex, and reduced carapace thickness.

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ACC 4324; TYPE P; YEAR 1977
LEVERSON, V.H.; SINCLAIR, P.C.; GOLDEN, J.H.;
WATERSPOUT WIND, TEMPERATURE, AND PRESSURE STRUCTURE DEDUCED FROM AIRCRAFT MEASUREMENTS.

BIBL MONTHLY WEATHER REVIEW, BOSTON 105(6):725-733.

KEYWORD: wind, pressure, meteorology

ABSTRACT: During Sept. 1974, in the Lower Florida Keys, the first successful penetration of mature waterspouts were accomplished by a specially instrumented research aircraft. Throughout the course of each penetration, the measurement system recorded the temperature, the pressure, and the three-dimensional velocity field near and within the visible funnel. Multiple penetrations of both cyclonic and anticyclonic

waterspouts in various life-cycle stages were achieved. The results indicate that the waterspout funnel structure exhibits 1) a warm central core region, 2) positive vertical velocities of 5-10 m sec.SUPER.SUPER 1 outside of the warm core, and 3) tangential velocities and horizontal pressure gradients with characteristics similar to, but with magnitudes greater than those of the dust devil. A scale analysis of each term in the governing equations of motion suggests a simplified set of modelling equations. The simple Rankine-combined vortex model with cyclostrophic flow explains approximately 75% of the total measured pressure deficit. This compares favorably with Sinclair's (1966, 1973) earlier result for the dust devil vortex.

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ACC 645; TYPE ; YEAR 1981
LEWIS, P.L.; SNYDER, C.;
HABITAT MITIGATION AND RESTORATION: A COASTAL MANAGER'S DILEMMA.

IN: J.R. KELLY, ED. SYMPOSIUM ON MISSISSIPPI SOUND. P. 39-43.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-81-007

KEYWORD: coastal zone, habitat, management, socioeconomic, wetland

ABSTRACT: Not available.

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ACC 2436; TYPE P; YEAR 1980
LEWIS, R.R.; PHILLIPS, R.C.;
EXPERIMENTAL SEAGRASS MITIGATION IN THE FLORIDA KEYS.

BIBL IN:. D.P. COLE (ED.) WETLANDS RESTORATION AND CREATION. PROC OF THE SEVENTH ANNUAL CONFERENCE, 1980 MAY 16-17, TAMPA, FL. 294 P.

KEYWORD: Monroe, seagrass

ABSTRACT: Plugs and short shoots of Thalassia testudinum, Halodule wrightii and Syringodium filiforme were transplanted at Craig Key and were monitored for two years. In addition, seeds of Thalassia were planted in the field and laboratory, and laboratory reared seedlings were moved to the site. Results of the project are presented.

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ACC 2512; TYPE P; YEAR 1952
LEWIS, J.B.; MOORE, H.B.; BABIS, W.;
THE POSTLARVAL STAGES OF THE SPINY LOBSTER, PANULIRUS ARGUS.

BIBL BULL. MAR. SCI. GULF CARIBB. 2(1):324-337.

KEYWORD: Dade, spiny lobster, life history, larvae

ABSTRACT: Postlarval stages of the spiny lobster found along the shore at Miami, Florida are identified as Panulirus argus. The first 11 postlarval stages are described from animals reared in the laboratory. Length measurements indicate that young lobsters of 17 mm attain an overall length of 50 mm during the first year.

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ACC 2298; TYPE P; YEAR 1975
LINCER, J.L.;
THE ECOLOGICAL STATUS OF DONA AND ROBERT'S BAYS AND ITS RELATIONSHIP TO COWPEN SLOUGH AND OTHER POSSIBLE PERTURBATIONS.

BIBL MOTE MARINE LABORATORY, SARASOTA, FL. FINAL REPT. TO BOARD OF COUNTY COMMISSIONERS, SARASOTA COUNTY. 264 P.

KEYWORD: Sarasota, hydrography, chemistry, suspended, chlorophyll, invertebrates, algae, diversity, turbidity, seagrass, temperature, DO, depth, redox

ABSTRACT: A study of Dona and Robert's Bays was conducted including the following parameters: hydrography, sedimentology, water chemistry, suspended solids, chlorophyll, and plankton, bacteria, aerial infrared and historic photography, pesticides, benthic invertebrates and plants (with emphasis on marine benthic algae). Species diversity of benthic invertebrates was shown to be directly correlated with salinity fluctuations. Freshwater runoff resulted in extremely low salinities and high suspended solids. The Intracoastal Waterway was also shown to provide an effective salinity buffer due to its contained volumes of seawater. It was determined that turbidity was caused, at least in part, by the lack of benthic seagrasses, which were absent due to wide fluctuations in salinity. The replacement of fringe plants (mangroves) by seawalls has also been a factor in the increased salinity.

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ACC 713; TYPE ; YEAR 1977
LINDALL, W.H.; SALOMAN, C.H.;
ALTERATION AND DESTRUCTION OF ESTUARIES AFFECTING FISHERY RESOURCES OF THE GULF OF MEXICO.

BIBL MAR. FISH. REV.

KEYWORD: biology, dredging, estuary, fishery, pollution

ABSTRACT: Both the commercial and recreational fishing industries of the Gulf of Mexico are overwhelmingly dependent on estuaries. About 90 percent of the commercial catch and 70 percent of the recreational catch are made up of species that are estuarine dependent. Man's alteration of estuaries is threatening these fishery resources. Data from recently published inventories of major natural and man-made estuarine features of the five gulf coastal states indicated that the total gulf estuarine area is 13,965,910 acres, including 7,891,611 acres of open-water area and 6,075,299 acres of emergent tidal vegetation. Submerged grass beds total 796,796 acres and live oyster beds amount to 158,611 acres. Major man-made alterations include 4,446 miles of federally maintained navigation channels, 138,458 acres of fill, and 795,609 acres closed to shell fishing because of pollution.

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ACC 2358; TYPE P; YEAR 1974
LINDALL, W.N., JR.; HALL, J.R.; FABLE, W.A., JR.; COLLINS, L.A.;
FISHES AND COMMERCIAL INVERTEBRATES OF THE NEARSHORE AND ESTUARINE ZONE BETWEEN CAPE ROMANO AND CAPE SABLE, FLORIDA

BIBL NTIS PB235-215.

KEYWORD: Collier, fish, benthic, invertebrate, salinity, temperature, DO, pink shrimp, blue crab, stone crab, fishery, commercial fishery

ABSTRACT: Quarterly samples of fish and benthic invertebrates were collected from the nearshore and estuarine zone between Cape Romano and Cape Sable, Florida, between May 1971 and February 1972. Six species of commercial invertebrates and 114 species of fish were collected with beach seine and otter trawl from 35 stations located in inland waters and to 10 miles in the Gulf of Mexico. Inshore stations exhibited higher yields than offshore stations A systematic account of all species is provided.

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ACC 2437; TYPE P; YEAR 1974
LINDBERG, S.E.; HARRISS, R.C.;
MERCURY-ORGANIC MATTER ASSOCIATIONS IN ESTUARINE SEDIMENT AND INTERSTITIAL WATER

BIBL ENVIR. SCI. TECHNOL. 8:459-462.

KEYWORD: Monroe, sediment, organic carbon, salinity, heavy metal, mercury

ABSTRACT: Significant associations between sediment Hg and sediment organic matter and between dissolved interstitial Hg and dissolved organic carbon were presented. Mercury in sediments and interstitial water occurs at higher concentrations in the Everglades than in Mobile Bay, which receives anthropogenic mercury effluents. When normalized to organic content of the sediment or dissolved organic carbon concentration in pore water, higher relative mercury concentrations were shown to occur in Mobile Bay.

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ACC 2438; TYPE P; YEAR 1977
LITTLE, E.J., JR.;
OBSERVATIONS ON RECRUITMENT OF POSTLARVAL SPINY LOBSTERS, PANULIRUS ARGUS, TO THE SOUTH FLORIDA COAST.

BIBL FLA. MAR. RES. PUBL. NO. 29, 35 P.

KEYWORD: spiny lobster, recruitment, fouling, salinity, temperature

ABSTRACT: Data on recruitment taken variously at several localities and an examination of natural fouling communities was summa[illegible]. Post larvae were collected during all months, but recruitment peaks were more frequent during spring and fall except in the lower Florida Keys where summer peaks were occasionally noted. Reduced salinity may have been a factor in recruitment decreases due to freshwater runoff. Most larvae were more abundant in nearshore shallow habitats than in deeper channels. It was suggested that the amount of light may exert an inhibitory effect upon recruitment, but that normal changes in temperature and salinities probably do not greatly affect recruitment magnitude.

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ACC 2439; TYPE P; YEAR 1980
LITTLE, E.J., JR.; MILANO, G.R.;
TECHNIQUES TO MONITOR RECRUITMENT OF POSTLARVAL SPINY LOBSTERS, PANULIRUS ARGUS, TO THE FLORIDA KEYS.

BIBL FLA. MAR. RES. PUBL. NO. 37. 16 P.

KEYWORD: Monroe, recruitment, spiny lobster, fouling, temperature, salinity

ABSTRACT: Monitoring recruitment of postlarval spiny lobster in the Florida Keys using floating artificial habitat collectors was most successful on collectors with at least two months accumulation of fouling organisms. Peak monthly settlement varied between new moon and first quarter periods. Sampling of two collectors at 2-3 day intervals was determined to sufficiently indicate peak recruitment and relative abundance at selected stations. Combinations of several sites depicted recruitment trends better than single sampling sites. Significantly greater recruitment of spiny lobsters occurred during spring. Abnormally high recruitment followed a dramatic temperature decrease (to ca. 12.5 degrees C) during January 1977; an unusually low recruitment during June 1978 was unexplained. Other decapod crustaceans associated with the artificial habitats had no obvious effect on spiny lobster settlement.

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ACC 4084; TYPE P; YEAR 1972
LITTLE, E.J., JR.;
TAGGING OF SPINY LOBSTERS (PANULIRUS ARGUS) IN THE FLORIDA KEYS, 1967-1969

BIBL FLA. DEPT. NAT. RES. SPEC. SCI. REP. NO. 31, 23 P.

KEYWORD: biology, crustacea, spiny lobster, tagging, commercial fishery

ABSTRACT: A total of 2,415 Panulirus argus were tagged with vinyl "spaghetti" tags between November 1967 and August 1969 in the Florida Keys and 118 (4.8%) were recovered. Movements were generally of ten miles or less, usually towards offshore reefs, and no long distance migratory patterns were evident. Growth rate was quite variable and was greatest in small spiny lobsters.

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ACC 349; TYPE ; YEAR 1974
LIVINGSTON, G.P.;
EXAMINATION OF THE RECURRENT SPECIES GROUPS AND ABUNDANCES OF THE CALANOIDCOPEPODA IN THE EPIPELAGIC WATERS OF THE GULF OF MEXICO.

BIBL MASTER'S THESIS. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 100 PP.

KEYWORD: zooplankton, crustacean

ABSTRACT: Fifty-six stations in the epipelagic waters of the Gulf of Mexico were examined for adult calanoid copepods. Ninety-six species representing 45 genera in 19 families were collected in February and March, 1967 during cruise 12 by the R/V Geronomo. Data include frequency of occurrence of each species at each station.

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ACC 752; TYPE ; YEAR 1976
LIVINGSTON, R.J.; KIBYLINSKI, G.J.; LEWIS, F.G. III; SHERIDAN P.F.;
LONG-TERM FLUCTUATIONS OF EPIBENTHIC FISH AND INVERTEBRATE POPULATIONS IN APALACHICOLA BAY, FL.

BIBL FISH. BULL. 74(2):311-321.

KEYWORD: invertebrata, benthic community, biology, ecology, fish, population

ABSTRACT: A 3-yr study was made concerning seasonal changes in the biota of Apalachicola Bay. The Apalachicola River causes a temporal progression of changes of various environmental parameters in the bay such as salinity, turbidity, nutrients, and detritus levels. Fishes were more widespread in their distribution throughout the bay than invertebrates. This was thought to be related to trophic response and habitat preference. High levels of relative dominance prevailed for both groups with the top three species of each group accounting for more than 80% of the total number of individuals taken. Peak levels of monthly abundance of various dominant fish species tended not to overlap through a given 12-mo. period. Invertebrate species abundance usually reached peak levels during summer and fall periods. The seasonal appearance and distribution of organisms in the Apalachicola Bay system was comparable to that found in other estuaries in the northern Gulf of Mexico. The temporal and spatial distribution of estuarine fishes and invertebrates was associated with species-specific reproductive cycles, trophic relationships, and habitat preferences. The Apalachicola estuary was viewed as a seasonally stable system, with regular temporal fluctuations of the biota through each annual cycle.

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ACC 888; TYPE ; YEAR 1972
LIVINGSTON, R.J.; ET AL.;
THE EFFECTS OF DREDGING AND EUTROPHICATION ON MULAT - MULATTO BAYOU.

BIBL FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL. RESEARCH NO. 111308016.

KEYWORD: chlorophyll, currents, demersal fish, dissolved oxygen, light attenuation, BOD, dredging, turbidity

ABSTRACT: The effects of dredging and eutrophication of Mulat - Mulatto Bayou, off Escambia Bay, Pensacola, Florida, on water quality and biological populations was studied jointly by Florida State University and the University of Western Florida from May 1971 to June 1972.

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ACC 2227; TYPE P; YEAR 1976
LIVINGSTON, R.J.; CRIPE, C.R.; LAUGHLIN, R.A.; LEWIS. F.G., III;
AVOIDANCE RESPONSES OF ESTUARINE ORGANISMS TO STORMWATER RUNOFF AND PULP MILL EFFLUENTS.

IN: ESTUARINE PROCESSES, VOL. 1. USES, STRESSES, AND ADAPTATION TO THE ESTUARY.

BIBL ACADEMIC PRESS, INC., NEW YORK. P. 313-331.

KEYWORD: blue crab, pollutant, river discharge, behavior, pollution, water quality, estuary

ABSTRACT: Laboratory experiments to test avoidance reactions of the blue crab (Callinectes sapidus) and pinfish (Lagodon rhomboides) to specific pollutants were correlated with field responses of these organisms to point sources of the pollutants in Apalachicola and Apalachee Bays. Juvenile and adult blue crabs avoid runoff stormwater with pH levels below 6.0 under laboratory conditions. In field studies, although adult crabs were not found in such affected areas, juveniles were actually more abundant in areas characterized by increased runoff and low pH. Pinfish demonstrated laboratory avoidance reactions to low concentrations of bleached kraft mill effluent (0.1% by volume), but did not exhibit expected field distributions. Factors other than avoidance response, such as interspecific and intraspecific competition, predation, and habitat alteration, were considered to contribute to field distributions of experimental organisms.

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ACC 4083; TYPE P; YEAR 1970
LEIPPER, D.F.;
A SEQUENCE OF CURRENT PATTERNS IN THE GULF OF MEXICO.

BIBL J. GEOPHYS. RES. 75:637-657.

KEYWORD: circulation, currents, hydrography, eddy formation, intrusion, loop current, physical, oceanography

ABSTRACT: The primary current in the Gulf of Mexico is in the form of a loop entering through the Yucatan Channel and eventually leaving through the Florida Straits. It usually transports more than 25 million cubic meters/sec of water at 50 to 200 cm/sec. Although it retains its basic characteristics along the line of flow, it is known to be highly variable in position. Little information on the exact nature of the variations is published. A series of eight cruises of about 2-weeks duration each was conducted by the author over a 30-month period in the different seasons. The primary current was crossed forty times. Five of these cruises supplemented by three others having somewhat differing objectives provided a series of eight cruises in one 16-month period beginning in July 1965. A reasonable sequence of current patterns for the primary current loop is indicated by the observations. The variations in pattern are compared with those indicated by data available from other time periods. The flow is well represented year-around by the topographies of 22 degrees C isothermal surfaces. This permits a simplified analysis and allows conclusions about the current systems to be drawn from cruises on which only limited data were collected. From July 1965 through December an eastward flow along the coast of Cuba strengthened and became the start of a "spring intrusion" into the gulf. By August 1966 the intrusion had reached 760 km across the Gulf and a "fall spreading" into the west gulf had begun. In July and August 1965 the northern end of the loop became a separate eddy, a detached exterior flow.

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ACC 4085; TYPE P; YEAR 1941
LONGLEY, W.H.; HILDEBRAND, S.F.;
SYSTEMATIC CATALOGUE OF THE FISHES OF TORTUGAS, FLORIDA.

BIBL PAPERS FROM THE TORTUGAS LABORATORY, CARNEGIE INSTITUTE, WASHINGTON, DC. (34):331 P.

KEYWORD: biology, demersal fish, pelagic fish, reef, ecology, systematic, reeffish, fishery

ABSTRACT: A systematic catalog of Tortugas fishes was assembled from twenty-five years of collections and observations. The investigations revealed several new genera and 29 new species. One hundred and six families were discussed. Important information pertaining to life history, color patterns and ecology of shallow water fishes resulted from underwater observations.

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ACC 165; TYPE ; YEAR 1982
LOPEZ, A.M.; PRISTAS, P.J.;
RECREATIONAL BILLFISH SURVEY NEWSLETTER -- OCEANIC GAMEFISH INVESTIGATIONS

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST FISHERIES CENTER, OCEAN PELAGICS TEAM, MIAMI, FL.

KEYWORD: billfish, biology, continental shelf, fishery, fishery statistics, pelagic fish, recreation, recreational fishery

ABSTRACT: The National Marine Fisheries Service's (NMFS) Miami Laboratory has been conducting surveys of recreational billfishing in the Gulf of Mexico since 1971 and in the Atlantic Ocean and Caribbean Sea since 1972. These surveys were initiated to monitor trends in billfish catch and effort as part of a commitment by the United States to participate in cooperative international investigations through the International Commission for Conservation of Atlantic Tunas (ICCAT), centered in Madrid, Spain. The ICCAT

is responsible for coordinating and guiding scientific investigations on stocks of tunas and tuna-like fishes, including billfishes, in the Atlantic Ocean and adjacent seas. Data collected through the NMFS surveys are used in population modeling and in annual assessments of the status of stocks of Atlantic billfishes, and these results are presented to the international scientific community at ICCAT each year. In addition to the annual monitoring of recreational billfishing throughout the Western North Atlantic, Caribbean Sea, and Gulf of Mexico, NMFS has initiated special surveys designed to determine the total catch of billfishes by U.S. recreational fishermen. One such survey was conducted in 1977 and 1978 and follow-up surveys were conducted in the Gulf of Mexico in 1981 and in the Atlantic, Caribbean Sea, and Gulf of Mexico in 1983. The recreational billfish surveys described in this newsletter are part of a larger research program conducted by the Miami Laboratory's Oceanic Pelagics Team.

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ACC 2243; TYPE P; YEAR 1975
LOWE, E.;
ABSORPTION EFFICIENCIES, FEEDING RATES AND FOOD PREFERENCES OF LYTECHINUS VARIEGATUS (ECHINODERMATA: ECHINOIDEA) FOR SELECTED MARINE PLANTS.

BIBL MASTER'S THESIS, UNIVERSITY SOUTH FLORIDA, TAMPA, FL.

KEYWORD: drift algae, echinoderm, feeding habit

ABSTRACT: A feeding study of the sea urchin, Lytechinus variegatus, revealed that itconsumes primarily substratum and various plant materials, particularly grass blade litter and drift algae. The absorption efficiencies of L. variegatus for various organic materials are summarized. The feeding rate of L. variegatus was found to be similar to that of other echinoids. It is considered a general list, selecting foods which are easily available and ingested.

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ACC 548; TYPE ; YEAR 1964
LUDWICK, J.C.;
SEDIMENTS IN NORTHEASTERN GULF OF MEXICO.

IN: R.L. MILLER, ED. PAPERS IN MARINE GEOLOGY. P. 204.238.

BIBL MACMILLAN COMPANY, NEW YORK, NY.

KEYWORD: continental shelf, distribution, geology, grain size

ABSTRACT: Investigators of continental shelf sediments in the northern Gulf of Mexico have concluded that changes in late Quaternary sea level have strongly influenced patterns and kinds of surficial sediments and fauna. The purpose of this paper is to describe and interpret the distribution pattern of modern surficial sediment deposits on the continental shelf and nearshore areas. Seafloor samples were taken along 11 sampling profiles from 1952 to 1954. Utilizing these cored and dredged samples a recent history of sedimentation is reconstructed.

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ACC 2360; TYPE P; YEAR 1975
LUGO, A.E.; EVINK, G.; BRINSON, M.M.; BRACE, A.; SNEDAKER, S.C.;
DIURNAL RATES OF PHOTOSYNTHESIS, RESPIRATION, AND TRANSPIRATION IN MANGROVE FORESTS OF SOUTH FLORIDA.

IN: TROPICAL ECOLOGICAL SYSTEMS, M.F.B. GOLLEY & E. MEDIA (EDS.)

BIBL SPRINGER-VERLAG, NEW YORK: 335-350.

KEYWORD: Collier, coastal, photosynthesis, primary productivity

ABSTRACT: The 4 Florida mangrove species, Rhizophora mangle, Avicennia nitida (germinans), Laguncularia racenosa, Conocarpus ereota were measured for carbon dioxide exchange and transpiration. Specimens were collected from Rookery Bay. Trees were divided into compartments and studied on a diurnal basis to identify magnitudes and possible zonation of photosynthesis, respiration, and transpiration rates. Results show that, in part, zonation is due to adaptations that take advantage of auxiliary energy sources thereby affecting respiration and transpiration rates.

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ACC 2359; TYPE P; YEAR 1974
LUGO, A.E.; SNEDAKER, S.C.;
PROPERTIES OF A MANGROVE FOREST IN SOUTHERN FLORIDA.

IN: THE BIOLOGY AND MANAGEMENT OF MANGROVES. G.E. WALSH, S.C. SNEDAKER & H.J. TEAS (EDS.). P. 170-212.

BIBL UNIVERSITY OF FLORIDA, GAINESVILLE, FL.

KEYWORD: Collier, physical, chemical, meterology, light, temperature, DO, salinity, flora

ABSTRACT: The ecology of a mangrove forest at Rookery Bay was studied from August 1971 to February 1973. Measurements were made of composition and growth of the vegetation, gas exchange, water flows, and the carbon budget. Many physical and chemical parameters were measured and correlated with the biological results. The forest was divided into 2 vegetation zones, the fringe and basin mangrove zones, according to physiological and morphological differences caused by environmental conditions.

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ACC 119; TYPE ; YEAR 1981
LUKENS, R.R.;
ICHTHYOFAUNA COLONIZATION OF A NEW ARTIFICIAL REEF IN THE NORTHERN GULF OF MEXICO.

BIBL GULF RES. REP. 7(1):41-46.

KEYWORD: artificial reef, biology, colonization, fish attraction, fish, ichthyofauna

ABSTRACT: Ichthyofaunal colonization of a new artificial reef was monitored from June 1975 through September 1977. Direct observations were accomplished using SCUBA. Theories of colonization and species equilibrium of islands and islandlike habitats were applied to the colonization data from the artificial reef. Sixty species of fishes from 33 families were recorded at the reef. Fifty-two percent of these species were primary reef fishes and 48% were secondary. Colonization data were produced only from the occurrence of primary reef fish. Data indicate that ichthyofaunal communities in the northern Gulf of Mexico are heavily influenced by seasonal changes in temperature, and that colonization by reef fish in that area does not conform to theories of immigration and extinction for island biotas. These results concur with similar work conducted on reef ichthyofauna in the eastern Gulf of Mexico.

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ACC 172; TYPE ; YEAR 1975
LUKENS, R.R.;
THE SUCCESSION OF ICHTHYOFAUNA ON A NEW ARTIFICIAL REEF IN THE NORTHERN GULF OF MEXICO.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-75-027.

KEYWORD: artificial reef, biology, fish, ichthyofauna, statistical analysis

ABSTRACT: A study was conducted from July, 1975, through October, 1977, to monitor the succession of ichthyofauna on a new artificial reef in the northern Gulf of Mexico. Sixty species of fish from 33 families were recorded at the study reef. The Shannon-Weiner species diversity index for the study ichthyofauna ranged from 0.407 to 0.937, exhibiting a positive correlation with seasonal changes in temperature. Values calculated for species richness, evenness, and dominance support the Shannon-Weiner index results. Fifty-four species from that site ranged from 0.000 to 0.809. No pattern of increase or correlation with seasons was indicated at the control. Again the Shannon-Weiner index results were supported by indices of species richness, evenness, and dominance. Fifty-eight percent of the species reported from the experimental reef were primary reef fish. The control site revealed only 15 percent of species in the primary reef fish group. Secondary reef fish were predominant at the control site with 48 percent. Colonization at the experimental reef was effected by decreasing water temperatures in winter periods causing several species of fish to be seasonally absent from the reef fauna. The majority of those species returned with the advent of warmer water temperatures. The colonization-decolonization rate curves inadequately illustrated true colonization and decolonization when recurrent species were given the same importance as new species. If recurrent species are not considered, the colonization-decolonization curves more accurately describe actual colonization and decolonization. The modified colonization rate curve conforms to..

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ACC 446; TYPE ; YEAR 1981
LUNZ, J.D.; HORSTMANN, H.L.;
ANIMAL SUBSTRATE RELATIONSHIPS AND PRODUCTIVITY OF INVERTEBRATE MACROBENTHOS OF MISSISSIPPI SOUND AND ADJACENT COASTAL AREAS; A BIBLIOGRAPHY WITH ABSTRACTS.

BIBL U.S. ARMY CORPS OF ENGINEERS, WATERWAYS EXPERIMENT STATION, VICKSBURG. MS MISCELLANEOUS PAPER EL-81-12.

KEYWORD: invertebrata, benthic community, bibliography, biology, ecology, productivity, substrate

ABSTRACT: Not available.

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ACC 795; TYPE ; YEAR 1982
LUNZ, J.D.; KENDALL, D.R.;
BENTHIC RESOURCES ASSESSMENT TECHNIQUE, A METHOD FOR QUANTIFYING THE EFFECTS OF BENTHIC COMMUNITY CHANGES ON FISH RESOURCES.

BIBL OCEANS, SEPTEMBER 1982: 1021-1027.

KEYWORD: invertebrata, benthic community, benthos, biology, statistics, resource, fish

ABSTRACT: Not available.

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ACC 2440; TYPE P; YEAR 1966
LYNTS, G.W.;
RELATIONSHIP OF SEDIMENT-SIZE DISTRIBUTION TO ECOLOGIC FACTORS IN BUTTONWOOD SOUND, FLORIDA BAY.

BIBL J. SEDIMENT. PETROL. 36:66-74.

KEYWORD: Monroe, sediment, depth, temperature, salinity

ABSTRACT: Some ecological factors in Buttonwood Sound were studied in relation to the sediment-size distribution. Physical/chemical factors studied included depth, pH, temperature, salinity and Eh. Statistical analysis show that ecological factors were not linearly related to sediment-size nor amongst themselves. Sediment distribution is largely related to turtle grass occurrence.

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ACC 2441; TYPE P; YEAR 1971
LYNTS, G.W.;
DISTRIBUTION AND MODEL STUDIES ON FORAMINIFERA LIVING IN BUTTONWOOD SOUND, FLORIDA BAY.

BIBL MIAMI GEOL. SOC. MEM. 1:73-115.

KEYWORD: Monroe, foraminifera, depth, temperature, salinity, sediment, grain size

ABSTRACT: Environmental factors influencing foraminiferal species distribution in Buttonwood Sound, Florida Bay, were investigated using 74 samples from 19 stations. Depth, temperature. salinity, pH and Eh were measured at the sediment water interface. The foraminifera was determined to be controlled by a complex interaction of physicochemioal and biologic factors, which was only partially revealed by the measured parameters.

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ACC 1086; TYPE ; YEAR 1974
LYON, J.M.; BAXTER, K.N.;
SAMPLE CATCHES OF PENAEID SHRIMP TAKEN BY TRAWLING IN THE NORTHWESTERN GULF OF MEXICO, 1961-1965.

BIBL NATIONAL MARINE FISHERIES SERVICE, DATA REPORT 83:1-51.

KEYWORD: biology, commercial fishery, fishery, shrimp fishery, shrimp

ABSTRACT: Not available.

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ACC 2114; TYPE P; YEAR 1980
LYONS, W.G.;
MOLLUSCAN COMMUNITIES OF THE WEST FLORIDA SHELF.

BIBL BULL. AM. MALACOL. UNION 1979(45):37-40.

KEYWORD: mollusc, hourglass, community, temperature, salinity, substrate, depth

ABSTRACT: The molluscan fauna of the west Florida shelf is characterized from the Dry Tortugas northward to Cape San Blas using data collected principally from the Hourglass Cruises. The inshore fauna varies from predominantly tropical Caribbean species in the south to warm.temperate continental species in the north. Several discernible communities are defined by temperature, salinity and substrate. Four vertical zones of faunal distribution have been differentiated seaward from the coastal estuaries: shoreward zones (0-10 m); shallow shelf (10-30 m); middle shelf (30.140 m); and outer shelf (140-200 m). The number of species, dominant molluscs and their supposed source are cited for each zone in addition to ambient abiotic parameters.

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ACC 2113; TYPE P; YEAR 1970
LYONS, W.G.;
SCYLLARID LOBSTERS (CRUSTACEA: DECAPODA).

BIBL MEMOIRS OF THE HOURGLASS CRUISES. VOL. I, PT. IV, FLORIDA DEPARTMENT NATURAL RESOURCES, MARINE RESEARCH LABORATORY. 74 P.

KEYWORD: crustacea, decapod, hourglass, currents, distribution

ABSTRACT: Five species of scyllarid lobsters were captured offshore Florida. Scyllarides nodifer occurred from the Gulf of Mexico to North Carolina and Bermuda in depths of 2 to 91 m. The Florida current and Gulf Stream were suggested to be responsible for prohibiting the distribution of larvae southward. Scyllarus americanus had been collected from the Gulf of Venezuela to North Carolina in depths of 0 to 4o m, and was common at some inshore locations off west Florida. Scyllarides aequinoctialis occurred throughout the Caribbean and northward to Bermuda, but only rarely in the Gulf of Mexico. Scyllaru chacei ranged from Brazil to North Carolina in 11 to 320 m of water. Adult Scyllarus depressus were known from southern Brazil to North Carolina in depths of 29 to 265 m, with postlarvae usually occurring farther south.

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ACC 2115; TYPE P; YEAR 1974
LYONS, W.G. & COLLARD, S.B.;
BENTHIC INVERTEBRATE COMMUNITIES OF THE EASTERN GULF OF MEXICO, IN: R E. SMITH (ED.) PROC. MAR. ENVIR. IMPLICATIONS OF OFFSHORE DRILLING IN THE EASTERN GULF OF MEXICO.

BIBL CONF./WORKSHOP STATE UNIV. SYST. FLA. INSTIT. OCEANOGR. ST. PETERSBURG, FLA., CONTRIB. NO. 233, FDNR/MRL P. 157-165.

KEYWORD: benthic, invertebrate, community, geological, hydrographic, continental slope, temperature, salinity, nutrient

ABSTRACT: A discussion was presented on the physical and biotic characteristics controlling composition of benthic invertebrate communities of the region. The communities were broken down into zones (geologic and hydrographic) and descriptions were presented. It was concluded that benthic invertebrates of the Eastern Gulf are a highly diverse group with several dissimilar zones of distribution ranging from the estuaries to the continental shelf.

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ACC 2169; TYPE P; YEAR 1981
LYONS, W.G.;
POSSIBLE SOURCES OF FLORIDA'S SPINY LOBSTER POPULATION.

BIBL PROC. GULF CARIBB. FISH. INST. 33:253-266.

KEYWORD: spiny lobster, fishery, recruitment, larval

ABSTRACT: The possible sources of Florida's lobster fishery was believed to be replenished by larvae recruited primarily from Caribbean spawning stocks, but some recent findings suggest that most recruitment may be directly from the spawn of the Florida population itself. However, Florida's year round larval recruitment cannot result from its 7 month (April-October) spawning period but may be derived from year round spawning of Caribbean populations. Abundance of larvae in transit from the Caribbean to south Florida via the Yucatan Channel during much of the year supports this hypothesis. Some contribution to recruitment by larvae spawned from the unfished Gulf of Mexico population is also probable. The author urged continued protection of Florida spiny lobsters by a closed season until irrefutable evidence indicates the population is derived from Caribbean stock.

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ACC 2442; TYPE P; YEAR 1981
LYONS, W.G.; BARBER, D.G.; FOSTER, S.M.; KENNEDY, F.S., JR.; MILANO, G.R.;
THE SPINY LOBSTER, PANULIRUS ARGUS, IN THE MIDDLE AND UPPER FLORIDA KEYS: POPULATION STRUCTURE, SEASONAL DYNAMICS, AND REPRODUCTION.

BIBL FLA. MAR. RES. PUBL. NO. 38, 38 P.

KEYWORD: Monroe, spiny lobster, abundance, distribution, spawning, fouling

ABSTRACT: Data on abundance, distribution, size, sex, mating, spawning, molting. incidence of fouling organisms, and injury rates were obtained from 19,180 spiny lobsters captured at 9 stations in the middle and upper Florida Keys fishery-area during April 1978 through March 1979. Mean and modal carapace length (CL) were approximately 73 mm, slightly less than legal size (76 mm). Lobster sizes averaged 65.6 mm CL at shallow (3 m) bay stations, increasing gradually to 80.1 mm CL at inhabited southern Florida Bay stations, then gradually migrated to nearshore oceanside Keys stations; lobsters in year class 3+ moved seaward at onset of maturity or declining water temperature (late fall-early winter). Information on seasonal trends in sizes, numbers, and location of captured lobsters is summarized. Legal sized lobsters comprised 43.2% of total catch, 90% of which were caught at oceanside stations. Data are presented concerning sex ratio, duration of spawning season, location of mating, and size and proportion of spawning females. Little or no fouling organisms were found on most lobsters. Molting individuals averaged only 1% of the total population, with a maximum molting frequency of 2.7% in April. Trends in rates of injuries are explained.

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ACC 2443; TYPE P; YEAR 1981
LYONS, W.G.; KENNEDY, F.S., JR.;
EFFECTS OF HARVEST TECHNIQUES ON SUBLEGAL SPINY LOBSTERS AND ON SUBSEQUENT FISHERY YIELD.

BIBL PROC. GULF CARIBB. FISH. INST. 33:290-300.

KEYWORD: Monroe, spiny lobster, fishery, mortality, temperature

ABSTRACT: To determine the effect of confining sublegal sized lobsters as attractants in lobster traps for extended durations, a total of 152 preweighed lobsters were caged in 40 traps (16 traps each containing 5 lobsters, 24 traps each containing 3 lobsters) for periods of up to 8 weeks. Two traps with 5 lobsters and 3 traps with 3 lobsters were removed from the field weekly and lobsters were in each of the 8 weekly test groups; average weight reduction was generally greater among those confined at 5 per trap than that of lobsters confined at 3 per trap. Trends of weight loss and mortality over the 8 week period are presented. Factors other than starvation, including handling, exposure, temperature, and predation are analyzed as potential causes of death. The impact on the fishery of using sublegal sized lobsters as bait is examined, and solutions to reduce fishery induced mortality are suggested.

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ACC 4086; TYPE U; YEAR 1982
LYONS, W.G.; CAMP, D.K.;
THE PRESENCE, LOCATIONS, AND SPECIES COMPOSITIONS OF ZONES OF FAUNAL SIMILARITY WITHIN THE HOURGLASS STUDY AREA, CENTRAL WEST FLORIDA SHELF. A REPORT FOR THE GOVERNOR OF THE STATE OF FLORIDA.

BIBL FLORIDA DEPARTMENT OF NATURAL RESOURCES, MARINE RESEARCH LABORATORY. ST. PETERSBURG, FL. 118 P.

KEYWORD: biology, epifauna, ecology, hourglass, demersal fish, zoogeography, invertebrate, continental shelf, community, fish

ABSTRACT: Taxa examined from collections taken during the Hourglass Cruises along two transects, each with 5 stations in depths of 6, 18, 37, 55, and 73 m, on the central West Florida Shelf were analyzed to discern zones of faunal similarity. The 221 species included 89 crustaceans, 52 fishes, 41 echinoderms, 20 stony corals, 17 mollusks, and 2 brachiopods. Eight Czekanoski indices were computed as follows: three qualitative (using 221, 142, and 53 spp.), two quantitative without logarithmic transformation of abundances (221, 142, and 53 spp.). Qualitative and log-transformed quantitative comparisons were each generally adequate to define faunal zones. However, severe elimination of species (by 76%) masked faunal differences in qualitative comparison. Quantitative comparisons using untransformed abundances were so sensitive to highly abundant species having a wide range of abundances between stations that local habitat differences were revealed, thereby masking broader zonal relationships. These comparisons were not suitable for determination of faunal zones. Three faunal zones involving stations at 6 m, 18.37 m, and 55.73 m were revealed. Locations of these zones were in general agreement with the Shoreward Zone, Shallow Shelf Zone, and Middle Shelf I Zone previously proposed in the literature. In the majority of comparisons, the fauna at a given station in a particular depth was indicated to be more similar to that at a distant station in the same depth than to other stations geographically closer but in greater or lesser depths.

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ACC 235; TYPE ; YEAR 1983
LYTLE, J.S.; LYTLE, T.F.;
POTENTIAL DAMAGE OF OIL WASTES IN COASTAL ESTUARY SEDIMENTS.

IN: PROCEEDINGS 1983 OIL SPILL CONFERENCE, FEBRUARY 28-MARCH 3, SAN ANTONIO, TX.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM. OCEAN SPRINGS, MS MASGP-82-024.

KEYWORD: chemistry, coastal water, oil, pollution, sediment, estuary, oil spill

ABSTRACT: Bayou Casotte, Mississippi, an estuarine waterway near the eastern end of Mississippi Sound, has been altered to accommodate an extensive industrial complex including a large oil refinery. Several small oil spill accidents recently occurred in the bayou; the most serious, on June 13, 1981, involved 600 barrels of asphaltic crude. The ecological effects of continued exposure to low level oily wastes were estimated by examining pollution levels in sediments both in 10-foot cores and surface samples. Petroleum hydrocarbons (PHC) and other hydrocarbons occur at levels as high as 12,300 micrograms per gram (ug/g or ppm to total hydrocarbons, dry weight) in surficial sediments and 1,000 ug/g at 120 centimeter sediment depths. Dredging operations have removed most polluted sediments very near the refinery site in the bayou, but dispersal of petroleum wastes has caused PHCs to be dominant pollutants in other regions where no dredging has occurred and where care is required if any dredging is permitted. Toxicological examination of sheepshead minnows, mysid shrimp and amphipods reveals significant mortalities to mysids from bioassay exposures to surficial sediments. Settling rate determinations, leachability, community structure vulnerability, and sediment disturbance probability are factors assimilated into an "environmental stress index" that indicates this to be a potentially harmful site to bottom feeders and, if sediments are disturbed, to free swimming organisms in sensitive life stages.

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ACC 449; TYPE ; YEAR 1979
LYTLE, J.S.; LYTLE, T.F.; GEARING, J.N.; GEARING, P.J.;
HYDROCARBONS IN BENTHIC ALGAE FROM THE EASTERN GULF OF MEXICO.

BIBL MAR. BIOL. 51:279-288.

KEYWORD: benthic flora, biology, chemistry, continental shelf, hydrocarbon, algae

ABSTRACT: Not available.

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ACC 462; TYPE ; YEAR 1979
LYTLE, T.F.; LYTLE, J.S.;
SEDIMENT HYDROCARBONS NEAR AN OIL RIG.

BIBL ESTUARINE COASTAL MAR. SCI. 9:319-330.

KEYWORD: chemistry, coastal water, exploration, hydrocarbon, oceanography, oil, pollution, sediment

ABSTRACT: Not available.

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ACC 464; TYPE ; YEAR 1976
LYTLE, T.F.; LYTLE, J.S.;
ASSESSMENT OF HYDROCARBON POLLUTANTS IN GULF AND ESTUARINE ENVIRONMENTS.

BIBL J. MISS. ACAD. SCI. 21:128-147.

KEYWORD: chemistry, continental shelf, crude oil, oil, pollution, estuary, hydrocarbon, aliphatic compounds, aromatic compounds

ABSTRACT: Not available.

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ACC 644; TYPE ; YEAR 1981
LYTLE, T.F.; LYTLE, J.S.;
MONITORING OF POLLUTANTS IN MISSISSIPPI COASTAL WATERS.

IN: J.R. KELLY, ED. SYMPOSIUM ON MISSISSIPPI SOUND. P. 29-38.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-81-007.

KEYWORD: biology, chemistry, pollution

ABSTRACT: Not available.

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ACC 2116; TYPE P; YEAR 1977
LYTLE, J.S. & LYTLE, T.F.;
HIGH MOLECULAR WEIGHT HYDROCARBONS IN MAFLA SEDIMENTS AND BENTHIC ALGAE AND RIG MONITORING SEDIMENTS. TECHNICAL REPORT. SUBMITTED TO BUREAU OF LAND MANAGEMENT, WASHINGTON, DC. (MAFLA-OCS PROGRAM).

BIBL

KEYWORD: hydrocarbon, algae, sediment, drilling, benthic

ABSTRACT: Sediments and algae were collected from the West Florida Shelf and analyzed for high molecular weight hydrocarbons. Sediment was also collected before, during and after operation of a drilling rig at various distances from the rig. Deep water station samples are comprised chiefly of terrestrial hydrocarbons. Of 36 specimens of benthic algae, 15 contain oil-like hydrocarbons. Gravimetric and gas chromatographic data and cluster analysis reveal only minimal changes caused by the drilling rig operation.

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ACC 2117; TYPE P; YEAR 1977
LYTLE, J.S.; LYTLE, T.F.;
SEDIMENT HYDROCARBONS AS ENVIRONMENTAL INDICATORS IN THE NORTHEAST GULF OF MEXICO.

IN: FATE AND EFFECTS OF PETROLEUM HYDROCARBONS IN MARINE ORGANISMS AND ECOSYSTEMS. D.A. WOLFE (ED.).

BIBL PERGAMON PRESS.

KEYWORD: sediment, hydrocarbon, seasonal, grain size, carbonate

ABSTRACT: Sediment samples were collected from 45 sites in the eastern Gulf of Mexico from Ft. Myers, Florida to Pensacola, Mississippi, [sic] and analyzed for hydrocarbons in a survey of man induced and seasonal effects on hydrocarbon levels. Three zones were distinguished by their aliphatic hydrocarbon distributions. Seasonal variation in hydrocarbon characteristics were minimal in all areas.

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ACC 2049; TYPE P; YEAR 1966
LINDER, M.J.;
WHAT WE KNOW ABOUT SHRIMP SIZE AND THE DRY TORTUGAS FISHERY.

BIBL PROC. GULF CARIBB. FISH. INST. 18:18-26.

KEYWORD: fishery, population dynamics, pink shrimp, socioeconomic, shrimp fishery

ABSTRACT: Analyses were made of the population dynamics of Penaeus duorarum in the Tortugas area and used in conjunction with information on the fishing industry to determine optimum shrimp size for harvesting in consideration of costs. Harvesting should occur at the 50-60 count level in order to least deplete the shrimp population while still maintaining maximum profits. Problems of how to harvest at this level are discussed as well as recommendations to shrimp fishermen.

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ACC 4163; TYPE P; YEAR 1986
MACIALELS, N.; GRASSLE, J.F.; BOEHM, P.D.; DADE, B., BROWN, B.; ET AL.;
STUDY OF BIOLOGICAL PROCESSES ON THE U.S. MID.ATLANTIC SLOPE AND RISE.

SECOND INTERIM REPT. SUBMITTED BY BATTELLE NEW ENG. MAR. RES. LAB. & WOODS HOLE OCEANOGRAPHIC INST. (CONTRACT #14-12-0001-30064).

BIBL PREPARED BY MINERALS MANAGEMENT SERVICE, VIENNA, VA.

KEYWORD: drilling, infauna, hydrocarbon, sediment, organic carbon, grain size, pollution

ABSTRACT: Samples collected on the first four of six cruises to the U.S. Mid-Atlantic as part of a study to evaluate potential effects of drilling have been analyzed for benthic infauna, hydrocarbons, sediment grain size, and total organic carbon, hydrogen and nitrogen. There is no evidence that the hydrocarbons in the sediments originate from sources associated with drilling activities. A very subtle change in the fauna at the drill site station in Block 372 was detected. Species diversity declined at Station 1 over time, but this trend is not statistically significant. The density of at least one dominant species was significantly lower in post-drilling samples compared to pre-drilling samples, but the density of this species was not significantly different at Station 1 compared to the majority of 2100 m stations for any sampling period. Thus, the changes seen at Station 1 are not considered to be a deleterious effect due to drilling. The results of the recolonization of azoic sediments deployed for six months or one year are discussed. Trays were deployed at two stations, Stations 2 and 4, which are positioned adjacent to and upcurrent of the drill site, respectively. Trays from both stations showed similar results after six months, but significantly different results after one year. However, the differences in the one-year trays are shown to be related to differences in the grain-size composition of sediments in the trays rather than to impacts of drilling activities.

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ACC 2118; TYPE P; YEAR 1982
MAHADEVAN, S.; ET AL.;
SOFT BOTTOM BIOLOGY, SOUTHWEST FLORIDA SHELF ECOSYSTEM STUDY. YEAR 01-DRAFT FINAL REPORT. SUBMITTED TO CONTINENTAL SHELF ASSOC. BY MOTE MARINE LABORATORY. SARASOTA, FLORIDA. 181 P.

BIBL

KEYWORD: epibiota, infauna, sediment, epifauna, biology, continental shelf

ABSTRACT: The epibiota and macroinfauna of the southwest Florida shelf were characterized to provide the Minerals Management Service with preliminary information for decisions on leasing activities and environmental stipulations. Areas of analysis include species composition, density, dominance, similarity, and sediment-infauna and epifauna-infauna relationships.

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ACC 2269; TYPE P; YEAR 1977
MAHADEVAN, S.; MURDOCH, J.D.;
A STUDY OF THE RECOVERY OF BENTHIC INFAUNA AT APOLLO BEACH EMBAYMENT FOLLOWING A SILT-SPILL AND SUBSEQUENT DREDGING.

BIBL A FINAL REPT. SUB. TO ENVIR. PLAN. DIV., TAMPA ELECTRIC CO. (TAMPA, FL) BY CONSERVATION CONSULTANTS, INC., R.D. GARRITY (ED.). 37 P.

KEYWORD: infauna, benthic, community, stress, dredging, crustacea, turbidity

ABSTRACT: A description of the benthic infauna studies at the Apollo Beach embayment was presented. A dredged site, an undredged site, and a control site were sampled following an accidental silt spill. Sampling was conducted once after dredging (clean-up) operations had ceased and once per year later in an attempt to evaluate the effects of silt spill and subsequent dredging. The 1976 sampling revealed that benthic communities at the dredged site were severely stressed. Follow-up sampling in 1977 showed that the dredged site had recovered to "normal" faunal conditions (similar to control site). Although low faunal density and the abundance of a pioneer species, Streblospio benedicti, indicated stressed conditions at the undredged (silted) site, these conditions appear to have resulted from natural population turnover patterns of the amphipod species, Ampelisca vadorum. Also, Ampelisca vadorum was the most dominant species at all three study sites, and therefore, no significant changes in the community are inferred due to the silt spill at the present time. A comparative analysis of silt-affected sites to the control site in April 1977 showed no significant differences in community structure between the sites. Therefore, environmental impact of the silt spill after one year is considered minimal.

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ACC 2270; TYPE P; YEAR 1976
MAHADEVAN, S.; CULTER, J.; HOOVER, S.; MURDOCH, J.; REEVES, F.; SCHULZE, R.;
A STUDY ON THE EFFECTS OF SILT-SPILL AND SUBSEQUENT DREDGING ON BENTHIC INFAUNA AT APOLLO BEACH EMBAYMENT.

BIBL A REPT. TO ENVIR. PLAN. DIV., TAMPA ELECT. CO. (TAMPA, FL), R.D. GARRITY AND W. J. TIFFANY, III (EDS.). 58 P.

KEYWORD: benthic, infauna, community, biomass, diversity, sediment, temperature, salinity, DO, stress, turbidity, dredging

ABSTRACT: A description of the benthic communities at the dredged and undredged areas affected by a silt spill at Apollo Beach was presented. Twenty-six species that were absent in the dredged and undredged areas were found at the control site. Capitella capitata, a pollution indicator species, was found in greater numbers at the undredged site, while

Streblospio benedicti, a pioneer species, was numerous at the dredged site. Oligomixity was more prevalent at the control and undredged sites. Faunal density and biomass were greatest at the control site and lowest at the dredged site. Species diversity and equitability were very similar (but low) at all three sites. Equitability, however, was highest at the dredged site. Based on a total community analysis, the dredged site was shown to be the most affected area, due to both the spill and subsequent dredging operations.

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ACC 2297; TYPE P; YEAR 1981
MAHADEVAN, S.; CULTER, J.K.; BLANCHET, R.E.; YARBROUGH, R.E.; MCCALLUM, G.;
A PRELIMINARY ASSESSMENT OF THE EFFECTS OF TREATED SEWER DISCHARGE ON THE BENTHIC INFAUNAL COMMUNITIES OF WHITAKER BAYOU AND ADJOINING SARASOTA BAY (SARASOTA, FLORIDA).

BIBL REPT. SUB. BY MOTE MAR. LAB., SARASOTA, FL TO COAST ZONE MANAGEMENT DEPT, SARASOTA CO., FL.

KEYWORD: Sarasota, infauna, sediment, diversity, pollution, temperature, salinity, DO, stress

ABSTRACT: A Study of the benthic macroinfauna and sediments was conducted in and near Whitaker Bayou (Sarasota, Florida) to provide a preliminary assessment on the ecological effects of wastewater discharged into Sarasota Bay. Species composition and community parameters such as faunal density, species richness, diversity and equitability indicated that Sarasota Bay soft-bottom bentos were generally similar to adjacent bays and the Gulf. A faunal similarity analysis indicated that open bay communities were homogeneous. Whitaker Bayou benthic infauna was strikingly different than the open bay communities and was characterized by a preponderance of pollution indicator species, low faunal density and extremely low species richness. Adverse effects caused by the discharges are inferred to be limited to Whitaker Bayou.

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ACC 2190; TYPE P; YEAR 1970
MAHOOD, R.K. ET AL.;
A REPORT ON THE COOPERATIVE BLUE CRAB STUDY--SOUTH ATLANTIC STATES.

BIBL U.S. BUR. COMM. FISH. 32 P.

KEYWORD: blue crab, population, temperature, DO, turbidity, mortality, pesticide

ABSTRACT: Blue crab populations were studied at 20 South Atlantic sampling stations to determine the cause of massive mortalities occurring between 1966 and 1968. Histopathological testing revealed that lethal levels of pathogens were not present. In the laboratory, salinity and temperature tolerance studies showed crabs to be less tolerant at low salinity, high temperature and high salinity, low temperature conditions. Toxicity studies determined DDT and Toxaphene were increasingly lethal at low salinities and at temperatures varying from 15 degrees Celsius. The relationship between environmental conditions and crab survival time and metabolic rates is shown. Hydrological data is also included. . . ulometry, organic carbon, nitrogen content, benthic surface metabolism, and microbial activity are summarized in addition to faunal biomass and density. It is concluded that the mid shelf benthos is generally impoverished due to sporadic and patchy nutrient inputs, while the shelf break and inner shelf benthos are enriched by nutrients from deep Gulf Stream intrusions and estuarine outwelling, respectively.

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ACC 2444; TYPE P; YEAR 1975
MANKER, J.P.;
DISTRIBUTION AND CONCENTRATION OF MERCURY, LEAD, COBALT, ZINC, AND CHROMIUM IN SUSPENDED PARTICLES AND BOTTOM SEDIMENTS--UPPER FLORIDA KEYS, FLORIDA BAY, AND BISCAYNE BAY.

BIBL PH.D. DISSERTATION. RICE UNIV., HOUSTON, TX. 114 P.

KEYWORD: Monroe, suspended, sediment, metal, seagrass, temperature, salinity, current, turbidity, wind, trace metal

ABSTRACT: Sediment samples from 39 stations in the upper Florida Keys, Florida Bay and Biscayne Bay, Florida were collected and analyzed for mercury, lead, cobalt, zinc, and chromium. The highest concentrations of toxic metals were found in the 4 um and suspended particulate fractions, and were correlated with areas of high population/human activity and with the Turkey Point nuclear power plant. Concentrations of lead and mercury in bottom sediments in certain areas were found to be approaching environmentally unacceptable levels. Seagrass and green algal populations were depleted in areas of maximum toxic metal concentrations.

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ACC 2445; TYPE P; YEAR 1971
MANKER, J.P.; GRIFFIN, G.M.;
SOURCE AND MIXING OF INSOLUBLE CLAY MINERALS IN A SHALLOW WATER CARBONATE ENVIRONMENT, FLORIDA BAY.

BIBL J. SEDIMENT. PET. 41(1):302-306.

KEYWORD: Monroe, carbonate, sediment, currents, distribution, mollusc, foraminifera, algae, temperature, salinity

ABSTRACT: Samples collected from Florida Bay and analyzed for sediment characteristics including clay minerals provide information on the depositional environment. Chlorite and smectite are the major

components of the clay size insoluble residue. Water currents are different in various areas of the bay and are responsible for differences in distribution and composition of sediments. Molluscs, foraminifera, and some green algae but not corals are responsible for some of the calcium carbonate particles in the sediment.

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ACC 4278; TYPE P; YEAR 1981
MANKIEWICZ, P.J.;
HYDROCARBON COMPOSITION OF SEDIMENTS, WATER, AND FAUNA IN SELECTED AREAS OF THE GULF OF MEXICO AND SOUTHERN CALIFORNIA MARINE ENVIRONMENT.

BIBL PH.D. THESIS. UNIV. CALIFORNIA, LOS ANGELES, CA.

KEYWORD: hydrocarbon, sediment, water column, feeding habit, biological, temperature, salinity, pollution

ABSTRACT: Sediments, water column and faunal samples from the southern California continental shelf and Gulf of Mexico were analyzed for their hydrocarbon content using high resolution gas chromatography and gas chromatography/mass spectrometry. Seawater and geographic variability of faunal analyses appeared to be governed by feeding habit and source composition whereas water column analyses indicated a consistent petroleum component with biological contributions varying with temperature and salinity. In southern California the dominant source of hydrocarbons in intertidal sediments is petroleum derived from seepage. However, in the offshore areas dated cores and surficial sediment analyses suggest that while seepage-sourced petroleum is present, the dominant source of hydrocarbons is combustion-derived air pollution.

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ACC 1072; TYPE ; YEAR 1973
MANN, K.H.;
SEAWEEDS: THEIR PRODUCTIVITY AND STRATEGY FOR GROWTH.

BIBL SCIENCE 182:975-981.

KEYWORD: biology, botany, flora, herbicide, macrophyte, marine, pesticide, pollution

ABSTRACT: Not available.

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ACC 2446; TYPE P; YEAR 1960
MANNING, R.B.;
SOME GROWTH CHANGES IN THE STONE CRAB, MENIPPE MERCENARIA (SAY).

BIBL QUART. J. FLA. ACAD. SCI. 23(4):273-277.

KEYWORD: Monroe, stone crab, growth

ABSTRACT: Morphological differences between juveniles and adults of Menippe mercenaria were investigated in specimens collected in Florida Bay. In juveniles the orbits are far apart, while in the adult they are close together. Juveniles differ from adults in not showing subdivisions of the submedian frontal lobes and the stridulating organ on the palm. The juvenile's lateral teeth are smoother and rounder, and coloration is dark. Juveniles do not form permanent burrows.

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ACC 4087; TYPE U; YEAR 1984
MANOOCH, C.S., III; MASON, D.L.;
AGE, GROWTH, AND MORTALITY OF LANE SNAPPER FROM SOUTHERN FLORIDA.

BIBL N.E. GULF SCI. 7(1):109-115.

KEYWORD: biology, commercial fishery, recreational fishery, reeffish, management, population dynamics, recruitment, snapper, mortality, growth

ABSTRACT: Rings on sectioned otoliths were used to determine ages of lane snapper, Lutjanus synagris, sampled from the south Florida headboat and commercial handline and trap fisheries. Rings were identified and counted on 76% of the otollths examined, and measurements were made on 61%. The oldest fish encountered was 10 years and 512 mm TL. Back-calculated mean lengths at annulus formation were 135, 196, 223. 261, 285, 310, 338, 367, 411 and 426 mm TL for age groups 1 to 10, respectively. The non Bertalaniffy equation describing theoretical growth was lt = 501(1.6 to the -0.1337(t+1.49)th). The length-weight relationship was W - 0.000102TL to the 2.6524th. The relationship of fork length to total length was TL = -2.6252 + 1.0891FL. Lane snapper were fully recruited to the hook-and-line fishery as 5 year old fish. A Beverton and Holt yield-per-recruit model suggests a maximum yield-per-recruit of 500 g when instantaneous fishing mortality was 0.5 and recruitment ages were 1.5 to 3.0 years.

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ACC 680; TYPE ; YEAR 1981
MAR. ENVIRON. SCI. CONSORTIUM; SOUTH ALABAMA REG. PLAN COUNCIL;
TRANSPORTATION OF OIL AND GAS IN THE COASTAL AREA OF THE STATE OF ALABAMA - GENERAL ADVISORY INFORMATION - EMPHASIS ON LOCATION OF PIPELINES.

BIBL BUREAU OF LAND MANAGEMENT, GULF OF MEXICO OCS REGIONAL OFFICE, NEW ORLEANS, LA. 14 P.

KEYWORD: coastal zone, gas, management, oil transport, oil, operations, socioeconomic, transportation, pipeline

ABSTRACT: This report, including a narrative and accompanying map of coastal Alabama, is intended to be a guide for planning the location transportation systems for OCS produced oil and gas. Advisory information applies to the two coastal counties, Mobile and Baldwin, and the adjacent territorial waters of Alabama. Two categories for pipeline management are presented; (1) unsuitable; and (2) suitable with stipulations. Facilities capable of receiving oil and gas transported by barge and ship are identified and briefly described.

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ACC 4088; TYPE P; YEAR 1981
MAR. RESOUR. RES. INST.; S.C. WILDL. MAR. RES. DEPT.; GA. DEPT. NAT. RESOUR.;
SOUTH ATLANTIC OCS AREA LIVING MARINE RESOURCES STUDY.

BIBL A FINAL REPORT TO THE BUREAU OF LAND MANAGEMENT, ATLANTIC OCS OFFICE, NEW YORK, NY.

KEYWORD: biology, photodocumentation, live-bottom, epibiota, invertebrate, baseline study, fish, demersal fish, benthic, continental shelf, coral, sponge, mollusc

ABSTRACT: Studies were conducted to characterize invertebrate and fish communities associated with representative live-bottom areas from Cape Hatteras, North Carolina to northern Florida and to evaluate factors which might influence community structure. Live bottom areas were typified by expanses of sand-covered hard bottom and scattered outcrops and ledges of low to moderate relief. Bottom coverage by epibiota averaged 60 to 100% for most stations. The incidence of rock outcrops ranged from 5 to 40% and was highest at outer shelf stations, which are along a discontinuous series of relict reefs that extend from offshore North Carolina to northern Florida. A total of 1,175 invertebrate taxa were collected by dredge, trawl, suction, and grab sampling. Species richness and biomass of epibenthic organisms differed between stations and seasons, but not in a consistent pattern. At stations offshore South Carolina, Georgia, and Florida, sponges contributed the most biomass, and the most frequently collected organisms in dredges and trawls were species of bryozoans, hydroids, and sponges. At stations off North Carolina, macroalgae, hard corals, and molluscs contributed the most biomass, and species of macroalgae, molluscs, and decapod crustaceans were the most frequently collected organisms. Species composition varied in relation to depth, with inner and outer shelf biota being most dissimilar. Fish abundance, biomass, and community composition varied in relation to depth, season, and time of collection. The biomass and abundance of commercially important species were highest at middle shelf stations. Benthic crustaceans (decapods...

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ACC 4089; TYPE P; YEAR 1982
MAR. RESOURCE RES. INST., S.C. WILDL. & MAR. RESOURCES DEPT. ;
SOUTH ATLANTIC OCS AREA LIVING MARINE RESOURCES STUDY, YEAR 2.

BIBL A FINAL REPORT FOR THE U.S. DEPARTMENT OF THE INTERIOR, MINERALS MANAGEMENT SERVICE, WASHINGTON, DC. CONTRACT #AA551-CT1-18. FOUR VOLUMES.

KEYWORD: biology, epibiota, live bottom, demersal fish, hydrography, baseline study, continental shelf, invertebrate, benthic, photodocumentation

ABSTRACT: Studies were conducted to characterize fish and invertebrate communities associated with representative live-bottom habitats; to characterize food habits of selected fish species; to assess the bottom topography and substrate type; and to evaluate potential impacts of oil- and gas-related activities on live bottom organisms on the outer continental shelf from North Carolina to Georgia. Live bottom areas were typified by expanses of sand-covered hard bottom and scattered outcrops and ledges of low to moderate relief. Bottom coverage by epibiota averaged 75 to 100% for most stations. The incidence of rock outcrops ranged from 5 to 40% and was highest at outer shelf stations, which are along a discontinuous series of relict reefs that extend from offshore North Carolina to northern Florida. Live-bottom cover was not related to the incidence of outcrops because most epibiota was attached to sand-covered hard bottom. A total of 1,307 invertebrate taxa were collected by dredge, trawl, suction, and grab sampling. Species richness and biomass of epibenthic organisms varied spatially but not seasonally. At stations offshore South Carolina, Georgia, and at the outer shelf station off North Carolina sponges contributed the most biomass. The most frequently collected organisms in dredges and trawls were species of cnidarians, barnacles, bryozoans, and echinoderms. Species composition varied

in relation to depth, with inner and outer shelf biota being most dissimilar. Fish abundance, biomass, and community composition varied in relation to depth, season, and time of collection. Overall biomass and abundance were highest and...

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ACC 4090; TYPE P; YEAR 1984
MAR. RESOUR. RES. INST., S.C. WILDL. & MAR. RESOURC. DEPT.;
SOUTH ATLANTIC OCS AREA LIVING MARINE RESOURCES STUDY, PHASE III.

BIBL A FINAL REPORT FOR THE U.S. DEPARTMENT OF THE INTERIOR, MINERALS MANAGEMENT SERVICE, WASHINGTON, DC. CONTRACT #14-12-0001-29185. THREE VOLUMES.

KEYWORD: biology, recruitment, baseline study, continental shelf, benthic, epibiota, invertebrate, feeding habit, sponge, coral, artificial habitat, fouling

ABSTRACT: Colonization of artificial hard substrata by invertebrates and fishes, effects of sediment depth on distribution and abundances of sponges and corals; and food habits of selected hard-bottom fishes were investigated on the South Carolina and Georgia outer continental shelf. Short-term colonization of sessile organisms was related to seasons with respect to biomass, percent cover, and species richness. Fouling plates deployed near natural hard bottom areas supported higher species numbers than those deployed near soft bottom areas. Total cover, biomass, and species number increased significantly on plates submerged for three to twelve months. Fishes were immediately attracted to structures placed near hard-bottom areas; the same species were attracted to structures placed on soft bottom, although colonization took longer. The number of fish species counted among existing structures (shipwrecks) ranged from 18 to 24, and number of individuals ranged from 7,911 to 24,965. Sediment thickness is an important variable dicating [sic] the distribution and abundance of attached invertebrates within the study area. Ninety-five percent of all sponges and 93% of all corals examined occurred in sediment depths less than 5.0 cm. Octocorals were more abundant than sponges at all stations, and hard corals were uncommon. Different groups of fishes studied fed on planktonic, epibenthic, and infaunal invertebrates. There was little indication of diet overlap among species groups.

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ACC 171; TYPE ; YEAR 1973
MARINE ENVIRONMENTAL SCIENCES CONSORTIUM;
THE ECOLOGICAL IMPACT OF A DEEPWATER PORT IN THE NORTHEASTERN GULF OF MEXICO.

BIBL MARINE ENVIRONMENTAL SCIENCES CONSORTIUM, DAUPHIN ISLAND. AL. 26 P.

KEYWORD: benthic community, biology, continental shelf, hydrography, oceanography, physical process, dredging, port

ABSTRACT: Not available.

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ACC 892; TYPE ; YEAR 1985
MARISCAL, R.N.;
COELENTERATES AND CRUSTACEANS OF THE FLORIDA COAST.

BIBL FLORIDA STATE UNIVERSITY, DEPARTMENT OF BIOLOGICAL SCIENCES.

KEYWORD: behavior, benthic fauna, feeding habit, hydroid, crustacea, crab, coelenterate, stone crab

ABSTRACT: Dr. Mariscal and his graduate students have collected data on various aspects of the biology of several coelenterates and crustaceans found in the Florida waters. Data on different organisms and programs have been presented in 2 master's theses and 1 PhD dissertation with 4 other master's theses in preparation. Studies have included work on life histories of hydroids, hydroids on hermit crabs, behavior and ecology of hermit crabs, predator prey relationships and symbiotic associations of stone crabs and hermit crabs, nematocyst biology and feeding and behavior of several coelenterates.

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ACC 755; TYPE ; YEAR 1975
MARKEY, J.W.;
A STUDY OF THE EFFECTS OF MAINTENANCE DREDGING ON SELECTED ECOLOGICAL PARAMETERS IN THE GULFPORT SHIP CHANNEL, GULFPORT, MS.

BIBL U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, MOBILE, AL. 321 P.

KEYWORD: benthos, biology, phytoplankton, salinity, trace metals, turbidity, dredging, bacteria, sediment transport, port

ABSTRACT: Environmental effects of maintenance dredging in the Gulfport Ship Channel were determined in 1974. Parameters measured during the period June 22, through December 11, 1974 included salinity, turbidity, suspended solids, sediment particle size distribution, trace metals (copper, cadmium, iron, lead, zinc) in the water column and sediments, phytoplankton abundance and diversity, coliform bacteria concentration, and abundance and diversity of benthic macro-invertebrates. Discharge plumes associated with the dredging operation were less than 800 feet wide and 2,000 feet long. No plume was visible 2 - 3 hours after discharge. Natural influence on suspended solids (i.e., wind, wave action, tidal changes) were reported to be greater than the dredging operation. Sediment transport resulted in only a thin deposit, 3 to 12 inches deep, on the spoil banks within 2,000 feet of the point of discharge. There were no effects on trace metals in either the water column or in the sediments. No adverse impact on biological components of the study area was measured, although

the study period did not allow for a seasonal re-examination of either benthic or pelagic communities.

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ACC 4091; TYPE P; YEAR 1982
MARMORINO, G.O.;
WIND-FORCED SEA LEVEL VARIABILITY ALONG THE WEST FLORIDA SHELF (WINTER, 1978).

BIBL J. PHYS. OCEANOGR. 12:389-405.

KEYWORD: physical, oceanography, wind stress, loop current, meteorology, currents, numerical model, circulation, tide

ABSTRACT: Coastal tide gage and meteorological records from Pensacola to Key West for the period January-April 1978 have been examined for low-frequency fluctuations. The dominant 6-day period signals in sea level, alongshore wind stress, and atmospheric pressure were coherent over the entire shelf and propagated southward, consistent with the movement of cold fronts through the area. Sea level response lagged the local wind stress by 18 h (in the north) to 9 h (in the south). In response to a 1 dyn cm to the -2nd alongshore stress, sea-level amplitudes were largest (about 60 cm) where the shelf is widest (200 km) and undergoes an abrupt bend, and were about 30 cm elsewhere; large transient alongshore sea level slopes, on the order of 10 to the 6th, were thus set up. A linear steady-state shelf circulation model (Hsueh, 1980) is used to explore the sea level distribution that is in frictional equilibrium with a wind stress of given orientation. For a bottom resistance coefficient of 0.014 cm s to the -lst, a value suggested by an analysis of February current measurements on the inner shelf, the model results resemble the observed response. Modeled responses are trapped to within the inner shelf (depths < 30 m) with an e-folding scale of about 60 km. Experimentation with open-ocean forcing, idealized as a shelfbreak sea level distribution induced by various hypothetical configurations of the Loop Current, shows that changes in the equilibrium coastal response are negligibly small...

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ACC 4245; TYPE P; YEAR 1983
MARMORINO, G.O.;
VARIABILITY OF CURRENT, TEMPERATURE, AND BOTTOM PRESSURE ACROSS THE WEST FLORIDA CONTINENTAL SHELF, WINTER 1981-1982.

BIBL J. GEOPHYS. RES. (C. OCEANS ATMOS.) 88(C7):4439-4457.

KEYWORD: current, temperature, pressure, model, circulation, wind

ABSTRACT: Observations are analyzed from four current meter moorings deployed on the broad continental shelf in the northeastern Gulf of Mexico from November 29, 1981 to February 8, 1982 (71 days). Consistent with recent modeling studies, the shelf circulation responds within an inertial period to the alternating up-and-down-coast synoptic scale wind forcing. Average response to a 0.5 dyn cm super (-2) alongshore wind stress (as measured at the coast) is similar to 20 cm s super (-1) off Cedar Key and similar to 40 cm s super(-1) in the north where the shelf narrows (off Cape San Blas). Lower layer currents veer counterclockwise with depth, as in a bottom Ekman layer (e-folding scale similar to 8 m). The pressure field decays offshore (e-folding scale similar to 160 km) and yields a geostrophic current in good agreement with the observed along shelf flow.

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ACC 2513; TYPE P; YEAR 1945
MARSHALL, N.;
THE MOULTING WITHOUT GROWTH OF SPINY LOBSTERS, PANULIRUS ARGUS, KEPT IN A LIVE CAR.

BIBL TRANS. AM. FISH. SOC. 75:267.

KEYWORD: Dade, spiny lobster, tagging, growth, weight, length

ABSTRACT: A tagging study of captive spiny lobsters (Panulirus argus) revealed little growth increment (weight or length) between pre and post molting. The lack of growth was attributed to captivity conditions rather than the tagging method. Caution is advised in applying growth rate data obtained from laboratory studies to field populations of P. argus.

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ACC 549; TYPE ; YEAR 1978
MARTIN, R.G.;
NORTHERN AND EASTERN GULF OF MEXICO CONTINENTAL MARGIN: STRATIGRAPHIC AND STRUCTURAL FRAMEWORK.

IN A.H. BOUMA, G.T. MOORE, AND J.M. COLEMAN. EDS. FRAMEWORK, FACIES, AND OIL TRAPPING CHARACTERISTICS OF THE UPPER CONTINENTAL MARGIN. P. 21-42.

BIBL AM. ASSOC. PET. GEOL., TULSA, OK.

KEYWORD: fault, geologic history, geology, sedimentation, stratigraphy, structure, continental margin

ABSTRACT: The continental margin of the northern Gulf of Mexico extends from DeSoto Canyon to northern Mexico and from more than 300 km inland in the central Gulf Coast to the deep gulf floor. It is composed of a broad wedge of Mesozoic and Cenozoic strata that accumulated almost continuously from Jurassic time to the present. Mesozoic and Cenozoic deposits are more than 15 km thick beneath the lower coastal plain and adjacent continental shelf. For the most

part, the margin is a Cenozoic clastic embankment built by the inpouring of sediments from the continental interior after the late Cretaceous-Paleocene laramide orogeny. Sediment supplies generally exceeded the subsidence rate, prograding the seaward face of the margin more than 400 km from the edge of Cretaceous carbonate platform deposits under the coastal plain, to the present position of the continental slope. Along the inner regions of the coastal plain from Alabama to southwestern Texas, updip members of Mesozoic and Cenozoic units rest unconformably on complexly folded and faulted Paleozoic rocks of the Ouachita and Appalachian tectonic belts. Major structural anomalies affecting the Mesozoic-Cenozoic sequence of the coastal plain, shelf, and slope are salt diapirs, growth faults, and shale uplifts. Salt structures are concentrated in interior basins in the inner coastal plain, along the lower coast from central Texas to DeSoto Canyon, and across the continental shelf to the foot of the slope. Regional systems of growth faults slice through Cenozoic units beneath coastal Texas and Louisiana and in the adjacent shelf. Many of these faults formed as a response to sediment o...clastic sediments of Ordovician, Silurian, and Devonian age. Triassic red beds and associated diabase are common in the extensive graben systems that underlie northwestern Florida. Southern peninsular Florida is underlain by basement composed of volcanic and hypabyssal rocks of Triassic and Early Jurassic age. Geophysical data suggest similar basement complexes beneath the West Florida Shelf and Slope.

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ACC 551; TYPE ; YEAR 1978
MARTIN, R.G.; BOUMA, A.H.;
PHYSIOGRAPHY OF GULF OF MEXICO.

IN A.H. BOUMA, G.T. MOORE, AND J.M. COLEMAN. EDS. FRAMEWORK, FACIES, AND OIL TRAPPING CHARACTERISTICS OF THE UPPER CONTINENTAL MARGIN. 3-20 P.

BIBL AM. ASSOC. PET. GEOL., TULSA, OK.

KEYWORD: continental shelf, diapir, fault, geology, geomorphology, physiography, sedimentation, tectonic

ABSTRACT: The Gulf of Mexico covers an area of more than 1,500,000 sq km, has a maximum depth of about 3,700 m. and includes many of the geomorphic features of large oceans. The continental shelf, slope, rise and abyssal plain comprise the major physiographic provinces of the gulf and contain a variety of subprovinces distinguished by topographic character and geomorphic history. The gulf shelf is a relatively smooth, gently sloping surface marked locally by low-relief features formed by sea-level flucation during the Pleistocene, reef growth, near-surface movement of diapiric salt and mud, and faulting. Shelf width varies from about 280 km off the Florida and Yucatan Peninsulas to less than 10 km at the Mississippi Delta. The continental slope consists of a considerable variety of physiographic features that encircle the deep gulf floor. The distinctive subprovinces of the gulf slope have evolved in response to reef building and contructional sedimentation on the Florida and Yucatan carbonate platforms; erosion, nondepositional sedimentation in the region off Texas and Louisiana; the large accumulation of mainly Pleistocene sediment on a former continental slope seaward of the Mississippi Delta; tectonic uplift and diapirism in the Golfo de Campeche; and shale mobilization off eastern Mexico. In contrast to the greatly varied, irregular topography of the continental slope, the deep seafloor of the gulf (composed of the continental rise and abyssal plain provinces) is an almost featureless plain smoothed by turbidite and pelagic sedimentation and marked locally by low-relief knolls, sedimentary aprons and small-leveed channels.

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ACC 2448; TYPE P; YEAR 1975
MARTIN, R.E.;
DISTRIBUTION AND ECOLOGY OF THE FORAMINIFERA OF JOHN PENNEKAMP CORAL REEF STATE PARK, KEY LARGO, FLORIDA, WITH EMPHASIS UPON THE EFFECTS OF TURBID WATER PRODUCED BY DREDGING.

BIBL M.A. THESIS. UNIV. OF FLA. 205 P.

KEYWORD: Monroe, distribution, ecology, foraminifera, reef, wave, currents, diversity, turbidity, sediment, salinity, temperature, DO

ABSTRACT: Studies were conducted on the distribution and ecology of the foraminifera in the reef environments of John Pennekamp Coral Reef State Park. It was found wave and current action cause a seaward decrease in general species diversity, richness, and equitability. Study of the effect of high, dredge induced turbidity showed no significant impact on populations of foraminifera. Also, phototactic testing of turbidity-induced decreases in light intensity showed little effect on photic responses.

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ACC 4092; TYPE P; YEAR 1979
MATHIS, K.; CATO, J.C.; DEGNER, R.L.; LANDRUM, P.D.; PROCHASKA, F.J.;
COMMERCIAL FISHING ACTIVITY AND FACILITY NEEDS IN FLORIDA: DADE AND MONROE COUNTIES.

BIBL FLORIDA AGRICULTURE MARKET RESEARCH CENTER, INDUSTRY REPT. 79-3.

KEYWORD: biology, commercial fishery, landings (value), landings (pounds), socioeconomics, port

ABSTRACT: Information on the commercial seafood industries of Dade and Monroe Counties was obtained from published reports and from a mail survey of commercial fishermen and seafood dealers. Total seafood landings in the two counties were valued at $14.6 million in 1971. By 1976, landings had increased in value to $26.6 million. About 950 people were engaged in commercial fishing and 50 firms were registered as dealers. Registrations of commercial boats declined in Dade County but increased in Monroe County from 1963-64 to 1977-78, while pleasure boat registrations nearly tripled in the two counties together. Fishermen and dealers noted improvements they felt were needed in facilities and services in the ports and landing areas used.

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ACC 303; TYPE ; YEAR 1975
MATURO, F.J.; CALDWELL, J.W.; INGRAM, W.; HEARNE, F.L.;
MULTIVARIATE ANALYSIS OF THE MAFLA (MISSISSIPPI, ALABAMA, FLORIDA) WATER COLUMN BASELINE DATA.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-75/2. 143 P.

KEYWORD: metal, oceanography, physical process, salinity, temperature, zooplankton, MAFLA, depth, distribution

ABSTRACT: In the MAFLA region, a strong correlation exists between the zooplankton community and its environment. Two general regimes of environmental factors weigh heavily in this strong correlation: (1) inshore-offshore factors, and (2) surface to bottom layering. Important components of inshore-offshore patterns include station depth, net range, and salinity range, all of which are associated with deeper, more offshore stations; whereas, net depth, temperature, and temperature and salinity range are associated with surface to bottom layering. In general, species assemblages found to be correlated with the environment are regulated either by depth factors or changes in salinity and temperature. The low correlation between the zooplankton community and suspended trace metals indicates that low trace metals in the MAFLA area are not an important factor governing zooplankton community structure. However, the variation of trace metals within the zooplankters themselves is highly dependent on the species composition of the zooplankton community. This suggests that different organisms are affected differentially by hydrocarbons.

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ACC 4093; TYPE P; YEAR 1977
MAUL, G.A.;
THE ANNUAL CYCLE OF THE LOOP CURRENT PART I: OBSERVATIONS DURING A ONE-YEAR TIME SERIES.

BIBL J. MAR. RES. 35:29-47.

KEYWORD: physical, oceanography, hydrography, circulation, currents, loop current, Landsat, remote sensing, intrusion

ABSTRACT: The Gulf Loop Current is that portion of the Gulf Stream System which connects the Yucatan Current and the Florida Current in the eastern Gulf of Mexico. An experiment to cut the annual cycle proposed by Leipper (1970) was conducted from August 1972, through September 1972. Twelve pathlines of the 22 degrees C isotherm at 100 meters depth were made from Yucatan to the Florida Keys at 36-day intervals in conjunction with a satellite oceanography project. The sequence of pathlines shows an annual cycle of penetration into the eastern Gulf that is in phase with the historical annual cycle of current speeds and transports of the Gulf Stream, and is also reflected in tide gage sea-level records taken from Key West, Havana and Progreso. The data suggest that an excess inflow of Yucatan Current water of 4 x 10m s to the 4th over outflow of Florida Current water in the upper 500 meters is required to make the Loop Current grow; the outflow required to maintain static sea level conditions in the Gulf is postulated to be into the Caribbean Sea through the Yucatan Strait below this reference level. Separation of an anticyclonic eddy appears to be part of the annual cycle, which is shown to have great year-to-year variability.

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ACC 4264; TYPE P; YEAR 1978
MAUL, G.A.;
THE 1972-1973 CYCLE OF THE GULF LOOP CURRENT. PART 2: MASS AND SALT BALANCES OF THE BASIN.

PRESENTED AT SYMP. PROGRESS IN MARINE RESEARCH IN THE CARIBBEAN AND ADJACENT REGIONS, CARACAS, VENEZUELA, 12 JULY 1976. BIBL FAO, ROME (ITALY).

KEYWORD: loop current, eddy, continental shelf, hydrography, salinity, temperature

ABSTRACT: Hydrograpic sections were made across the Yucatan Strait and the Straits of Florida approximately every month from May 1972 to Sept. 1973. These data encompass a cycle of the Gulf Loop Current from eddy separation to eddy separation. The data suggest that the 5 C water near the bottom of the Yucatan Strait is forced out of the Gulf of Mexico when the Loop starts to form. About mid-way through the growth phase, resident Gulf waters advect out the Straits of Florida between the continental shelf of the United States and the Florida Current. After separation of an eddy, the 5 C water flows back into the basin, continuity being maintained by continued flow along the Florida coast. In the upper 700 m, approximately 10% of the water flowing into the basin through the Yucatan Strait is exchanged with resident Gulf waters before flowing out the Straits of Florida. The eddy separation causes an injection of 10 SU-16 g of salt into the western Gulf, and accounts for approximately 75% of the total salt exchange between the Gulf Loop Current and resident Gulf waters. Even though the basin has an excess of evaporation over precipitation, river runoff more than accounted for the atmospheric loss of fresh water during the 1972-1973 cycle.

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ACC 24491; TYPE P; YEAR 1979
MAY, J.A.; PERKINS, R.D.;
ENDOLITHIC INFESTATION OF CARBONATE SUBSTRATES BELOW THE SEDIMENT-WATER INTERFACE.

BIBL J. SEDIMENT. PETROL. 49(2):357-378.

KEYWORD: Monroe, carbonate, substrate, sediment, coral, reef

ABSTRACT: Carbonate substrates consisting of crushed conch shells and inorganic calcite were planted at and below the sediment-water interface in Florida Bay, Florida, Middle Marsh, North Carolina, and Carrie Bow Cay, Belize, to study endolithic infestation. The endolithic community of substrates beneath the sediment-water interface was less diverse than that at the sediment surface. Endolithic forms and activity are described through electron and light microscopic examinations. (This is the first known evidence of endolithic activity within buried marine sediments.) Endolithic heterotrophs may significantly affect the surrounding macroenvironment within sediments, possibly increasing sediment porosity.

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ACC 700; TYPE ;YEAR NO D
MCAULIFFE, C.D.; SMALLEY, A.E.; GROOVER, R.D.; WELSH, W.M.; PICKLE, W.S.; JONES.
CHEVRON MAIN PASS BLOCK 41 SPILL: CHEMICAL AND BIOLOGICAL INVESTIGATIONS.

BIBL CONFERENCE ON PREVENTION AND CONTROL OF OIL POLLUTION.

KEYWORD: benthic fauna, bioassay, biology, chemistry, hydrocarbon, sediment, oil spill, pollution, water quality

ABSTRACT: Not available.

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ACC 799; TYPE ; YEAR 1981
MCCAFFREY, P.M.;
STUDIES ON THE COMPOSITION AND ORGANIZATION OF THE DEMERSAL ICHTHYOFAUNA OF THE CONTINENTAL SHELF ZONE IN THE NORTHEASTERN GULF OF MEXICO.

BIBL FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION, TECHNICAL SERVICES VOLUME VI. NO.1. 576 P.

KEYWORD: biology, demersal fish, fishery, species composition

ABSTRACT: Not available.

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ACC 4177; TYPE P; YEAR 1969
MCCAULL, J.;
THE BLACK TIDE.

BIBL ENVIRONMENT 11(9):2-16.

KEYWORD: pollution, offshore drilling, fishery, ecology, oil spill

ABSTRACT: Not available.

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ACC 2120; TYPE P; YEAR 1979
MCCORMICK, R.;
THE SHRIMP INDUSTRY: GULF OF MEXICO TRAWLING.

BIBL FISH. NEWS INT. 18(10):77.

KEYWORD: shrimp, life history, distribution, pink shrimp, brown shrimp, commercial fishery, socioeconomic

ABSTRACT: This general review article of the shrimp industry of the Gulf of Mexico summarizes information on the species caught, their life histories and

their distributions. Seasonal variations in the abundance and distribution of the 3 Penaeus species are discussed.

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ACC 2121; TYPE P; YEAR 1982
MCCOY, E.; BELL, S.;
MARINE BIOGEOGRAPHIC BOUNDARIES ON FLORIDA'S WEST COAST.

PRESENTED AT ANNUAL MEETING OF FLORIDA FIELD BIOLOGISTS, TAMPA, FL.

BIBL

KEYWORD: biogeography, fish, crustacean, polychaete, mollusc, distribution

ABSTRACT: The distribution of 5 major taxa (teleost fish, decapod crustaceans, polychaetous annelids, and bivalve and gastropod molluscs) on the west coast of Florida was examined from distributional literature to determine whether or not Tampa Bay serves as a biogeographic boundary between temperate and tropical fauna. Species distributions were compiled from 8 shallow water sites between Pensacola/Panama City and Florida Bay and analyzed with Pielou's coincident end point technique and Raup and Crick s probabilistic similarity technique. Although a large number of endemic species were recorded for Tampa Bay, no true boundary was detected. Several species present in Florida Bay but absent at sites immediately to the north may indicate a boundary in the vicinity of Cape Romano; however, many of these species may be found in deeper water offshore far north of the Cape Romano area.

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ACC 2122; TYPE P; YEAR 1982
MCCOY, E.D.; BELL, S.;
TAMPA BAY: THE END OF THE LINE?

BIBL PRESENTED AT TAMPA BAY AREA SCIENTIFIC INFORMATION SYMPOSIUM, TAMPA, FL.

KEYWORD: fish, crustacean, polychaete, mollusc, biogeography, distribution

ABSTRACT: The distribution of 5 major taxa (teleost fish, decapod crustaceans, polychaetous annelids, and bivalve and gastropod molluscs) on the west coast of Florida was examined from distributional literature to determine whether or not Tampa Bay serves as a biogeographic boundary between temperate and tropical fauna. Species distributions were compiled from 8 shallow water sites between Pensacola/Panama City and Florida Bay and analyzed with Pielou's coincident end point technique and Raup and Crick's probabilistic similarity technique. Although a large number of endemic species were recorded for Tampa Bay, no true boundary was detected. Several species present in Florida Bay but absent at sites immediately to the north may indicate a boundary in the vicinity of Cape Romano; however, many of these species may be found in deeper water offshore far north of the Cape Romano area.

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ACC 2123; TYPE P; YEAR 1983
MCCOY, E.D.; BELL, S.S.; WALTERS, K.;
A SIMPLE TECHNIQUE FOR LOCATING FLORAL AND FAUNAL BOUNDARIES.

BIBL PRESENTED AT BENTHIC ECOLOG. MEETING., FLA. INSTITUTE OF TECHNOLOGY. MELBOURNE, FL.

KEYWORD: communities, molluscs

ABSTRACT: A simple probabilistic Monte Carlo test is presented for locating boundaries among groups of animals or plants. Using data from the North Atlantic, the technique was compared to other methods for 3 examples: the location of faunal zones on the Gulf coast of Florida; the location of boundary layers in oceanic plankton communities; and the separation of mollusks on a tidal gradient. The application of the technique in the benthic environment is discussed.

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ACC 4094; TYPE P; YEAR 1981
MCCOY, E.D.;
RARE, THREATENED, AND ENDANGERED PLANT SPECIES OF SOUTHWEST FLORIDA AND POTENTIAL OCS ACTIVITY IMPACTS.

BIBL U.S. FISH AND WILDLIFE SERVICE, BIOLOGICAL SERVICES PROGRAM. WASHINGTON, DC. FWS/OBS-81/50. 83 P.

KEYWORD: biology, coastal, ecology, oil and gas, endangered species, oil spill, hurricane

ABSTRACT: This report on rare, threatened, and endangered plants of southwest Florida is a compilation of all species so designated or considered for listing by Federal, State, and private agencies or organizations. Of 274 species in Pinellas, Hillsborough, Manatee, Sarasota, Charlotte, Lee, Collier, and Monroe Counties, 43 occurring in coastal habitats will be most affected by Outer Continental Shelf (OCS) development. The most serious potential effects of OCS activities on plants would result from oil spills. Under certain unfavorable conditions, offshore spills could adversely affect concentrations of coastal plants in predicted landfall areas. Rapid oil landfall is greater in summer, when onshore prevailing winds, thunderstorms and hurricanes occur. Potential damage to coastal habitats from OCS development can be lessened by centering activities at Port Manatee, relatively distant from concentrations of coastal plant species and already possessing developed facilities. Except for oil spills, adverse effects of OCS oil exploration and production on rare, threatened, and endangered plants in southwest Florida are minor. As part of the pervasive historical reduction of natural

habitats, however, the potential effects should not be ignored.

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ACC 4190; TYPE P; YEAR 1980
MCCULLOCH, W.L.; NEFF, J.M.; CARR, R.S.;
BIOAVAILABILITY OF SELECTED METALS FROM USED OFFSHORE DRILLING MUDS TO THE CLAM RANGIA CUNEATA AND THE OYSTER CRASSOSTREA GIGAS.

BIBL PROC. SYMP./RES. ENVIRON. FATE EFF. DRILL. FLUIDS CUTTINGS 2:964-983.

KEYWORD: metal, drilling fluid, drilling mud, heavy metal, mollusc, oyster

ABSTRACT: Not available.

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ACC 1102; TYPE ; YEAR N/A
MCDONALD, G.;
WATER HEIGHTS ASSOCIATED WITH VARIOUS HURRICANES.

BIBL U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, MOBILE, AL.

KEYWORD: hurricane, tide, water level

ABSTRACT: Several larger hurricanes occurring in the Gulf of Mexico were investigated and reported on. Water heights associated with each hurricane were included in these reports as well as patterns of movements and dates of occurrence from 1911 to the present time.

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ACC 4235; TYPE P; YEAR 1980
MCEACHRAN, J.D.; FINUCANE, J.H.; HALL, L.S.;
DISTRIBUTION SEASONALITY AND ABUNDANCE OF KING MACKEREL SCOMBEROMORUS-CAVALLA AND SPANISH MACKEREL SCOMBEROMORUS-MACULATUS LARVAE IN THE NORTHWESTERN GULF OF MEXICO PISCES SCOMBRIDAE.

BIBL NORTHEAST GULF SCI. 4(1):1-16.

KEYWORD: distribution, seasonality, abundance, king mackerel, spanish mackerel, larvae, spawning

ABSTRACT: Larvae of king mackerel S. cavalla and Spanish mackerel S. maculatus were collected from 1975.1977 off the Texas coast (USA). Both species were captured from May-October. S. cavalla was relatively more abundant of the 2 spp. and occurred most abundantly over the middle and outer continental shelf (35-183 m). At least 35% of the larvae were captured in September of each year. S. maculatus larvae occurred most abundantly over the inner continental shelf (12.50 m). S. cavalla spawned from May-September to early October, with the greatest spawning intensity occurring over the middle and outer continental shelf during September. S. maoulatus spawned from May-September to early October over the inner continental shelf, but spawning was less intensive and more irregular than for S. cavalla. Comparisons with other larval studies of S. cavalla and S. maculatus suggest that the northwestern and northeastern Gulf of Mexico and the coast off the southeastern USA are important spawning areas for S. cavalla and that the eastern and northeastern Gulf of Mexico are important spawning areas for S. maculatus.

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ACC 4095; TYPE P; YEAR 1963
MCERLEAN, A.J.;
A STUDY OF THE AGE AND GROWTH OF THE GAG, MYCTEROPERCA MICROLEPIS GOODE AND BEAN, ON THE WEST COAST OF FLORIDA.

BIBL ST. BD. CONSERV. TECH. SER. 41:1-29.

KEYWORD: biology, grouper, recreational fishery, life history, reproduction, coastal, commercial fishery

ABSTRACT: The age and growth of M. microlepis was studied by otolith method over a nine month period. Other aspects of the biology of this species were also studied. The following results were obtained: 1) the species on the Florida west coast can be aged by otolith methods, 2) linear growth was estimated by back calculation. The species attains a standard length of approximately seven inches during its first year of life. Increments of four and three inches are added during the second and third years. At this point, and to the age of six, growth increments average about three inches. 3) The species appears to be depth-size distributed. 4) Reproduction occurs offshore in the early spring. The eggs and larvae are probably demersal and pelagic.

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ACC 2450; TYPE P; YEAR 1955
MCGINTY, T.L.;
NEW MARINE MOLLUSCS FROM FLORIDA.

BIBL PROC. ACAD. NAT. SCI., PHILADELPHIA. PA. CVII:75-97.

KEYWORD: Monroe, mollusc, depth

ABSTRACT: Twelve new species of marine molluscs were recovered and described from dredge samples taken from about 1400 stations adjacent to or in the Gulf Stream, from Jupiter to the Key West area in offshore depths varying from shallow water to greater than 150 fathoms. These species include: Cryoturris engonia, Daphnella stegeri, Nitra noisei, Nitra olssoni, Fusilatirus pauli, Endoliun thompsoni, Aceteon finlayi,

Bullina exquiseta, Scaphander pilsbryi, Senele bellastriata donovani, Lini locklini, Aclistothyra atlantica.

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ACC 313; TYPE ; YEAR 1974
MCGRAW, K.A.;
TWO ABERRANT FORMS OF THE MOON JELLYFISH, AURELIA AURITA (LINNE). IN THE NORTHEASTERN GULF OF MEXICO.

BIBL CHESAPEAKE SCI. 15(1):55-56.

KEYWORD: hydrozoa, scyphozoa, biology, coastal water, distribution

ABSTRACT: The moon jellyfish, Aurelia aurita (Linne), is common in the coastal waters of the northeastern Gulf of Mexico from September through December, with infrequent occurrences in March and April. From April, 1971 to June, 1973 over 1500 normal specimens of Aurelia aurita were collected in a monthly sampling program, utilizing trawls and dip nets off the coasts of Mississippi, Alabama and Florida and one mile beach surveys on the barrier islands. Two aberrant Aurelia aurita were obtained during routine beach surveys.

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ACC 798; TYPE ; YEAR 1972
MCGRAW, K.A.; GUNTER, G.;
OBSERVATIONS ON KILLING OF THE VIRGINA OYSTER BY THE GULF OYSTER BORER, THAIS HAEMASTOMA, WITH EVIDENCE FOR A PARALYTIC SECRETION.

BIBL PROC. NATL. SHELLFISH. ASSOC. 62:95-97.

KEYWORD: biology, commercial fishery, life history, oyster, predation, mollusc

ABSTRACT: Experiments conducted with adult Thais haemastoma indicate that this oyster borer utilizes a paralytic secretion in attacking oysters. Approximately 30% of the oysters eaten by Thais showed no evidence of drilling on the shell. Drilling appears to be a secondary process in many cases, but is seldom found inward of the area of occlusion, or outer margin of the oyster shell.

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ACC 762; TYPE ; YEAR 1981
MCILWAIN, T.D.;
FISHERY MONITORING AND ASSESSMENT.

BIBL GULF COAST RESEARCH LABORATORY, OCEAN SPRINGS, MS. COMPLETION REPORT TO NOA ON PROJECT 2-296-R.

KEYWORD: biology, commercial fishery, fish, shrimp, plankton, nekton, purse seiner, trawl fishery

ABSTRACT: This report consists of catch statistics during the fisheries monitoring and assessment program from January, 1977 to December, 1981. Plankton, micronekton, trawl, seines and oyster collections were made. Physical measurements were taken at each station.

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ACC 2514; TYPE P; YEAR 1971
MCINTYRE, A.D.;
OBSERVATIONS ON THE STATUS OF SUBTIDAL MEIOFAUNA RESEARCH.

BIBL SMITHSONIAN CONTRIB. ZOOL. NO. 76, 149-154 P.

KEYWORD: Dade, meiofauna, ecology, distribution, seasonal, depth

ABSTRACT: The published data on quantitative aspects of subtidal meiofauna populations and their ecology was reviewed. The regional and vertical distribution, seasonal fluctuations, and composition of populations of subtidal meiofauna were considered in the review. It was concluded that geographic and depth range of sampling must be extended, seasonal changes in meiofauna must be studied in more detail, and sampling techniques must be refined.

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ACC 304; TYPE ; YEAR 1975
MCKOWN, M.M.; MONTALVO, J.G.;
THE QUALITY CONTROL OF TRACE METAL ANALYSIS FOR THE MAFLA (MISSISSIPPI, ALABAMA, FLORIDA) ENVIRONMENTAL SURVEY.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-75-3. 190 P.

KEYWORD: biology, food chain, metal, oceanography, continental shelf, sedimentation, MAFLA, trace metal

ABSTRACT: A comprehensive quality control program was conducted by Gulf South Research Institute in support of the MAFLA Trace Metal Phase of the Baseline Environmental Survey. Five different types of marine environmental samples, chosen at random from the samples analyzed by the prime contractor were submitted for quality control verification of eight different trace metals.

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ACC 2515; TYPE P; YEAR 1978
MCLAUGHLIN, P.; THORHAUG. A.;
RESTORATION OF THALASSIA TESTUDINUM: ANIMAL COMMUNITY IN A MATURING FOUR-YEAR-OLD SITE--PRELIMINARY RESULTS.

BIBL IN: D.P. COLE (ED.), THE RESTORATION OF COASTAL VEGETATION IN FLORIDA: PROC. OF THE FIFTH ANNU. CONF., MAY 13, 1978, TAMPA, FL.

KEYWORD: Dade, seagrass, annelid, mollusc, shrimp, crustacean, abundance, diversity

ABSTRACT: The fauna of a restored seagrass bed and an undisturbed natural seagrass bed are compared. Marked differences were noted with respect to annelids, isopods, molluscs, and penaeid shrimp. Restored areas versus controls preliminarily showed similar animal abundances and diversities.

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ACC 2516; TYPE P; YEAR 1961
MCNULTY, J.K.;
ECOLOGICAL EFFECTS OF SEWAGE POLLUTION IN BISCAYNE BAY, FLORIDA: SEDIMENTS AND THE DISTRIBUTION OF BENTHIC AND FOULING MACRO-ORGANISMS.

BIBL BULL. MAR. SCI. GULF. CARIBB. 11(3):394-447.

KEYWORD: Dade, sediment, distribution, benthic, fouling, pollution, DO, invertebrate, stress

ABSTRACT: Harmful effects, fertilizing effects and indicator organisms of sewage pollution in Biscayne Bay were described. Three stations close to sewage outfalls indicated harmful effects. Fertilizing effects caused many species of attached vegetation and benthic animals to become more abundant. Indicator organisms of both harmful and fertilizing effects were evident. The dominance of tubicilous amphipods on glass panels exposed for one month was the major characteristic of the fouling complex in highly polluted areas.

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ACC 2517; TYPE P; YEAR 1962
MCNULTY, J.K.; WORK, R.C.; MOORE, H.B.;
SOME RELATIONSHIPS BETWEEN THE INFAUNA OF THE LEVEL BOTTOM AND THE SEDIMENT IN SOUTH FLORIDA.

BIBL BULL. MAR. SCI. GULF CARIBB. 12:322-332.

KEYWORD: Dade, sediment, invertebrate, infauna

ABSTRACT: Detritus feeders were found to predominate in the finest sediments, and deposit and filter feeders at intermediate grades, but the latter were most abundant at a considerably greater particle size than that found by Sanders in Buzzards Bay. There was a very close correlation between the body size of the deposit feeders and the particle size, regardless of the type of animal concerned.

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ACC 2518; TYPE P; YEAR 1970
MCNULTY, J.K.;
EFFECTS OF ABATEMENT OF DOMESTIC SEWAGE POLLUTION ON THE BENTHOS, VOLUMES OF ZOOPLANKTON AND THE FOULING ORGANISMS OF BISCAYNE BAY, FLORIDA.

BIBL STUD. TROP. OCENAOGR. MIAMI, 9:107 P. 19 FIGS.

KEYWORD: Dade, pollution, zooplankton, fouling, benthic, invertebrate, nutrient, phosphate

ABSTRACT: A comparison of the benthos before and four years after pollution abatement was presented. The pollution consisted of 136 to 227 million liters per day of untreated domestic sewage. At distances of 2100 to 740 meters seaward from outfalls, in water depths of one to three meters, hard bottom populations of benthic macroinvertebrates had declined from abnormally large numbers of species and individuals to normal numbers of each, while soft bottom populations had changed qualitatively but not quantitatively. Adjacent to outfalls, populations had increased in numbers of species and numbers of individuals in hard sandy bottoms only. Volumes of zooplankton had decreased to about one-half the preabatement values in poorly flushed waters; elsewhere they remained about the same. Dissolved inorganic phosphate-phosphorus decreased similarly. Abundance of amphipod tubes declined markedly. No evidence of improved commercial and sport fishing followed abatement (probably from persistence of other forms of pollution and dredging).

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ACC 2451; TYPE P; YEAR 1969
MCPHERSON, B.F.;
STUDIES ON THE BIOLOGY OF THE TROPICAL SEA URCHIN, ECHINOMETRA JUCUNTER AND ECHINOMETRA VIRIDIS.

BIBL BULL. MAR. SCI. 19(1):194-213.

KEYWORD: Monroe, biology, spawning, reef, echinodermata, growth, reproduction, feeding habit, behavior

ABSTRACT: The growth and reproduction of 2 echinoid species, Echinometra lucunter and E. viridis were studied at 5 locations in the Florida Keys. Gametogenesis was found to occur during spring and summer, with both species spawning in late summer or early fall. The reproductive cycles of E. lucunter from different habitats were similar, although relative gonad growth and test size were greater in individuals from inshore areas than those from offshore patch reefs. Variations in abundance and size of urchins between locations are cited. Feeding habits and behavior of both species are discussed.

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ACC 634; TYPE ; YEAR 1980
MEISBURGER, E.; HULMES, L.J.; HANDS, E.B.; WILLIAMS, S.J.; EVERTS. D.H.; PRINS.
BARRIER ISLAND SEDIMENTATION STUDIES PROGRAM.

IN PROCEEDINGS OF THE CONFERENCE COASTAL ZONE 80. 810-828 P.

BIBL AMERICAN SOCIETY OF CIVIL ENGINEERS, HOLLYWOOD, FL.

KEYWORD: barrier island, erosion, geology, model, physical process, sedimentation, sediment transport

ABSTRACT: Not available.

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ACC 2228; TYPE P; YEAR 1972
MENZIES, R.J.; GEORGE, R.Y.;
TEMPERATURE EFFECTS ON BEHAVIOR AND SURVIVAL OF MARINE INVERTEBRATES EXPOSED TO VARIATIONS IN HYDROSTATIC PRESSURE.

BIBL INT. LIFE OCEANS, COAST WAT. 13(2):155-159.

KEYWORD: invertebrate, pressure, temperature, salinity, stress

ABSTRACT: The effect of hydrostatic pressure in living specimens of tropical stenothermal species was studied in order to evaluate the relationship between the high temperatures and organisms genetically and physiologically adapted to a warm water milieu. The effect of pressure on eurythermal stenobathial species physiologically acclimated to high and low temperatures was also studied. Generally, increasing temperature increases the pressure required to elicit reversible reactions such as "increased activity" and tetany, or paralysis, whereas increasing temperature generally evokes the irreversible response of death (LD 50) at a decreasing pressure. Tropical stenotherms tend to be more sensitive to hydrostatic pressure than eurythermal-temperate species at the same or similar temperatures.

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ACC 4096; TYPE P; YEAR 1983
MENZIES. R.J.; KRUCZYNSKI, W.L.;
ISOPOD CRUSTACEA (EXCLUSIVE EPICARIDEA): MEMOIRS OF THE HOURGLASS CRUISES. VOL. VI, PART I.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 126 P.

KEYWORD: ecology, crustacea, systematic, distribution, biology, zoogeography, epifauna, hourglass, benthic, continental shelf

ABSTRACT: Thirty-two species in 26 genera of marine isopod crustaceans (excluding Epicaridea) were captured in a 28-month program at ten stations (6 to 73 m) along two transects on the central west Florida shelf. Two new species in new genera [Tropedotea lyonsi (Idotheidae), Edwinjoyoea horologium (Arcturidae)] are described, as are eight new species in previously known genera [Arcturella spinata and Arcturella bispinata (Arcturidae), Gnathia floridensis (Gnathiidae), Mesanthura floridensis and Skuphonura lindae (Anthuridae), Paranthura floridensis (Paranthuridae), Lironeca tropicalis (Cymothoidae), Carpias floridensis (Janiridae)]. High incidence of new taxa reflects little previous study of Gulf of Mexico and Caribbean shelf isopods. Previously known species were predominantly of West Indian Faunal Province affinity, but several temperate and a few boreal species were present. Coincidence of species from three west Florida estuaries with Hourglass shelf species ranged from 18 to 41 percent; only 25 percent of the shelf species have been reported from any west Florida estuary. Fourteen species comprised 92 percent of all specimens. Habitat partitioning by depth, apparent for many species, was probably related to substrate and associated organisms. Checklists and analytical keys are provided for all marine isopod species (except Epicaridea) known previously or expected to occur in the Gulf of Mexico and Caribbean Sea from depths less than 600 m.

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ACC 4180; TYPE P; YEAR 1983
MENZIE, C.A.;
ENVIRONMENTAL CONCERNS ABOUT OFFSHORE DRILLING--MUDDY ISSUES.

BIBL OCEANUS 26(3):32-38.

KEYWORD: drilling mud, drill cutting, oil and gas, pollution, produced water, offshore

ABSTRACT: Drilling fluids (muds). drill cuttings, and produced waters (the discharge associated with oil-production operations) are the most significant discharges associated with offshore oil and gas operations. The quantities of these discharges vary. During exploration, drilling is conducted to determine the nature and extent of potential oil and gas reserves. These operations are usually short, involve a small number of wells, and are generally conducted from mobile platforms or vessels. Drilling muds and cuttings are discharged during exploration. Once oil and gas is found, development begins, which involves the drilling of 10 to 30 wells, usually from a fixed platform. Since more wells are drilled, a larger volume of drilling muds and cuttings are discharged during development than during exploration.

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ACC 2170; TYPE P; YEAR 1975
MESSING, C.G.;
THE SYSTEMATICS AND DISTRIBUTION OF THE CINOIDEA COMAATULIDA (EXCLUSIVE OF THE MACROPHREATINA) COLLECTED BY THE R/V CERDA IN THE STRAITS OF FLORIDA AND ADJACENT WATERS.

BIBL M.S. THESIS. UNIV. OF MIAMI.

KEYWORD: crinoid, geographic, distribution, morphology, substrate

ABSTRACT: Comatulid crinoids from 8 genera were studied from samples collected from the Straits of Florida. Observations were made on morphological variations and distributions. Analysis of geographic and bathymetric distributions revealed 5 distinct patterns of horizontal distribution. Cirrus morphology and substrate preference were investigated. Geographic ranges were extended and new species were described.

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ACC 4097; TYPE P; YEAR 1982
METZ, S.;
PROVENANCE AND PARTITIONING OF FE, MN, AND SR IN WEST FLORIDA SHELF SEDIMENTS AS A FUNCTION OF GRAIN SIZE AND CARBONATE CONTENT.

BIBL M.S. THESIS. FLA. INST. TECH. 161 P.

KEYWORD: chemistry, MAFLA, trace metal, sediment, mineralogy, geochemistry, metal, carbonate, grain size

ABSTRACT: A chemical leaching technique has been developed to selectively remove the carbonate phase with associated trace metals from marine sediments. This technique combines use of a sodium acetate-acetic acid buffer (ph 5) with careful addition of 1 ml aliquote of 1 N HN03. Results from the carbonate leaching experiments have been combined with sediment grain-size, carbonate and organic carbon data, mineralogy, and total trace metal concentrations to describe the distribution and provenance of trace metals in the carbonate-rich West Florida Shelf sediments. As a function of the predominant grain-size fraction present in the sediments, the West Florida Shelf can be divided into three bands which run parallel to the Florida coastline; nearshore, fine sand grading into coarse and followed by fine sand with increasing distance offshore. Carbonate is the major component within each one of the predominant grain-size fractions (> 85%), except for the quartz-bearing fine sands of some nearshore samples. The carbonate grains found on the shelf also can be divided into the following bands parallelling the Florida coastline; mollusks, coralline algae, ooids, and foraminifers with increasing distance offshore. The minor noncarbonate phase of the West Florida Shelf sediment (generally less than 20% of the total) ranges from quartz in nearshore samples of kaolinite and montmorillonite clays in offshore samples. Analysis of Fe, Mn and Sr in both the carbonate and noncarbonate phase revealed that Fe is predominantly associated with the non-carbonate phase (>95% of the total Fe), while the carbonate phase is the major Mn- and Sr-bearing...

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ACC 305; TYPE ; YEAR 1976
MEYERS, P.A.;
AN EXTENSION OF THE BASELINE COMPOSITIONS OF HYDROCARBONS IN BENTHIC EPIFAUNA OFF THE OUTER CONTINENTAL SHELF OF THE EASTERN GULF OF MEXICO.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-76/02. 44 P.

KEYWORD: benthic community, hydrocarbon, continental shelf, pollution, epifauna, benthic, aliphatic compounds

ABSTRACT: Twenty-four samples of benthic macrofauna collected during the MAFLA baseline survey under contract 08550-CT4-11 were analyzed for indigenous hydrocarbons. The procedures used are specified in contract 08550-CT5-30 and involve separating the extracted hydrocarbons into aliphatic and unsaturated fractions and analyzing each fraction by gas chromatography on two different columns. Data obtained from these analyses show that the ratio of odd to even alkanes is close to unity in all the samples. This appears to be a natural characteristic of marine organisms. A homologous series of n-alkanes peaking around C25 to C27 is found in many of the samples. In most samples, the unsaturated fraction of hydrocarbons is at a greater concentration than the aliphatic fraction. These organisms display no obvious evidence of oil contamination.

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ACC 4111; TYPE P; YEAR 1981
MEYERS, A.A.;
AMPHIPOD CRUSTACEA I. FAMILY AORIDAE. MEMOIRS OF THE HOURGLASS CRUISES. VOL. V, PART V.
BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 75 P.

KEYWORD: crustacea, continental shelf, breeding cycles, biology, systematic, zoogeography, hourglass, ecology, epifauna, benthic, distribution

ABSTRACT: Thirteen species of aorid amphipods [Lembos tigrinus Myers, L. tempus Myers, L. spinicarpus inermis Myers, L. unicornis Bynum and Fox, L. unifasciatus reductus Myers, L. brunneomaculatus mackinneyi Myers, L. ovalipes Myers, L. smithi (Holmes), Microdeutopus myersi Bynum and Fox, Rildardanus laminosa (Pearse), Liocuna caeca new genus and species, Unicola serrata Shoemaker and Acuminodeutopus naglei (Bousfield)] were collected during a 28-month sampling progamme at ten stations (6-73 metres depth) along two east-west transects on the central West Florida Shelf. Two further species (Lembos setos Myers and L. rectangulatus Myers), not collected during the Hourglass progamme but collected subsequently in the survey area, are included in the review. These species are diagnosed and figured, and their bathymetric distribution within the study area discussed. Relationships of families within the superfamily Corophioidea are discussed, and a new family, Neomegamphopidae, is erected to include Neomegamphopus, Knoatopus, Maragopsis, Pseudome

gamphopus and Varohios. Zoogeographic analysis of Hourglass Aoridae revealed three species with Transhatteran affinities, seven species with West Atlantic Tropical affinities, and five species known only from the West Atlantic Warm-Temperater. None were strictly Carolinian species. Breeding cycles of selected species were investigated. Lembos tigrinus and L. tempus had breeding peaks between August and November, whereas L. smithi had a breeding peak between March and May.

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ACC 4174; TYPE P; YEAR 1978
MEYERS, P.A.;
MONITORING OF HYDROCARBONS IN BENTHIC CRUSTACEANS DURING OFFSHORE DRILLING AND PETROLEUM EXPLORATION.

BIBL CHEMOSPHERE 7(5):385-391.

KEYWORD: hydrocarbon, benthic, crustacean, offshore drilling, pink shrimp

ABSTRACT: Not available.

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ACC 4202; TYPE P; YEAR 1981
MIDDLEDITCH, B.S.;
BIOCIDES (IN ENVIRONMENTAL EFFECTS OF OFFSHORE OIL PRODUCTION).

BIBL MAR. SCI. 14:55-57.

KEYWORD: offshore drilling, pollution, biological

ABSTRACT: Not available.

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ACC 4204; TYPE P; YEAR 1980
MIDDLEDITCH, B.S.; BASILE, B.;
ALKANES IN BENTHIC ORGANISMS FROM THE BUCCANEER OIL FIELD.

BIBL BULL. ENVIRON. CONTAM. & TOXICOL. 24:945-952.

KEYWORD: benthic, coral, mollusc, petroleum, hydrocarbon, sediment, pollution, hydroid

ABSTRACT: Alkane profiles of 48 benthic organisms from the Buccaneer oil field are reported. Coral samples contained biogenic alkanes in the C22 to C32 region (Koons et al. 1965). Hydroid specimens exhibited similar profiles which were also ascribed a biogenic origin. Samples of one species of mollusc, Pleuroploea giganta, from the production and quarters platforms contained petroleum alkanes, while corresponding samples from the well jacket did not contain these compounds. Some specimens of another mollusc, Pteria colymbus, contained petroleum hydrocarbons, while there was no evidence for petroleum hydrocarbons in any of the other species examined: Arbacia unctulata, Chloeia viridis, Murex fulvescens, Pagurus floridanus, and Fasciolaria hunteria. Molluscs have been shown to sequester petroleum hydrocarbons after long periods of exposure. In the present study, however, petroleum alkanes were found only in Pleuroploea gigantea and Pteria colymbus but even in these organisms such hydrocarbons were generally present in concentrations lower than those of the biogenic hydrocarbons. (Sinha-OEIS)

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ACC 4292; TYPE P; YEAR 1981
MIDDLEDITCH, B.S.;
HYDROCARBONS AND SULFUR (ENVIRONMENTAL EFFECTS OF OFFSHORE OIL PRODUCTION: THE BUCCANEER GAS AND OIL FIELD STUDY).

BIBL MAR. SCI. 14:15-54.

KEYWORD: hydrocarbon, oil, petroleum, pollution, geochemistry, sediment

ABSTRACT: Not available.

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ACC 4293; TYPE P; YEAR 1981
MIDDLEDITCH, B.S.;
ENVIRONMENTAL EFFECTS OF OFFSHORE OIL PRODUCTION: THE BUCCANNEER GAS AND OIL FIELD STUDY.

BIBL MAR. SCI. 14:446 P.

KEYWORD: oil, pollution, sediment

ABSTRACT: Not available.

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ACC 2344; TYPE P; YEAR 1978
MIKKELSON, P.S.;
A COMPARISON OF INTERTIDAL DISTRIBUTION GROWTH RATES, AND SHELL POLYCHROMISM BETWEEN TWO FLORIDA POPULATIONS OF THE COQUINA CLAM, DONAX VARIABILIS SAY, 1882 (BIVALVE: DONACIDAE).

BIBL M.S. THESIS. FLA. INST. OF TECH.

KEYWORD: Lee, population, salinity, sediment, grain size, wave, distribution, growth, mollusca, behavior

ABSTRACT: Population density, shell coloration, and migratory behavior of Donax variabilis were compared in two populations collected from Sanibel Island and Indiatlantic Beach, Florida, during the summer of 1976. The influence of certain environmental factors, such as salinity, rainfall, sediment grain size, organic leptopel and wave impact, on population distribution and shell coloration was examined. Differences in population size, distribution, shell color, growth rate, and migratory movements were found between the 2 populations. The adaptive effects of polychromism are discussed.

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ACC 709; TYPE ; YEAR 1980
MILLER, J.M.; DUNN, M.L.,
FEEDING STRATEGIES AND PATTERNS OF MOVEMENT IN JUVENILE ESTUARINE FISHES.

BIBL IN V.S. KENNEDY, ED. ESTUARINE PROSPECTIVES. ACADEMIC PRESS. NEW YORK, NY

KEYWORD: biology, coastal water, ecology, feeding habit, fish, juvenile, estuary

ABSTRACT: Juvenile fishes in estuaries are trophic generalists; there is little evidence of their dependence on specific prey populations. The energetic costs of obtaining food are unknown since food habit data are rarely coupled with prey availability data, but it appears that locating prey may be more important than prey abundance. Cues for locating prey may be either prey abundance or environmental correlates of prey abundance. Juvenile fish may respond to the environmental rigors of the estuary by 1) increased breadth of tolerance limits or 2) inter- or intra-habitat movements. In hopes of encouraging the development of a data base on juvenile estuarine fishes, the authors list critical research needs.

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ACC 4098; TYPE P; YEAR 1984
MILLER, J.E.; PAWSON, D.L.;
HOLOTHURIANS (ECHINODERMATA; HOLOTHUROIDEA). MEMOIRS OF THE HOURGLASS CRUISES. VOL. VII, PART I.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 79 P.

KEYWORD: echinodermata, systematic, benthic, epifauna, distribution, biology, hourglass, zoogeography, ecology, continental shelf

ABSTRACT: A total of 213 holothurians, representing 16 species, was collected during Project Hourglass, a 28-month systematic survey of ten stations along two transects (6-73 m) off central western Florida. This material, supplemented with 81 additional Gulf of Mexico specimens supplied by the Florida Department of Natural Resources, brings the total number of species reported in this paper to 20. Of these species, 19 have previously been reported from the Gulf of Mexico. One, Allothyone mexicana, can be considered endemic to the Gulf of Mexico, and another, Thyone crassidisca, was recently described from material including Hourglass specimens. Systematic accounts, pertinent ecological data and line drawings of taxonomically important skeletal elements are included for each species. Keys to all 60 holothurian species known from the Gulf of Mexico are provided. Range extensions for several species are noted.

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ACC 178; TYPE ; YEAR 1983
MINERALS MANAGEMENT SERVICE;
REGIONAL ENVIRONMENTAL ASSESSMENT--GULF OF MEXICO PIPELINE ACTIVITIES.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA.

KEYWORD: dredging, exploration, oil, continental shelf, pipelines, production

ABSTRACT: Pipeline construction, operation, and maintenance on the OCS causes minimal impacts to onshore air quality. Water quality may be adversely affected by suspension of sediment during construction or trenching operations; such impacts are localized and of short duration, however. Animal and plant life may be adversely affected by the physical disturbance and turbidity, but the nonburied pipelines furnish a substrate for encrusting organisms and result in increased diversity in the biological community in the vicinity of the pipelines. Impacts on shipping and navigation through collisions are negligible due to the low number of vessels involved in pipeline construction. Some 25 acres per mile of seafloor are involved in pipeline rights-of-way, although only a small portion of that acreage is physically disturbed by pipeline emplacement. At present, pipelines do cause a significant adverse impact on other commercial fisheries. Cultural resources on the OCS could be impacted by physical disturbance caused by anchoring, pipeline construction, or jetting. These potential impacts are mitigated through the requirement of pre-lay surveys. Although most breaks in offshore pipelines have resulted in only minimal amounts of oil spilled, eight pipeline breaks since 1964 have resulted in spills greater than 1,000 bbls. To date, no major spill from OCS pipelines in the Gulf has resulted in catastrophic short-term environmental degradation. Impacts of pipeline emplacement on coastal habitats include destruction of vegetation and sessile and slow-

moving animals, habitat alteration, changes in salinity and hydrologic regimes, and increased ma...

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ACC 403; TYPE ; YEAR 1983
MINERALS MANAGEMENT SERVICE;
DRAFT ENVIRONMENTAL IMPACT STATEMENT, GULF OF MEXICO PROPOSED OCS OIL AND GAS LEASE OFFERINGS CENTRAL GULF OF MEXICO (APRIL 1984), WESTERN GULF OF MEXICO (JULY 1984).

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 357 P.

KEYWORD: biology, chemistry, exploration, geology, industry, oil, continental shelf, physical process, socioeconomic

ABSTRACT: Not available.

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ACC 404; TYPE ; YEAR 1982
MINERALS MANAGEMENT SERVICE;
DRAFT REGIONAL ENVIRONMENTAL IMPACT STATEMENT--GULF OF MEXICO.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 730 P.

KEYWORD: biology, chemistry, exploration, geology, industry, oil, continental shelf, physical process, sociology

ABSTRACT: Not available.

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ACC 405; TYPE ; YEAR 1983
MINERALS MANAGEMENT SERVICE;
FINAL REGIONAL ENVIRONMENTAL IMPACT STATEMENT--GULF OF MEXICO, VOLUME 1.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 527 P.

KEYWORD: chemistry, exploration, geology, industry, oil, continental shelf, physical process, socioeconomic

ABSTRACT: This document discusses the purpose and background of the proposed actions, the alternatives, including the proposed actions, the description of the affected environment, and the environmental impacts of the proposed central Gulf of Mexico Sale 72, Western Gulf of Mexico Sale 74, and Eastern Gulf of Mexico Sale 79.

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ACC 406; TYPE ; YEAR 1983
MINERALS MANAGEMENT SERVICE;
FINAL REGIONAL ENVIRONMENTAL IMPACT STATEMENT--GULF OF MEXICO, VOLUME 2.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA.

KEYWORD: chemistry, exploration, geology, industry, oil, continental shelf, physical process, socioeconomic

ABSTRACT: Not available.

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ACC 674; TYPE ; YEAR 1983
MINERALS MANAGEMENT SERVICE;
MINERAL REVENUES: THE 1982 REPORT ON RECEIPTS FROM FEDERAL AND INDIAN LEASES, WITH SUMMARY DATA FROM 1920 TO 1982.

BIBL U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 68 P.

KEYWORD: mineral resource, oil, continental shelf, resource, socioeconomic

ABSTRACT: This document is prepared by the Royalty Management Program of the Minerals Management Service as a summary report presenting data on the mineral leasing revenues generated from Federally owned offshore and onshore lands and Indian tribal lands and allotments. The royalties collected in 1982 totaled $9.3 billion for the entire United States. Offshore Louisiana revenues contributed nearly $3.2 billion.

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ACC 987; TYPE ; YEAR 1984
MINERALS MANAGEMENT SERVICE;
RECAP OF BIDS FOR OCS SALE 81 AND RELATED INFORMATION.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO REGIONAL OFFICE, METAIRIE, LA. 95 P.

KEYWORD: exploration, gas, industry, offshore lease, offshore mineral, oil, continental shelf, socioeconomic

ABSTRACT: This is a compilation of bids for OCS lease from OCS sale 81 held on April 24, 1984. Information presented includes the amount offered on each tract, the company name and whether the bid was accepted.

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ACC 1022; TYPE ; YEAR 1983
MINERALS MANAGEMENT SERVICE;
QUARTERLY REPORT--JANUARY - FEBRUARY - MARCH - 1983.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 69 P.

KEYWORD: exploration, gas, oil well, oil, operations, continental shelf, socioeconomic

ABSTRACT: Not available.

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ACC 1023; TYPE ; YEAR 1983
MINERALS MANAGEMENT SERVICE;
QUARTERLY REPORT--OCTOBER - NOVEMBER - DECEMBER - 1983.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 76 P.

KEYWORD: exploration, gas, oil well, oil, operations, continental shelf, socioeconomic

ABSTRACT: Not available.

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ACC 1024; TYPE ; YEAR 1984
MINERALS MANAGEMENT SERVICE;
QUARTERLY REPORT--JANUARY - FEBRUARY - MARCH - 1984.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 77 P.

KEYWORD: exploration, gas, oil well, oil, operations, continental shelf, socioeconomic

ABSTRACT: Not available.

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ACC 4203; TYPE P; YEAR 1981
MINERALS MANAGEMENT SERVICE;
PROCEEDINGS: 2ND ANNUAL GULF OF MEXICO INFORMATION TRANSFER MEETING.

BIBL TECH. REPT. NO. 81-5-T. 108 P.

KEYWORD: fish, oil spill, geology, polychaete, circulation, biological, oceanography, ecology

ABSTRACT: The meeting discussed here was held in order to provide a forum for exchange of current data and information generated through environmental studies in the Gulf of Mexico. Topics discussed include: topographic features; effects of oil and gas activities on reef fish populations; assessment of the IXTOC oil spill damage; economic aspects of the IXTOC I spill and BURMA AGATE spill; geology studies; recreational fisheries investigations; marine ecological mapping projects; deep sea biology; polychaete studies; southwest Florida shelf ecosystems studies; satellite oceanography; southwest Florida shelf circulation; coastal ecological characterizations; and endangered species studies. (Halterman-PTT)

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ACC 1027; TYPE ; YEAR 1984
MINERALS MANAGEMENT SERVICE;
DRAFT ENVIRONMENTAL IMPACT STATEMENT--PROPOSED OIL AND GAS LEASE SALES 94, 98, AND 102, GULF OF MEXICO REGION.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 512 P.

KEYWORD: biology, chemistry, exploration, gas, geology, oil, continental shelf, physical process, socioeconomic

ABSTRACT: This document discusses the purpose and background of the proposed actions, the alternatives including the proposed actions, the description of the affected environment, and the environmental impacts of the proposed Central Gulf of Mexico Sale 98 (May 1985), Western Gulf of Mexico Sale 102 (July 1985), and Eastern Gulf of Mexico Sale 94 (November 1985).

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ACC 140; TYPE ; YEAR 1982
MISSISSIPPI DEPARTMENT OF WILDLIFE CONSERVATION;
MISSISSIPPI COASTAL WATERS MINERAL LEASE SALE AREA NUMBER 1. ENVIRONMENTAL PROFILE AND GENERIC ENVIRONMENTAL GUIDELINES FOR ACTIVITIES ASSOCIATED WITH OIL AND GAS DRILLING RIGS AND PRODUCTION PLATFORMS.

BIBL MISSISSIPPI DEPARTMENT OF WILDLIFE CONSERVATION, BUREAU OF MARINE RESOURCES, LONG BEACH, MS.

KEYWORD: biology, coastal water, exploration, fishery, oil, pollution

ABSTRACT: Recently oil and gas industries and the Mississippi State Government have increased their interest and initiatives in investigating potential oil and gas resources in the coastal waters of the State of Mississippi and in developing and producing these resources under conditions which are mutually beneficial

to both parties. In developing these resources in Mississippi's coastal waters, appropriate resource management requires that environmental and socioeconomic factors be considered and evaluated. These considerations and evaluations will provide information which can be utilized to render decisions aimed at maximizing benefits to the citizens of the state regarding oil and gas development in Mississippi's coastal waters.

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ACC 1006; TYPE ; YEAR 1983
MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES;
1982 ANNUAL REPORT.

BIBL MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES, JACKSON, MS. 25 P.

KEYWORD: coastal water, data, pollution control, recreation, resource, socioeconomic, tourism

ABSTRACT: This is the annual report of the Mississippi Department of Natural Resources. The report summarizes the activities of the department, including annual expenditures and revenues. Bureaus discussed are the Bureau of Pollution Control, the Bureau of Geology, the Bureau of Land and Water Resources, and the Bureau of Recreation and Parks.

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ACC 2027; TYPE P; YEAR 1981
MITCHELL-TAPPING, H.J.;
PARTICLE BREAKDOWN OF RECENT CARBONATE SEDIMENT IN CORAL REEFS.

BIBL FLORIDA SCI. 44(1):21-29.

KEYWORD: carbonate, coral, reef, sediment, wave, grain size

ABSTRACT: Carbonate sediment of reef shoal environments form the Bahamas, Dry Tortugas, Lower Florida Keys, Grand Cayman Island and U.S. Virgin Islands were examined with a scanning electron microscope. Particle-size abundances (or nodes) for each site were found to be a product of the sorting potential of wave energy. This sorting potential is the major part in the breakdown of sand sized skeletal particles rather than micro-architectural structure as proposed by the Sorby principle.

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ACC 4099; TYPE P; YEAR 1978
MITCHUM, R.M., JR.;
SEISMIC STRATIGRAPHIC INVESTIGATION OF WEST FLORIDA SLOPE, GULF OF MEXICO.

IN A.H. BOUMA, G.T. MOORE, AND J.M. COLEMAN, EDS. BEYOND THE SHELF BREAK. 193-223 P.

BIBL AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS, MARINE GEOLOGY COMMITTEE SHORT COURSE, VOL. 2.

KEYWORD: seismic, continental shelf, bathymetry, sediment, geologic history, geology, geophysical

ABSTRACT: The post.Early Cretaceous geologic development of the West Florida Slope was studied by analysis of 2,500 n.m. (4,630 km) of seismic lines and 7 core holes. Slope deposition was not a simple, continuous process, but was interrupted by significant depositional breaks that appear in the faunal record and as reflective events on seismic profiles. Sediments between these breaks are interpreted as genetically related sequences that can be mapped and used to interpret slope stratigraphy. At the end of the Early Cretaceous the present slope area was a broad shallow-water shelf which probably extended westward to the present West Florida Escarpment. This escarpment is interpreted as mostly a constructional shelf margin forming a gulfward extension of the Washita-Fredericksburg trend of Louisiana and Texas. The role of major faulting as a controlling factor in producing the escarpment was not investigated in this study, although we failed to observe major faults on our sparker data. Late Cretaceous subsidence of the shelf produced a rapid transition from shallow- to deep-water carbonates, with water depths in the order of 3,000 to 6,000 ft (900 to 1,800 m) on the outer slope by the end of the Cretaceous. Deep-water conditions prevailed throughout the Cenozoic as the area gradually filled to its present bathymetric configuration. Lowermost Tertiary beds along the outer slope commonly are crumpled and distorted. Post-Eocene topographic lows tend to be filled with Oligocene and early Miocene beds. During the middle Miocene large clinoforms of argillaceous carbonate built as progradational features from shallow-water areas on...

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ACC 2452; TYPE P; YEAR 1978
MITTERER, R.M.;
AMINO ACID COMPOSITION AND METAL BINDING CAPABILITY OF THE SKELETAL PROTEIN OF CORALS.

BIBL BULL. MAR. SCI. 28(1):173-180.

KEYWORD: Monroe, coral, scleractinian, metal, growth

ABSTRACT: Live corals were collected from Bermuda, Jamaica, and the Florida Keys and analyzed for amino acid composition of the skeletons. The protein composition was found to be dominated by aspartic acid. Aspartic acid comprises about 70% of alcyonarian skeletal protein and about 35% of the organic matrix of scleractinians. A binding study indicated the capability of spicules to bind metal ions.

Results suggest the calcified organic matrix acts as a template which initiates and controls crystal growth.

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ACC 2453; TYPE P; YEAR 1977
MITTERER, R.M.; CARTER, P.W.;
SOME ANALYTICAL AND EXPERIMENTAL DATA ON OXYGEN-CARBONATE INTERACTION.

BIBL PROC. THIRD INTERNAT. CORAL REEF SYMP., MIAMI, FLORIDA, MAY 1977.

KEYWORD: Monroe, carbonate, sediment, geochemistry, organic carbon, grain size

ABSTRACT: Differences between the organic matter of carbonate and noncarbonate sediments were investigated in sediment samples from Florida Bay and the Flower Garden Reef, offshore Texas. Results showed that the carbonate fraction as compared to the noncarbonate fraction has: 1) coarser size; 2) less total organic matter; 3) greater proportion of organic matter as amino acids; and 4) a higher aspartic acid content. Organic matter from Florida Bay sediments, which has approximately 40% aspartic acid content, was able to bind calcium, confirming the hypothesis that an aspartic acid-rich proteinaceous fraction is necessary for calcification. Aspartic acid-rich organic matter in carbonate sediments was concluded to play an instrumental role in carbonate geochemistry of marine waters.

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ACC 448; TYPE ; YEAR 1981
MODDE, T.; ROSS, S.T.;
SEASONALITY OF FISHES OCCUPYING A SURF ZONE HABITAT IN THE NORTHERN GULF OF MEXICO.

BIBL FISH. BULL. 78(4):911-922.

KEYWORD: biology, fish, species composition, surf zone, seasonality

ABSTRACT: The ichthyofauna occupying the surf zone habitat of Horn Island, Mississippi, between 1975 and 1977 was dominated by immature clupeiform fishes. The dusky anchovy, Anchoa lyolepis, and the scaled sardine, Harengula jaguana, together constitute 80.2% of the 154,469 fishes collected. The greatest number of fishes were collected in the late spring and summer, followed by a secondary peak in late winter. Occurrence of the fishes within the surf zone is divided into three categories according to seasonal utilization; spring and summer, summer only, and winter. Factors affecting numerical abundance within the surf zone differed among the most frequently appearing species. Differences in the numbers of clupeiform fishes--A. lyolepis; A. hepsetus, striped anchovy; and H. jaguana - were more closely associated with diel changes including tidal stage and time of day. The abundance of the Florida pompano, Trachinotus carolinus, and the gulf kingfish, Menticirrhus littoralis, were more dependent upon seasonal effects such as temperature.

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ACC 4100; TYPE P; YEAR 1963
MOE, M.A., JR.;
A SURVEY OF OFFSHORE FISHING IN FLORIDA.

BIBL PROF. PAP. SER. FLA. ST. BD. CONSERV. 4:1-117.

KEYWORD: fishing effort, live-bottom, commercial fishery, king mackerel, socioeconomic, grouper, snapper, red tide, recreational fishery

ABSTRACT: This generalized survey of offshore fishing in Florida is presented to provide valuable background information for future research and to report the present development of the offshore fisheries of each coastal county. The operators of vessels in the categories of commercial, party, charter, and private were contacted and were requested to report on their local offshore fishing activity. During the course of this survey 16.4% of the commercial boats, 31.9% of the party boats, 12.8% of the charter boats, and 3.4% of the private boats throughout the state reported. In all, information was obtained from a total of 4,706 boat operators. A one to two hour personal interview was conducted with the operators of the commercial, party and charter vessels. Ten percent of the registered private boat owners were contacted by a post card questionnaire and 33.6% were returned. The location, depth, bottom composition and topography, fishes taken, seasonality, and a subjective estimate of the fishing effort are reported for the major offshore fishing grounds throughout the littoral waters of Florida. The techniques and equipment used in the offshore hire and commercial fisheries throughout the State are described. The existing development of the offshore fisheries; their relationship to the geography, coastal population, and operational facilities of the coastal counties are discussed. The fishing effort in fisherman days expended by the commercial, party, and charter boats is broken down to surface and bottom effort and tabulated for each coastal county. The major offshore fishes are listed by primary common name, scientific nam...

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ACC 4101; TYPE P; YEAR 1969
MOE, M.A., JR.;
BIOLOGY OF THE RED GROUPER, EPINEPHELUS MORIO (VALENCIENNES), FROM THE EASTERN GULF OF MEXICO.

BIBL FLA. DEPT. NAT. RES. PROF. PAP. SER. 10. 95 P.

KEYWORD: biology, reeffish, commercial fishery, grouper, recreational fishery

ABSTRACT: Monthly and aperiodic samples of otoliths and gonads were collected from sport and commercial catches of red grouper taken off the Florida central west coast from May 1963 through August 1967. Age was determined for 1176 fish and histological sections were prepared from 692 gonads. An additional 98 ripe fish were sexed in the field. Otoliths were cleared, stored in glycerol, and read under reflected light with a dissecting microscope. Gonads were fixed in Bouin's fluid, embedded in paraffin, sectioned transversely at 6 to 10 u and stained with Harris' hematoxylin and eosin and Masson's trichome. Oogenesis and spermatogenesis are each described in 5 stages of development. Zonation and rejuvenilization of oocytes and formation of atretic bodies in post-spawning ovaries are described and discussed. Seasonal and developmental gonadal changes are described in 10 classes; immature female, mature resting female, mature active female, postspawning female, transitional, immature male, mature inactive male, ripening male, ripe male, and postspawning male. The relationship of otolith radius to SL is linear, r=0.986. Time of annulua formation was determined from the variation of mean marginal increment of otoliths from each age group during all months. Age groups I through 4 form the annulus from March to May and age groups 5 through 10 form the annulus from May to July. Spawning and associated physiological processes seem to be the primary cause of annulus formation. Growth curves developed from empirical data, back-calculation of body length and the von Bertalanffy growth equation lt-672(l-e to the -0.179(t+0.449)th agre...

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ACC 4102; TYPE P; YEAR 1977
MOFJELD, H.O.; WIMBUSH, M.;
BOTTOM PRESSURE OBSERVATIONS IN THE GULF OF MEXICO AND CARIBBEAN SEA.

BIBL DEEP.SEA RES. 42:987-1004.

KEYWORD: currents, pressure, physical, oceanography, tide, meteorology

ABSTRACT: During 1971 to 1974, offshore pressure gages were deployed in the Gulf of Mexico and the Caribbean Sea to measure tides and bottom pressure continuum. The observations indicate that the Gulf of Mexico has a Helmholtz resonance with a period of 1.56d. While the lack of confidence limits on theoretical cotidal charts hinders the comparison between theory and observation, the latter tend to support a model with direct astronomical forcing. The observations in the Caribbean Sea verify the general features of theoretical cotidal charts. At a six-month long station in the Eastern Caribbean, bottom pressure fluctuations with 4 to 5-d period are coherent and in phase with atmospheric waves in the Easterlies. The inverse barometer compensation appeared to be less complete in this semienclosed sea, spanned by weather systems, than in the open ocean. An appendix gives corrections to the response method of tidal analysis, the procedure for converting the results to harmonic constants with error estimates, and tables of analytical results.

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ACC 4105; TYPE 0; YEAR 1978
MOLINARI, R.J.; FESTA, J.F.; BEHRINGER, D.W.;
THE CIRCULATION IN THE GULF OF MEXICO DERIVED FROM ESTIMATED DYNAMIC HEIGHT FIELDS.

BIBL J. PHY. OCEANOGR. 8(6):987-996.

KEYWORD: circulation, loop current, physical, oceanography, hydrography, dynamic height, seasonality

ABSTRACT: Monthly mean dynamic height topographies for the upper 500 m of the Gulf of Mexico, seasonal mean topographies for the upper 1000 m and annual topogaphies for the deep flow are presented. The dynamic height values on a 1 degree x 1 degree grid were determined from observed temperature values and salinities derived from mean T.S relations. The seasonal intrusion of the Loop Current is observed and found to vary directly with the geostrophic transport through the Yucatan Straits. At the Straits, the transport in the upper 500 m is a maximum in June. The transports in the upper 500 m of an anticyclone in the western Gulf are a maximum in winter and summer, and a minimum in spring and fall. There is a permanent westerly flow on the Texas Shelf. After turning cyclonically, this flow joins the eastward transport of the northern limb of the anticyclone in the western Gulf of Mexico. Most of this eastward flow recirculates in the anticyclone; however, a portion flows east across the central Gulf to become entrained in the Loop Current. The deep circulation between 1500 and 3000 m is dominated by an anticyclonic gyre which fills the entire deep basin.

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ACC 4103; TYPE P; YEAR 1977
MOLINARI, R.L.; BAIG, S.; BEHRINGER, MAUL; G.A.;LEGECKIS, R.;
WINTER INTRUSTIONS OF THE LOOP CURRENT.

BIBL SCIENCE 198:505-507.

KEYWORD: intrusion, loop current, circulation, physical, oceanography, remote sensing, hydrography, temperature

ABSTRACT: Sea-surface temperature data obtained from satellite and subsurface temperature data obtained from ships are used to determine the intrustion of the Loop Current into the Eastern Gulf of Mexico from November 1974 to the present. The Loop Current extended considerably farther to the north during the last three winters than has been observed previously.

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ACC 4104; TYPE P; YEAR 1976
MOLINARI, R.L.; BEHRINGER, D.W.; FESTA, J.F.;
MODEL STUDIES OF THE CIRCULATION IN THE GULF OF MEXICO.

BIBL A FINAL REPORT TO THE U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT. CONTRACT NO. 08550-IA5-26. 144 P.

KEYWORD: physical, oceanography, circulation, numerical model

ABSTRACT: The Atlantic Oceanographic and Meteorological Laboratories of the National Oceanic and Atmospheric Administration have completed the first year of a proposed two-year study for the Bureau of Land Management "to develop the capability to predict the currents in the Gulf of Mexico for use in pollutant trajector computation". The objectives of the study were: (1) to modify an existing numerical model for application in the Gulf of Mexico; (2) to evaluate the ability of the model to simulate the Gulf circulation using various types and distributions of data as input information; and (3) to describe the Gulf of Mexico circulation using the results of the model. The formulation of the numerical model and the modifications made are given in the portion of this report entitled "A Guide to a General Circulation Model of the Gulf of Mexico." The data used by the model as interior and boundary conditions were obtained from the National Oceanographic Data Center, and from cruises conducted as part of the present study. The manipulations used to put the data into a form suitable for input to the model are described in the section called "Model Studies of the Circulation in the Gulf of Mexico." The ability of the numerical model to simulate the observed circulation is demonstrated through a series comparisons of its solutions with solutions from a geostrophic model. These comparisons are made over a wide range of input and bounary conditions. Therefore, the use of the numerical model results to describe the currents of the region is justified. The circulation of the Gulf of Mexico at monthly increments is simulated by both model...

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ACC 4262; TYPE P; YEAR 1977
MOLINARI, R.L.; FESTA, J.F.;
OCEAN THERMAL PROPERTIES IN RELATION TO THE BIOFOULING AND CORROSION EXPERIMENT IN THE GULF OF MEXICO.

PRESENTED AT OCEAN THERMAL ENERGY CONVERSION (OTEC) BIOFOULING AND CORROSION SYMPOSIUM, SEATTLE, WA (USA).

BIBL PACIFIC NORTHWEST LABORATORY, RICHLAND, WA.

KEYWORD: fouling, water mass, diversity, loop current, storm, upwelling, temperature, chemistry, nutrients

ABSTRACT: Ocean thermal properties at a Gulf of Mexico biofouling and corrosion test site are reviewed in relation to their potential effects on biofouling rates. Primary biological differences in water masses affecting the site are discussed. Deep basin waters have less productivity, greater species diversity, and different dominant species than shelf and estuarine waters. Thermal characteristics of various water masses are included to aid interpretation of biofouling results. Frequency of occurrence of several events affecting the site are also given. Loop current eddies which transport deep basin chemical and biological species to the site have been observed from 2 to 4 times in 10 different yr. A table is presented showing number of monthly occurrences of tropical storms and hurricanes which can upwell deep chemical and biological species to the surface.

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ACC 1034; TYPE ; YEAR 1982
MOLINARI, R.L.; MAYER, D.A.;
CURRENT METER OBSERVATIONS ON THE CONTINENTAL SLOPE AT TWO SITES IN THE EASTERN GULF OF MEXICO.

BIBL J. PHYS. OCEANGR. 12:1480-1492.

KEYWORD: loop current, bottom current, continental slope, currents, meteorology, physical oceanography, tide, wind, seasonality

ABSTRACT: Current-meter observations obtained at two sites on the continental slope of the eastern Gulf of Mexico, at nominal positions of 29 N, 88 W (the Mobile site) and 27.5 W (the Tampa site) are presented. Data were collected at three levels at Mobile (90, 190, and 980 m) from July 1977 through August 1978 and at four levels at Tampa (150, 250, 550 and 950 m) from June 1978 through June 1979. At 90 and 190 m, the flow at Mobile was on the average to the east. Sustained periods of flow to the west were observed during the summer 1977 and spring 1978. During the periods of eastward flow the wind was generally out of the north and during the periods of westward flow, the wind was out of the east. The flow at the top meter at Tampa was on the average to the west, in the same direction as the average wind. At both sites. the motions are perturbed by events associated with the Loop Current. These events make it difficult to define any seasonal variability in the upper layers. The flow at the bottom meters is strongly aligned with the bottom topography and lacks a strong seasonal signal. Little barotropic tidal energy was observed at either site. At both sites, maximum diurnal energy occurred near the local inerital frequency at the

upper levels. These motions are probably induced by either cold-front passages or other atmospheric events. At the bottom meters, maximum diurnal-band energy occurred near the Kl-tidal constituent. These motions are strongly time-dependent and they may be related to internal tides.

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ACC 4193; TYPE P; YEAR 1977
MONAGHAN, P.H.; MCAULIFFE, C.D.; WEISS, F.I.;
ENVIRONMENTAL ASPECTS OF DRILLING MUDS AND CUTTINGS FROM OIL AND GAS EXTRACTION OPERATIONS IN OFFSHORE AND COASTAL WATERS.

BIBL PROC. ANNU. OFFSHORE TECHNOL. CONF. 9(1):251-260.

KEYWORD: drill cutting, pollution, offshore drilling, drilling mud, drilling fluid

ABSTRACT: Not available.

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ACC 4195; TYPE P; YEAR 1975
MONTALVO, J.G., JR.; MCKOWN, M.M.;
ENVIRONMENTAL IMPLICATIONS OF SEDIMENT BULK ANALYSIS TECHNIQUES FOR TRACE METALS IN OFFSHORE WELL-DRILLING OPERATIONS.

BIBL ENVIRON. ASPECTS CHEM. USE WELL.DRILL. OPER. CONF. PROC. 357-385.

KEYWORD: sediment, trace metal, offshore drilling, pollution

ABSTRACT: Not available.

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ACC 2454; TYPE P; YEAR 1978
MONTGOMERY, R.T.;
ENVIRONMENTAL AND ECOLOGICAL STUDIES OF THE DIATOM COMMUNITIES ASSOCIATED WITH THE CORAL REEFS IN THE FLORIDA KEYS, VOL. I.

BIBL PH.D. THESIS. FLA. STATE UNIV.

KEYWORD: Monroe, geographic, seasonal, substrate, reef, coral, distribution, seasonality

ABSTRACT: The geographic and seasonal variations, and various aspects of the substrates of the benthic diatom floras of reefs in the keys region were investigated. Results of studies on the effects of coral species, complexity and substrate, period of colonization, and area of substrate on diatom community structure are discussed. Similar diatom communities from different substrates varied only in density. There was a direct relationship between diversity and habitat complexity.

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ACC 2455; TYPE P; YEAR 1977
MONTGOMERY, R.T.; MILLER, W.I.; COLLIER, A.W.;
A PRELIMINARY INVESTIGATION OF THE STRUCTURE OF THE DIATOM COMMUNITIES ASSOCIATED WITH THE REEF HABITATS OF THE FLORIDA KEYS.

BIBL PROC. THIRD INTERNAT. CORAL REEF SYMP. 1:357-363.

KEYWORD: Monroe, community, reef, habitat, benthic, diversity, seagrass, substrate, nutrient, phytoplankton

ABSTRACT: The structures of benthic diatom communities associated with coral reefs in the Florida Keys were analyzed and compared. The species richness and diversity of diatom floras from the coral sand bottom, adjacent seagrass beds, and different zones of the reef structure were compared at 3 different reefs. Diatom density was high in all substrates. The number of species was directly related to the degree of habitat complexity. Diatom communities from similar substrates exhibited a high degree of similarity. It was suggested that because of the continual replenishment of nutrients by bacterial populations associated with reef surfaces, benthic diatom populations may not be nutrient limited.

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ACC 2199; TYPE P; YEAR 1981
MOOK, D.;
REMOVAL OF SUSPENDED MATERIALS BY FOULING COMMUNITIES.

BIBL MAR. ECOL. PROG. SER. 5:279-281.

KEYWORD: fouling, sponge, suspended, community, temperature, salinity, hydroids

ABSTRACT: Fouling communities from the Indian River, consisting primarily of barnacles (Balanus eburneus), bryozoans (Bugula sp.), tube building amphipods (Corophium lacustre), hydroids, and sponges were studied to determine their role in removal of suspended particles. Particle consumption rates and particle size preference were measured with a coulter counter. Suspended particles of all sizes between 1 and 40 um were removed by the fouling communities with no size preference. Fecal particles emitted by some fouling species in the size range 1.5-5.5 um and >25 um may serve as a food source for other species of the community.

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ACC 2552; TYPE P; YEAR 1976
MOOK, D.;
FOULING STUDIES, CHAPTER 9.

BIBL IN: HARBOR BRANCH CONSORTIUM INDIAN RIVER COASTAL ZONE STUDY. 1975-1976. ANNU. REPT. 1.

KEYWORD: fouling, seasonality, growth, seagrass

ABSTRACT: A review of the fouling studies in the Indian River region was presented. The majority of fouling invertebrates on the Indian River were inventoried. The seasonality of settlement was described for many animals. The growth and settlement of some fouling animals were found to be inhibited in seagrass beds, and experiments are underway to determine the reason for this apparent inhibition. Preliminary experiments have shown that non-selective artificial predation increased species diversity but not the ranking of chief species, and that selective natural predation did not change species diversity, but did alter the rank order of dominant species. More comprehensive experiments are being conducted on effects of predation.

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ACC 2555; TYPE P; YEAR 1977
MOOK, D.;
STUDIES ON FOULING INVERTEBRATES IN THE INDIAN RIVER, FLORIDA 2: EFFECT OF MODULUS MODULUS (PROSOBRANCHIA: MODULIDAE).

BIBL THE NAUTILUS 91(4):134-136.

KEYWORD: fouling, seagrass, mollusc

ABSTRACT: The build up of fouling invertebrates on tiles placed among seagrass blades was determined to be considerably less than on tiles placed in adjacent areas devoid of seagrass. Snail counts and the results of caging experiments suggested that the grazing action of Modulus modulus may retard the buildup of fouling organisms on surfaces within the grassbeds.

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ACC 2200; TYPE P; YEAR 1981
MOOK, D.H.;
EFFECTS OF DISTURBANCE AND INITIAL SETTLEMENT ON FOULING COMMUNITY STRUCTURE.

BIBL ECOLOGY 62(3):522-526.

KEYWORD: community, fouling, predation

ABSTRACT: The community structure of fouling organisms which settled on ceramic tiles in the Indian River, Florida was examined from November 1976 to October 1978. Treatments in which predation pressure was artificially increased or initial species composition was varied had no effect on community structure. Predator exclusion experiments altered the species composition of the fouling community, increasing the abundance of species which are normally eliminated by grazing.

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ACC 2124; TYPE P; YEAR 1980
MOON, R.E.; KRUMREI, T.N.; & MARTIN, D.F.;
AN INVESTIGATION OF COMPOUNDS CYTOLYTIC TOWARD THE RED TIDE ORGANISM PTYCHODISCUS BREVIS (DAVIS) STEIDINGER, FROM FLORIDA MARINE SEDIMENTS.

BIBL MICROBIOS. LETT. 14:7-15.

KEYWORD: sediment, chemical, biological, red tide, bacteria

ABSTRACT: Analysis of sediment samples from 15 stations along Florida's west coast revealed similar chemical and biological characteristics to aponin, a substance produced by the cyanobacteria Gonphosphaeria aponina which is cytolytic towards the Florida red tide organism Ptychodiscus brevis. Chemical activity was demonstrated by two chromatographic techniques and biological activity of sediment extracts was examined with cytolytic and fungicidal bioassays. The widespread distribution of cytolytic agents in marine sediments and their potential use in controlling P. brevis proliferation are discussed.

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ACC 333; TYPE ; YEAR 1970
MOORE, D.; BRUSHER, H.A.; TRENT, L.;
RELATIVE ABUNDANCE, SEASONAL DISTRIBUTION AND SPECIES COMPOSITION OF DEMERSAL FISHES OFF LOUISIANA AND TEXAS, 1962-1964.

BIBL BIOLOGICAL LABORATORY, BUREAU OF COMMERCIAL FISHERIES, GALVESTON, TX. CONTRIB.303.

KEYWORD: biology, catch statistics, coastal water, fishery, trawl fishery, demersal fish, seasonality

ABSTRACT: Not available.

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ACC 2028; TYPE P; YEAR 1963
MOORE, D.R.;
DISTRIBUTION OF THE SEAGRASS, THALASSIA, IN THE UNITED STATES.

BIBL BULL. MAR. SCI. GULF CARIBB. 13(2):329-342.

KEYWORD: seagrass, temperature, depth, turbidity, salinity, wave, distribution

ABSTRACT: A discussion of the distribution of Thalassia testudinum in the U.S. was presented. Ecological factors limiting the distribution of turtle grass include temperature, water depth, turbidity, salinity, and wave action. Gaps in distribution were determined to be due to one or more unfavorable conditions. Aquatic

populations derive both food and shelter from grassy areas.

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ACC 2125; TYPE U; YEAR 1965
MOORE, D.R.;
MICROMOLLUSCS.

BIBL REPT. .TO BLM ON SMALL MOLLUSCS COLLECTED IN THE MAFLA AREA DURING 1975-76. UNPUBL. REPT. U.S. DEPT INT., BLM, WASHINGTON, DC. 48 P.

KEYWORD: mollusc, continental shelf, productivity, sediment, depth, temperature, salinity, DO, distribution

ABSTRACT: This report present the results of the micromolluscs study of the Bureau of Land Management sponsored program in the Mississippi-Alabama-Florida (MAFLA) outer continental shelf. A total of 317 live specimens and 24,443 dead specimens were collected from small subsampling cores. The author summarizes the results as follows: Live collected micromolluscs were no abundant in the subsamples due to the small surface area of the cores. Enough material was collected, however, to make some basic assumptions: 1) Small molluscs are relatively abundant in shallow water (<50 m) in the northeastern Gulf of Mexico (about 700/square meters). 2) Small molluscs are uncommon on the deeper shelf (50 to 186 m) in this area (about 125 per square meter). 3) The continental shelf from Cape San Blas, Florida, to the Chandeleur Islands is an area of low productivity for molluscs. 4) Live bivalves are more abundant than live gastropods. 5) Browsing gastropods are rare in depths of more than 50 m. 6) Browsing gastropods are extremely rare in areas with such fine sediment. 7) Two most important factors influencing abundance and distribution of small molluscs are sediment type and depth of water.

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ACC 2519; TYPE P; YEAR 1972
MOORE, H.B.;
AN ESTIMATE OF CARBONATE PRODUCTION BY MACROBENTHOS IN SOME TROPICAL SOFT BOTTOM COMMUNITIES.

BIBL MAR. BIOL. 17(2):145-148.

KEYWORD: Dade, carbonate, community, invertebrate, productivity

ABSTRACT: Studies of the soft bottom macrobenthos of Biscayne Bay, Florida have provided productivity figures in the form of the ratio of annual somatic production to standing crop for most resident species. In this paper, the values were converted to carbonate productivity ratios, which were used to calculate carbonate production per square meter per year. The values ranged from less than 1 g to nearly 400 g for subtidal communities and approximately 1 kg for one intertidal area.

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ACC 2547; TYPE P; YEAR 1962
MOORE, D.R.;
NOTES ON THE DISTRIBUTION OF THE SPINY LOBSTER PANULIRUS IN FLORIDA AND THE GULF OF MEXICO.

BIBL CRUSTACEANA 3(4):318-319.

KEYWORD: spiny lobster, reef, distribution

ABSTRACT: Observations of many Panulirus living in caves and holes in the rocky reefs of the east coast, (primarily Palm Beach and also Hobe Sound) were reported. The common species is P. argus and it is abundant throughout the year. P. guttatus, quite rare, was never found living in areas occupied by P. argus. Although only occasionally seen, it was present year round. P. laevicauda, not seen until April 1949, became almost as common as P. argus but after the 1949 invasion no more specimens were found. Panulirus is not fished commercially in the Palm Beach area. Record show P. argus as far north as North Carolina, but there are no records for the northern Gulf of Mexico. It is suggested that there are considerable numbers of P. argus on suitable rocky bottom in the northern Gulf of Mexico, but in deep water too deep and too far offshore to be fished commercially.

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ACC 4106; TYPE P; YEAR 1984
MOORE, C.M.; LABISKY, R.F.;
POPULATION PARAMETERS OF A RELATIVELY UNEXPLOITED STOCK OF SNOWY GROUPER IN THE LOWER FLORIDA KEYS.

BIBL TRANS. AM. FISH. SOC. 113:322-329.

KEYWORD: biology, demersal fish, commercial fishery, fish, ecology, grouper, life history, reproduction, coastal, growth, mortality

ABSTRACT: Age, growth, mortality, and reproduction of a relatively unexploited stock of snowy grouper Epinephelus niveatus from the lower Florida Keys, were studied during April 1978-July 1981. Biological statistics were derived from 309 snowy grouper. Ages, determined by otolith sectioning, ranged from 0 to XXCII. Back calculated mean total lengths (TL) ranged from 209 mm at the end of year 1 to 909 mm at the end of year 15. The von Bertalanffy growth equation for snowy grouper was $L = 1{,}320(1-\exp\{.0.087(t + 1.013\})$, where L = total length (mm) and t - age (years). Annual mortality, determined by catch-curve analysis, was 16%. Full recruitment into the fishery occurred at 575-600 mm TL and at age VIII. The snowy grouper exhibited protogynous hermaphroditism. Most females (81%) were sexually mature by age IV to V. Males did not appear until age VI, but they comprised 40% of all fish of ages VIII or older. These biological findings preliminarily suggest that snowy grouper stocks in the Florida Keys cannot support an extensive and sustained commercial fishery.

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ACC 4107; TYPE P; YEAR 1951
MOORE, J.C.;
THE RANGE OF THE FLORIDA MANATEE.

BIBL QUART. J. FLA. ACAD. SCI. 14(1):1-19.

KEYWORD: migration, manatee, distribution, mammal, endangered species, coastal

ABSTRACT: Using previous accounts and direct observation during the years 1941 to 1951, the range of the Florida manatee is charted. The status of the animal population is evaluated throughout its range.

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ACC 2299; TYPE P; YEAR 1968
MORRILL, J.B.;
REPORT ON A BIOLOGICAL SURVEY OF THE TIDAL FLATS AND SHORELINE OF THE BAY POINT AREA.

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Sarasota, pollution, turbidity, dredging

ABSTRACT: The vegetational patterns of the Bay Shore area indicate that as a result o natural processes, there has been and continues to be stabilization and land building along the shore and filling in of the tidal zone adjacent to the shore. The absence of many typical tidal flat organisms in the cove and along the Bay front may be due to: pollution or enrichment from effluents entering the Grand Canal immediately to the south and Coconut Bayou to the north; freshwater flow into the Cove via drainage ditches; relatively weak tidal flushing and circulatory patterns in the Cove; high turbidity in the inshore water resulting from the dredged Intracoastal Waterway channel; plus intensive boat traffic in and adjacent to the waterway.

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ACC 2300; TYPE P; YEAR 1968
MORRILL, J.B.;
REPORT ON A BIOLOGICAL SURVEY OF THE TIDAL FLATS AND SHORELINE OF ICARD ISLAND, EMERALD ISLES AREA, BOWLEES CREEK, SARASOTA BAY, FLORIDA.

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Sarasota, invertebrate, benthic, algae, seagrass, oyster

ABSTRACT: The intertidal zone within the Manatee County bulkhead line surrounding Icard Island was determined to consist mainly of a sandy mud bottom with the snail Batillaria minima being the most abundant macroinvertebrate. In addition, the zone was populated by small oyster bars, scattered clumps of coon oysters and ptches of Cuban shoal grass. The greatest numbers of invertebrate species appeared to occur in the turtle grassbeds outside the bulkhead line or in the shoal grassbeds in the lower levels of the intertidal zone. In general, the intertidal zone between the south side of the Island and the oyster bars bordering Bowless Creek and the intertidal zone between the north side of the Island and the channel to the north produced less benthic invertebrates than the shoal grass areas to the west and north of the Island. Turtle grass, occurring mainly outside the bulkhead line and below the mean low water, had a greater dry weight per unit bottom surface area than did the shoal grass that occurred in the intertidal zone. The latter grass displayed atidal zonation in which the size of the grass patches and the dry weight per unit area were markedly reduced in the higher intertidal areas within the bulkhead line. Fish species which graze on the bottom invertebrates and sessile algae attached to oyster shells were reported. Birds of the area were also listed. A hydrographic survey was conducted.

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ACC 2301; TYPE P; YEAR 1970
MORRILL, J.B.;
BIOLOGICAL SURVEY OF SUBMERGED LANDS IN THE VICINITY OF THE PROPOSED WATERGATE CENTER BOATEL, SARASOTA BAY, CITY OF SARASOTA, SARASOTA COUNTY, FLORIDA

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Sarasota, currents, algae, seagrass, oyster

ABSTRACT: A description of the proposed Watergate Center boatel in Sarasota Bay was presented with attention to existing grass flats, tidal currents and seawall communities. It was suggested that the fringe of coon oysters and marine grasses would be eliminated, there would be a considerable growth of bacteria and blue-green algae below the oyster zone, the bottom would become a rich, organic silt, and that development of anaerobic conditions, at depths greater than five to seven feet would occur. The consequences of developing marinas and recommendations for maintaining and improving the quality of the marine environmental [sic] in the boatel area were presented.

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ACC 2302; TYPE P; YEAR 1970
MORRILL, J.B.
NEW COLLEGE ENVIRONMENTAL STUDIES CLASS PROJECT ON OTTER KEY AND DEVILFISH KEY, FLORIDA.

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF THE UNIV. SOUTH FLA.

KEYWORD: Sarasota, invertebrate, seagrass

ABSTRACT: New College (University of South Florida) Environmental Studies Class Project on Otter Key (Sarasota Bay) and Devilfish Key (Charlotte

Harbor) presented data on numbers of invertebrate species, species of seagrass and maps of seagrasses.

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ACC 2303; TYPE P; YEAR 1972
MORRILL, J.B.;
BAYSIDE FIELD LAB; APPROACHES TO A MODEL ECOSYSTEM.

STUDENT REPORTS AVAILABLE ONLY THROUGH J.B. MORRILL, NEW COLLEGE AT UNIVERSITY OF SOUTH FLORIDA ENVIRONMENTAL STUDY PROGRAM.

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Sarasota, invertebrate, temperature, salinity, DO, nutrient, tide

ABSTRACT: A compilation student-collected biological data for the Bayside Club, Siesta Key, Sarasota, Florida is presented. Specialists for benthic invertebrates are included.

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ACC 2304; TYPE P; YEAR 1972
MORRILL, J.B.;
SOUTH COCONUT BAYOU RESEARCH PROJECT.

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Sarasota, benthic, abundance, temperature, DO

ABSTRACT: A compilation of data collected from Coconut Bayou was presented. Benthic data included species lists and abundances.

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ACC 2305; TYPE P; YEAR 1974
MORRILL, J.B.;
THE SUBMERGED AND SHORELINE VEGETATION OF THREE CANAL SYSTEMS, SIESTA KEY, FLORIDA, PRELIMINARY OBSERVATIONS AND RECOMMENDATIONS.

BIBL PROC. OF THE FIRST ANNU. CONF. ON RESTORATION OF COAST. VEGETATION IN FLA. P. 39.

KEYWORD: Sarasota, currents, depth, seagrass, water quality

ABSTRACT: Three manmade canals in Siesta Key were studied in 1972 for distribution of grasses and water quality. Recommendations for management are: canal design for optimal tidal flushing; pruning of vegetated shorelines; removal of aquatic plants and floating debris; and aeration of bottom waters in dead end canals.

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ACC 2306; TYPE P; YEAR 1978
MORRILL, J.B.;
SOUTH LIDO KEY STUDIES.

BIBL ENVIR. STUDIES PROGRAM REPORT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Sarasota, seagrass, currents

ABSTRACT: Student collected data on benthic studies in Brushy Bayou, South Lido Key, Florida are presented and include information on seagrass dry weights, current measurements, and grassbed mappings.

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ACC 2307; TYPE P; YEAR 1969
MORRILL, J.B.; BLAIR, C.;
A BIOLOGICAL AND ECOLOGICAL SURVEY OF THE SUBMERGED LANDS IN THE PROPOSED BAY HARBOR DEVELOPMENT, SIESTA KEY, FLORIDA.

BIBL ENVIR. STUDIES PROGRAM REPORT. NEW COLLEGE OF THE UNIV. SOUTH FLA.

KEYWORD: Sarasota, invertebrate, blue crab, nutrient, temperature, salinity, sea grass, mulet, oyster

ABSTRACT: The survey of the submerged lands in the proposed Bay Harbor Development, Sarasota, Florida included descriptions, diagrammatic maps and aerial photographs of the mangrove swamps and submerged lands. Overall, the sandy mud bottom and grass flats in the lagoon were found to have fewer and less diverse macrobenthic invertebrates than similar areas on the tidal flats in Roberts Bay, indicating that the biological productivity of the lagoon is less than the bay. Other than intertidal coon oysters, commercial shellfish were not observed in the lagoon. Blue crabs, killifish and mullet were present. It was concluded that the lagoon's major role in the Bay's economy is to furnish nutrients. Recommendations for preserving and restoring the marine environmental relative to the proposed development were presented.

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ACC 2308; TYPE P; YEAR 1968
MORRILL, J.B.; DONALDSON, S.;
OBSERVATIONS OF A SEAWALL COMMUNITY.

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Sarasota, fouling, currents, substrate, tides

ABSTRACT: Collections and observations of organisms in the fouling community as well as data on

currents, substrate, tides, and illumination are reported. Vertical zonation is discussed.

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ACC 2309; TYPE P; YEAR 1974
MORRILL, J.B.; DENARVAEZ, C.; FOSTER, R.; AYER, F.B.; CONNOR, E.;
HYDROGRAPHY OF THE GRAND CANAL AND HERON LAGOON WATERWAYS, SIESTA KEY, FLORIDA.

BIBL REPT. BY DIV. NAT. SCI., NEW COLLEGE AT UNIV. SO. FLA., SARASOTA. FLORIDA. 47 P.

KEYWORD: Sarasota, hydrography, bathymetry, pollution, temperature, salinity, DO, currents, turbidity, nutrient, physiography

ABSTRACT: Information on the history of the two lagoonal sites, the physiography and bathymetry, sources of pollution and hydrography were reported. Of the two canal systems studies, the overall water quality and diversity of marine life was found to be greater in the Heron Lagoon system than in the Grand Canal system. It was determined that the primary cause of "undesirable" water quality conditions (the development of organically rich, soft bottom sediments and their communities of macro and microorganisms) was poor tidal circulation.

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ACC 2328; TYPE P; YEAR 1969
MORRILL, J.W.; NEEDHAM, N.;
A BIOLOGICAL SURVEY OF THE SUBMERGED LANDS IN THE PROPOSED PORTOFINO DEVELOPMENT. CAPE HAZE-PLACIDA, CHARLOTTE COUNTY, FLORIDA.

BIBL ENVIR. STUD. PROG. REPT. NEW COLLEGE OF UNIV. SOUTH FLA.

KEYWORD: Charlotte, mollusc, fishery, invertebrate, salinity, seagrass

ABSTRACT: The immediate consequences of the proposed Portofino development include: 1) loss of some existing mangroves; 2) loss of some Spartina grass patches and sandy beach; 3) loss of the sandy, mud beach zone; 4) loss of some Cuban shoal weed inside the bulkhead line; and 5) loss of some turtle grass area. Recommendations to minimize damage to the surrounding bottoms and waters are made for the three areas. The presence of a relatively rich mollusc fauna north and to a lesser extent south of the spoil area demonstrates the waters of Placida Harbor are not polluted and that these grassflats continue to function as a fishery resource.

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ACC 4108; TYPE P; YEAR 1977
MORRISON, J.M.; NOWLIN, W.D.;
REPEATED NUTRIENT, OXYGEN, AND DENSITY SECTIONS THROUGH THE LOOP CURRENT.

BIBL J. MAR. RES. 35(1):105-128.

KEYWORD: physical, oceanography, nutrient, hydrography, circulation, currents, loop current, chemical

ABSTRACT: Based on observations made in May 1972, the nutrient and dissolved-oxygen concentrations in the offshore waters of the eastern Gulf of Mexico are described and related to the Loop Current and anticyclonic current rings, which are the principal circulation features of this region. The characteristic relationships of oxygen and nutrients to density parameters are presented, and the following water masses are characterized in the Gulf: Subtropical Underwater, 18 degrees C Sargasso Sea Water, upper subtropical oxygen minimu, Antarctic Intermediate Water, and North Atlantic Deep Water. Repeated sections through the Loop Current allow some estimation of variability within a period of weeks, as well as descriptions of spatial variations of properties. The relative geostrophic flow within the Loop is described. Transport estimates are compared to previous estimates of the Loop and to estimates through the Yucatan and Florida Straits based on measurements also made during May 1972. The results are in good agreement; values for the total transport of the current are approximately 30 x 10 to the 6th cubic meter sec to the -lst, while for the waters above ot = 27.0 mg cubic centimeter a value near 23 x 10 to the 6th cubic meter sec to the -lst is obtained.

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ACC 1096; TYPE ; YEAR N/AH
MOSHIRI, G.B.;
BAYOU TEXAR PROJECT.

BIBL UNIVERSITY OF WEST FLORIDA, WATER RESOURCES RESEARCH CENTER.

KEYWORD: ammonia, carbohydrates, copper, organic carbon, dissolved oxygen, EH, BOD, water quality

ABSTRACT: Bayou Texar, off Pensacola Bay, Florida, was studied extensively from March, 1971 to May, 1976. Water quality analyses were carried out biweekly at 31 to 6 stations in the bayou. Other analyses include measurements of phytoplankton populations, photosynthetic and heterotrophic rates, and water and sediment microbiota. Generally, water samples were filtered before analyses were made of the various parameters.

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ACC 1097; TYPE ; YEAR N/AH
MOSHIRI, G.A.;
MULATTO BAYOU STUDY.

BIBL UNIVERSITY OF WEST FLORIDA, WATER RESOURCES RESEARCH CENTER.

KEYWORD: ammonia, carbohydrates, carbon, copper, organic carbon, dissolved oxygen, EH, water quality

ABSTRACT: Mulatto Bayou, off Escambia Bay, Florida, was monitored with respect to water quality from June, 1972 to April, 1975. Fourteen water quality parameters were measured biweekly at 3 stations from surface and bottom water samples. Samples were filtered before analyses were made, except for field measurements. Limited sediment data also exists.

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ACC 4109; TYPE P; YEAR 1983
MOTE MARINE LABORATORY;
CHARLOTTE HARBOR HYDROCARBON STUDY, YEAR 2.

BIBL FINAL REPORT TO THE FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 136 P.

KEYWORD: biology, mollusca, oil spill, coastal, hydrocarbon, pollution, chemistry, oyster, water column, sediment

ABSTRACT: Hydrocarbon content and characterization was obtained for surficial sediment, oysters and water from four areas in Charlotte Harbor. Each area represents a different type of land use activity including residential development canals; municipal and industrial impact; commercial fishing and marine industry facilities; and a nondeveloped control area. Residential canal systems contained petroleum contamination resulting from marinas and a highway service station area. This contamination was indicative of crankcase oil which diminished with distance from the source. Total hydrocarbon content of canal sediment ranged from over 50 mg/g sediment at a marina to less than 5 ug/g at nonimpacted areas. Biogenic hydrocarbons exhibiting chromatographic patterns that mimic some petroleum characteristics were observed in certain areas, showing the importance of obtaining pre-oil spill data for accurate interpretation of oil spill impact. The highest contamination was observed at commercial fishing docking areas. This contamination was indicative of a low to mid boiling range fuel oil and attained a concentration of 142 ug/g sediment, relative to less than 5 ug/g in unimpacted areas. Oyster samples generally reflected the contamination observed in sediment. Water samples contained different hydrocarbon patterns than oysters or sediment. Inferences drawn from water data would be more reliable had funds been available for repetitive sampling over several tidal cycles. This investigation has characterized hydrocarbon contamination from specific land use activities around Charlotte Harbor, as well as background hydrocarbon data fro...

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ACC 715; TYPE ;YEAR 1973
MULKANA, M.S.; ABBOTT, W.;
NUTRITIONAL COMPONENTS OF THE STANDING PLANKTON CROP IN MISSISSIPPI SOUND.

BIBL GULF RES. REP. 4(2):300-317.

KEYWORD: biology, biomass, caloric content, plankton, productivity

ABSTRACT: Not available.

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ACC 873; TYPE ; YEAR 1968
MULKANA, M.S.;
SEASONAL CHANGES IN THE NUTRITIONAL COMPONENTS OF THE STANDING PLANKTON BIOMASS IN MISSISSIPPI SOUND.

BIBL PH.D. DISSERTATION. MISSISSIPPI STATE UNIVERSITY. 87 P.

KEYWORD: carbohydrates, lipid, phytoplankton, protein, salinity, temperature, zooplankton

ABSTRACT: Studies on seasonal changes in the nutritional components of plankton biomass in Mississippi Sound were made from April, 1965, to September, 1966. Standing biomass and nutrition available from net plankton and from nannoplankton were estimated.

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ACC 2229; TYPE P; YEAR 1959
MULLINS, A.T.;
A STUDY OF MARINE TERRIGENOUS SEDIMENTS FROM THE GULF OF MEXICO.

BIBL M.S. THESIS. FLA. STATE UNIV., TALLAHASSEE, FL.

KEYWORD: sediment, grain size, heavy metal

ABSTRACT: Thirty eight sediment samples were collected from a 45 sq. mi. area south of St. George Island, Florida, and analyzed for composition and grain size parametes. Fourteen types of heavy metals were identified, two of which were authigenic. Sediment size and content differed between the ridges and troughs which characterize the area. Statistical comparisons were made between the sediments of the study area and an eastern area off Dog Island.

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ACC 4161; TYPE P; YEAR 1985
MULTER, R.;
A NUMERICAL MUD DISCHARGE PLUME MODEL FOR OFFSHORE DRILLING OPERATIONS.

BIBL FINAL REPORT BY U.S. ARMY CORPS OF ENGINEERS SUBMITTED TO THE MINERALS MANAGEMENT SERVICE, NEW ORLEANS, LA. CONTRACT #14-12-0001-30012. 12 PP.

KEYWORD: drilling mud, model, numerical model, oil and gas, physical

ABSTRACT: This study involved the modification and subsequent application of a generic plume model developed by the Walden Division of Labor, Inc. under contract to the US Army Corps of Engineers. The mathematical basis of the model is a unidirectional, steady, Reynolds type diffusion equation. To close the governing equation, coefficients of eddy diffusion are introduced and a hypothesis of similar mass and momentum diffusion invoked to define them. Also made is an assumption that the velocity may be replaced by its mean over the depth. This substitution facilitates separation of the original equation into two partial differential equations. One equation models the effect of lateral diffusion and is solved analytically. The other models the interaction of settling, longitudinal transport, and vertical diffusion and is solved numerically. The effect of this separation of variables is a substantial reduction in the computational labor. As part of the study a new computer program was written to perform the numerical computations. A second program which sets up the data needed by the numerical computation program was also written. This program asks the modeler a series of questions and stores the responses in a data file which is subsequently used by the numerical plume model. The combination of the two programs form an interactive, easy to use, tool for studying mud plumes.

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ACC 429; TYPE ; YEAR 1983
MUNCY, R.J.; WINGO, W.M.;
SPECIES PROFILES, LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (GULF OF MEXICO). SEA CATFISH AND GAFFTOPSAIL CATFISH.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS-OBS-82-115. 17 PP.

KEYWORD: biology, commercial fishery, ecology, fishery, life history, socioeconomic

ABSTRACT: Not available.

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ACC 1087; TYPE ; YEAR 1981
MURPHY, M.D.;
ASPECTS OF THE LIFE HISTORY OF THE GULF BUTTERFISH, PEPRILIS BURTI.

BIBL M.S. THESIS. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX.77 P.

KEYWORD: biology, ecology, fish, life cycle, life history, zoology

ABSTRACT: Not available.

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ACC 4110; TYPE P; YEAR 1975
MURPHY, E.B.; STEIDINGER, K.A.; ROBERTS, B.S; WILLIAMS, J.; JOLLEY, J.W.;
AN EXPLANATION FOR THE FLORIDA EAST COAST GYMNODIUM BREVE RED TIDE OF NOVEMBER 1972.

BIBL LIMNOL. OCEANOGR. 20(3):481-486.

KEYWORD: biology, phytoplankton, loop current, remote sensing, red tide

ABSTRACT: The first documented Florida east coast Gymnodinium breve red tide is attributed to an unusual Loop Current pattern. Satellite and ground data indicate that the November incident was seeded by a red tide detected in late September 1972 in southwest Florida waters; southwest inshore waters flowed directly south through the Florida Keys, carrying low to moderate concentrations of G. breve which were concentrated and transported to the east coast by unusual current configurations.

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ACC 81; TYPE ; YEAR 1975
MURRAY, S.P.;
WIND AND CURRENT EFFECTS ON LARGE SCALE OIL SLICKS.

BIBL IN 7TH ANNUAL OFFSHORE TECHNOLOGY CONFERENCE, MAY 5-8, 1975. HOUSTON, TX. P. 523-533.

KEYWORD: currents, hydrography, meteorology, oil spill, physical process

ABSTRACT: The relative effect of local winds and near-surface currents in determining the movement of oil slicks in coastal and shelf waters was determined from 39 surveys by Raydist-equipped helicopters during the Main Pass 41C spill off the Mississippi Delta in March 1970. Orientation of oil slicks is closely controlled by local wind direction; slicks usually form 10o.40o to the right of the wind. Wind shifts associated with various sectors of migrating high-pressure cells quickly realign new slicks and actively dissipate old ones. Density fronts, both

ambient and quasi-stationary, also play important roles in determining slick movement and size. An easily utilized regression model for slick area and orientation as a function of wind velocity and local conditions is also presented.

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ACC 90; TYPE ; YEAR 1976
MURRAY, S.P.; WISEMAN, W.J.;
CURRENT DYNAMICS AND SEDIMENT DISTRIBUTION IN THE WEST MISSISSIPPI DELTA AREA.

BIBL IN CONFERENCE ON MARINE AND FRESHWATER RESEARCH IN SOUTHERN AFRICA, PORT ELIZABETH, SOUTH AFRICA. JULY 1976. 7 P.

KEYWORD: continental shelf, currents, oceanography, physical process

ABSTRACT: The dynamical oceanography of the coastal bight west of Southwest Pass, an area extending roughly 50 km offshore and 70 km alongshore, was studied over the hydrologic year 1973-1974. Analysis of current observations from moored current meters and monthly anchor stations isolated clock-rotating tidal currents having amplitudes of 10-30 cm/sec, depending on location and vertical density gradients. Extremely strong tidal currents in the vicinity of Southwest Pass appear to be related to the early arrival of high water locally. Current profiles at the anchor stations often show significant vertical shear in speed and direction which is probably controlled by the density stratification. The spatial pattern of the tidal currents consists predominantly of reversing along shore flow with significant shear in the onshore-offshore direction. Drogue tracks, combined with satellite imagery and surface salinity patterns, frequently show a trapped vortex west of the delta with onshore flows in the western extremity of the study area. Conversely, monthly hydrographic cruises on a dense grid suggest that heavy Gulf water persistently intrudes at depth into the central core of the curved bight. Although subject to strong dispersive processes by the marked spatial variability in the tidal current field, the sediment pattern nevertheless appears to be largely controlled by the mean current field produced by seasonal wind and river discharge effects.

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ACC 564; TYPE ; YEAR 1960
MURRAY, G.E.;
GEOLOGIC FRAMEWORK OF GULF COASTAL PROVINCE OF UNITED STATES.

IN F.P. SHEPARD, F.B. PHLEGER, AND T.H. VAN ANDEL, EDS. RECENT SEDIMENTS, NORTHWEST GULF OF MEXICO. AM. ASSOC. PET. GEOL., TULSA, OK. P. 5-33.

BIBL AM. ASSOC. PET. GEOL., TULSA, OK.

KEYWORD: paleozoic, precambrian, coastal water, geology, geosyncline, stratigraphy, structure, geologic history

ABSTRACT: The Gulf Coastal province of the United States is a segment of the Mesozoic-Cenozoic coastal geosyncline of eastern North America which can be traced continuously from Newfoundland to Guatemala. The geosyncline is roughly lens-shaped in cross section; approximately equal parts exist (1) submerged beneath the waters of the Atlantic Ocean and Gulf of Mexico, and (2) partly emerged adjacent to the shores. The Gulf Coastal portion of the geosyncline has an area of more than 150,000 square miles and contains about 50,000 feet of predominately arenaceous-argillaceous, marginal to shallow marine strata, although calcareous materials predominate in the Florida Peninsula and in the Cretaceous in Texas. The geosynclinal mass overlies Precambrian-Paleozoic rocks of variable facies, structure, and degree of metamorphism; their top surface possesses an overall slope toward the Gulf of Mexico.

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ACC 2361; TYPE ; YEAR 1976
MURRAY, P.J.;
THE TRANSPLANTATION OF THE SEAGRASS THALASSIA TESTUDINUM AND HALODULE WRIGHTII INTO A MARCO ISLAND CANAL SYSTEM.

BIBL RES. PROG. REPT. MACRO APP. MAR. ECOL. STA. 9 P.

KEYWORD: Collier, seagrass, temperature, salinity, DO, turbidity, light, nutrient

ABSTRACT: The success of transplanting Thalassia testudinum and Halodule wrightii in the berm and trough of a modified canal system was monitored. Sprigs were transplanted with only a rhizome fragment attached and not an active apex to determine whether or not the rhizome planted without the apex will grow. Long term results had not yet been evaluated.

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ACC 818; TYPE ; YEAR 1967
N/A
ANTIMICROBIAL ACTIVITY OF BACTERIA ISOLATED FROM MARINE MUD.

BIBL GULF COAST TECHNICAL SERVICES UNIT TECHNICAL REPORT 67.5. 10 P.

KEYWORD: microfauna, sediment, bacteria

ABSTRACT: Bacteria capable of exhibiting antimicrobial activity were isolated from marine mud so as to gain knowledge regarding the estuarine environment as a potential source of antimicrobial agents. Samples of mud were taken from 5 stations in Mobile Bay during a 1 year period beginning in August, 1965.

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ACC 819; TYPE ; YEAR 1971
N/A
COLIFORM BACTERIAL GROWTH IN HARVESTED OYSTERS.

BIBL GULF COAST TECHNICAL SERVICES UNIT TECHNICAL REPORT 71-1.

KEYWORD: temperature, microfauna, oyster, bacteria

ABSTRACT: An attempt was made to determine the cause of an increase in coliform bacteria counts between harvesting and arrival of oysters at wholesale and retail markets. Samples were collected in November, 1970.

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ACC 397; TYPE ; YEAR 1983
NATIONAL CLIMATIC DATA CENTER,.
CLIMATIC SUMMARIES FOR NOAA DATA BOUYS.

BIBL NATIONAL WEATHER SERVICE, NOAA DATA BUOY CENTER, NSTL STATION, MS. 214 P.

KEYWORD: air temperature, meteorology, physical process, wave height, wave period, water temperature, wind direction, wind speed

ABSTRACT: Not available.

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ACC 398; TYPE ; YEAR 1972
NATIONAL CLIMATIC DATA CENTER;
ENVIRONMENTAL GUIDE FOR THE U.S. GULF COAST.

BIBL NATIONAL CLIMATIC DATA CENTER, ASHEVILLE, NC. 177 P.

KEYWORD: meteorology, oceanography, physical process, temperature, wave

ABSTRACT: Not available.

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ACC 688; TYPE ; YEAR 1984
NATIONAL CLIMATIC DATA CENTER;
LOCAL CLIMATOLOGICAL DATA, ANNUAL SUMMARY WITH COMPARATIVE DATA - 1983. MOBILE, AL.

BIBL NATIONAL CLIMATIC DATA CENTER, ASHEVILLE, NC. 4 P.

KEYWORD: climatic data, meteorology, air temperature, precipitation

ABSTRACT: This is an annual NOAA publication which includes a local narrative climatological summary, the meteorological data for the current year and normals, means and extremes. In addition to this data, monthly average temperatures, and precipitation are presented.

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ACC 783; TYPE ; YEAR 1980
NATIONAL FISH AND WILDLIFE LABORATORY;
AMERICAN ALLIGATOR.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS IOBS-80101.39. 9 P.

KEYWORD: alligator, biology, breeding, ecology, feeding habit, life history, reproduction

ABSTRACT: This paper is one in a series of accounts on threatened and endangered species. The purpose is to provide resource managers and the public with information about federally listed endangered and/or threatened vertebrate species that occur along or within 100 km of the sea coast of the United States. Information on life history, distribution, requirements and conservation of the subject species is included.

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ACC 58; TYPE ; YEAR 1980
NATIONAL FISH AND WILDLIFE LABORATORY;
SELECTED VERTEBRATE ENDANGERED SPECIES OF THE SEA COAST OF THE UNITED STATES.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-80101.

KEYWORD: biology, coastal zone, endangered species, life history, distribution, vertebrate

ABSTRACT: The purpose of this series of species accounts is to provide resource managers and the public with information about federally listed endangered and/or threatened vertebrate species that occur along, or within 100 kilometers of, the seacoast of the United States. Information about life history, distribution, requirements and conservation of the subject species is included (range maps and other distributional data are not necessarily equivalent to critical habitat as defined in the Endangered Species Act of 1973, as amended). This series of accounts is intended to complement the

computerized Sensitive Wildlife Information System (SWIS) developed by the U.S. Army Corps of Engineers in coordination with the Offices of Endangered Species and Biological Services of the Fish and Wildlife Service.

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ACC 877; TYPE ; YEAR 1973
NAT. MAR. FISH. SERV.; SOUTHEAST FISH. CENTER; FISH ENGINEER. LABORATORY;
SKYLAB OCEANIC GAMEFISH PROJECT, INTERIM DATA REPORT.

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST FISHERIES CENTER, FISHERIES ENGINEERING LABORATORY.

KEYWORD: air pressure, air temperature, carotenoids, chlorophyll, irradiance, precipitation, relative humidity, salinity, remote sensing, fishery

ABSTRACT: A joint effort by private, professional fishermen, NASA and NOAA's NMFS took place on August 4 and 5, 1973, in the northern Gulf of Mexico to acquire gamefish data, pigment data, chlorophyll A, B, and C along with carotenoids were measured using color filters.

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ACC 407; TYPE ; YEAR 1982
NATIONAL MARINE FISHERIES SERVICE;
FISHERIES OF THE UNITED STATES, 1981.

BIBL NATIONAL MARINE FISHERIES SERVICE, WASHINGTON, D.C. CURRENT FISHERY STATISTICS NO. 8200. 131 P.

KEYWORD: biology, coastal water, management, fishery, fishery statistics, continental shelf, socioeconomic

ABSTRACT: Not available.

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ACC 677; TYPE ; YEAR 1983
NATIONAL MARINE FISHERIES SERVICE;
PROGRAM DEVELOPMENT PLAN FOR MARINE RECREATIONAL FISHERIES IN THE SOUTHEAST REGION.

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST REGIONAL OFFICE AND SOUTHEAST FISHERIES CENTER, ST. PETERSBURG, FL. 35 P.

KEYWORD: coastal water, recreation, socioeconomic, sport fishing

ABSTRACT: Not available.

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ACC 678; TYPE ; YEAR 1980
NATIONAL MARINE FISHERIES SERVICE;
MARINE RECREATIONAL FISHERY STATISTICS SURVEY, ATLANTIC AND GULF COASTS. 1979. CURRENT FISHERY STATISTICS NUMBER 8063.

BIBL NATIONAL MARINE FISHERIES SERVICE, WASHINGTON, D.C. 137 P.

KEYWORD: coastal water, recreation, socioeconomic, sport fishing, statistical analysis, fish

ABSTRACT: The 1979 survey is the first in a series of planned surveys to obtain estimates of participation, catch and effort by recreational fishermen in marine waters of the United States. This report covers the Atlantic and Gulf Coasts for a one year period from January through December, 1979. The data collection methodology consisted of two complementary surveys, a combination household survey and intercept (creel) survey.

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ACC 879; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER;
SURVEY OF GULF MENHADEN.

BIBL NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER, BEAUFORT, NC.

KEYWORD: fish, salinity, commercial fishery, secchi disc, water temperature

ABSTRACT: Ten year survey of Gulf menhaden from Florida to Texas.

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ACC 880; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER;
CATCH RECORDS OF GULF MENHADEN.

BIBL NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER, BEAUFORT, NC.

KEYWORD: fish, commercial fishery

ABSTRACT: Not available.

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ACC 881; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER;
AGE AND SIZE OF GULF MENHADEN.

BIBL NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER, BEAUFORT, NC.

KEYWORD: fish, length, commercial fishery

ABSTRACT: Age and size study of Atlantic menhaden throughout the geographical and seasonal range of the Gulf menhaden fishery. Samples from commercial catch.

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ACC 882; TYPE ; YEAR UNKN
NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER;
TAGGING AND MIGRATION STUDIES OF ADULT GULF MENHADEN.

BIBL NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER, BEAUFORT, NC.

KEYWORD: fish, length, commercial fishery, migration, tagging

ABSTRACT: Tagging and migration studies of adult Gulf menhaden from Florida to Texas. Field notes on fish conditions.

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ACC 883; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER;
TAGGING JUVENILE GULF MENHADEN.

BIBL NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER, BEAUFORT, NC.

KEYWORD: fish, length, commercial fishery, migration, tagging

ABSTRACT: Tagging study of juvenile Gulf menhaden. Field notes on habitat, condition, water quality.

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ACC 884; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER;
AGE AND SIZE OF ATLANTIC THREAD HERRING.

BIBL NATIONAL MARINE FISHERIES SERVICE, ATLANTIC ESTUARINE FISHERIES CENTER, BEAUFORT, NC.

KEYWORD: fish, length, commercial fishery

ABSTRACT: Age and size studies of Atlantic thread herring in Gulf of Mexico.

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ACC 897; TYPE ; YEAR 1975
NATIONAL MARINE FISHERIES SERVICE;
FRV GEORGE M. BOWERS CRUISE REPORT.

BIBL SOUTHEAST FISHERIES CENTER.

KEYWORD: demersal fish, pelagic fish, commercial fishery, tagging

ABSTRACT: The FRV George M. Bowers was assigned to determine, through tagging, the feasibility of assessing the bull croaker populations associated with offshore platforms in the northern Gulf of Mexico. Initially fishing operations were scheduled around four platforms east of the Mississippi River, however, inclement weather forced operations to the East Bay and West Delta area.

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ACC 980; TYPE ; YEAR 1984
NATIONAL MARINE FISHERIES SERVICE;
END-OF-YEAR REPORTS: ANNUAL LANDINGS BY DISTANCE CAUGHT FROM SHORE - SOUTHEAST REGION FOR 1983 (PRELIMINARY).

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST FISHERIES CENTER, STATISTICAL SURVEYS BRANCH, MIAMI, FL. UNPAGINATED.

KEYWORD: continental shelf, fish catch, commercial fishery, fishery, fishery statistics, socioeconomic

ABSTRACT: This is a compilation of annual commercial fisheries catch organized by fish species, ex vessel value, weight, and state, with the distance from shore.

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ACC 1018; TYPE ; YEAR 1984
NATIONAL MARINE FISHERIES SERVICE;
GULF COAST CHARTER BOAT LISTING.

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST FISHERIES CENTER, ST. PETERSBURG, FL. UNPAGINATED.

KEYWORD: boat, fishery, recreation, socioeconomic, sport fishery

ABSTRACT: This is a continuously revised listing of charter boats along the Gulf coast. Information listed includes the captain's name, the boat's name, the boat's location, and a contact mailing address.

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ACC 4207; TYPE P; YEAR 1979
NATIONAL MARINE FISHERIES SERVICE;
ENVIRONMENTAL ASSESSMENT OF AN ACTIVE OIL FIELD IN THE NORTHWESTERN GULF OF MEXICO 1977-1978. VOLUME I--SYNOPSIS.

BIBL ANNU. REPT. TO EPA. JUNE 1979. 78 P.

KEYWORD: biological, chemical, physical, pollutant, community, oil spill, pollution

ABSTRACT: Volume I--Synopsis is the first of three volumes in an annual report. It is designed to be used as a briefing document and as a key to more detailed scientific and technical information contained in the other volumes. The area selected for study is the operational Buccaneer Oil Field located approximately 49.6 km from Galveston Sea Buoy off Galveston, Texas. Objectives of the project are: (1) to identify and document the types and extent of biological, chemical and physical alterations of the marine ecosystem associated with Buccaneer Oil Field, (2) to determine specific pollutants, their quantity and effects, and (3) to develop the capability to describe and predict fate and effects of Buccaneer Oil Field contaminants. The Buccaneer Field has been in production for about 15 years thus allowing for the full development of oil-field-associated marine communities. There have been no major oil spills from this field although there have undoubtedly been losses of small amounts of oil. This project provides a unique opportunity for continued study of effects of chronic, low-level contamination of the marine ecosystem associated with oil and gas production in an established field.

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ACC 4209; TYPE P; YEAR 1979
NATIONAL MARINE FISHERIES SERVICE;
ENVIRONMENTAL ASSESSMENT OF AN ACTIVE OIL FIELD IN THE NORTHWESTERN GULF OF MEXICO 1977-1978. VOLUME III: CHEMICAL AND PHYSICAL INVESTIGATIONS.

BIBL ANNU. REPT. EPA. 710 P.

KEYWORD: chemical, physical, biological, sediment, heavy metal, circulation, pollutant, hydrocarbon

ABSTRACT: Volume III of a three volume annual report contains detailed scientific and technical information on the results of chemical and physical investigations of the operating Buccaneer Oil Field off Galveston, Texas. The tasks of the various work units are as follows: To identify and document the extent and types of biological, chemical, and physical alterations in the marine ecosystem that are associated with the development of and production of discharges from an oil field; to describe the fine sediments and nepheloid layer of the oil field, focusing upon their relationship to heavy metal adsorption; to determine levels, pathways, and bioaccumulation of heavy metals; to describe seasonal circulation patterns in the oil field; to determine the specific pollutants, their quantity and effects on the various components of the marine ecosystem; to determine levels, pathways, and bioaccumulation of selected discharge constituents (non-metals) in the marine ecosystem in the oil field; and to construct a hydrocarbon model.

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ACC 694; TYPE ; YEAR 1984
NATIONAL MARINE FISHERIES SERVICE;
OCEANIC PELAGICS PROGRAM SUMMARY - 1983.

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST FISHERIES CENTER, MIAMI, FL. 67 P.

KEYWORD: recreation, socioeconomic, sport fishing, billfish, tagging, growth

ABSTRACT: This report presents the results of the 1983 recreational billfish survey, gamefish tagging activity, and research on fish age and growth rates. In conducting the billfish survey 111 tornaments and 20 docks were monitored, and 102,919 hours of effort were recorded.

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ACC 859; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA LABORATORY;
SHRIMP DISCARD FILE.

BIBL NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA, MS.

KEYWORD: benthic fauna, commercial fishery, demersal fish, pelagic fish, shrimp

ABSTRACT: Data is collected from a number of shrimp trawlers regarding what is discarded from their nets. Some methods vary from shrimps to shrimps as does the completeness and accuracy of discard data. To date, data has been collected from about 700 stations. Descriptive data is also available on gear size and type.

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ACC 860; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA LABORATORY;
CATCH EFFORT (LOG BOOK) DATA.

BIBL NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA, MS.

KEYWORD: demersal fish, commercial fishery

ABSTRACT: Daily catch data from captain's log book have been collected since 1970 in an effort to monitor the industrial bottom fish fishery off the north central Gulf of Mexico coast. Data is also available on vessel characteristic and gear type. Although no specific data is recorded on species composition of the catches, it can be estimated according to the time of year.

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ACC 861; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA LABORATORY;
BIOLOGICAL SAMPLES FROM THE INDUSTRIAL BOTTOM FISH SURVEYS.

BIBL NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA, MS.

KEYWORD: demersal fish, length, commercial fishery, weight, reproduction

ABSTRACT: Samples of catches from the industrial bottom fish fishery in the north central Gulf of Mexico are collected monthly. Data are taken on length, weight, sex, and reproductive stage of the 5 to 7 dominant species.

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ACC 864; TYPE ; YEAR N/AI
NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA LABORATORY;
GROUNDFISH LENGTH FREQUENCY DATA.

BIBL NATIONAL MARINE FISHERIES SERVICE, PASCAGOULA, MS.

KEYWORD: demersal fish, pelagic fish, commercial fishery, length, weight, reproduction, hydrography, water quality

ABSTRACT: Data on length, weight, sex and gonadal condition has been collected on the dominant species of the groundfish fishery in the northern Gulf of Mexico. Measurement are usually taken on most of the following species: Micropogon undulatus, Leiostomus xanthurus, Cynoscion arenarius, Cynoscion nothus, Menticirrhus americanus, Stellifer lanceolatus, Stenotomus caprinus, Peprilus burti, Trichiurus lepturus, and Arius felis. The station data collected in conjunction with these fishery data are on punched cards in the total fisheries data file in Pascagoula and are retrievable by station number or species. Station data usually, but not always include air and water temperature (some surface and bottom), depth, barometric pressure, wind direction and speed, sea state, water color, bottom type, ID of other animals caught and catch/effort of station.

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ACC 875; TYPE ; YEAR N/AI
NATIONAL OCEAN SURVEY;
YEARLY SUMMARIES OF CONTROL TIDAL STATIONS.

BIBL NATIONAL OCEAN SURVEY, ROCKVILLE, ML.

KEYWORD: tide, water level

ABSTRACT: Summaries of data taken at control tide stations are included in this file. Parameters described are monthly means and extremes, highest tides, lowest tides, high water interval (greenwich), low water interval (greenwich), high water, low water, range, tide level, sea level, difference between tide level and sea level, and highest daily sea level. The data is presented in tabular form with each page containing one parameter measured over a number of years.

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ACC 145; TYPE ; YEAR 1983
NATIONAL PARK SERVICE;
NORTHERN GULF OF MEXICO ESTUARIES AND BARRIER ISLANDS RESEARCH CONFERENCE, PROGRAM AND ABSTRACTS, JUNE 13-14, 1983, BILOXI, MS

BIBL GULF COAST RESEARCH LABORATORY, J.L SCOTT MARINE EDUCATION CENTER, BILOXI, MS. NATIONAL PARK SERVICE, COASTAL FIELD RESEARCH LABORATORY, OCEAN SPRINGS, MS.

KEYWORD: barrier island, biology, ecosystem, fishery, oceanography, mollusc, fish, model, geology

ABSTRACT: Abstracts are presented from some 44 papers presented at this conference. Subjects include benthic communities, fishes, pelecypods, ground fish surveys, hydrodynamic modeling, geology and oil exploration impacts.

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ACC 2345; TYPE P; YEAR 1980
NEALE, M.J.;
A SEDIMENTOLOGICAL STUDY OF THE GULF COASTS OF CAYO-COSTA AND NORTH CAPTIVA ISLANDS, FLORIDA.

BIBL M.S. THESIS. FLA. STATE UNIV., TALLAHASSEE, FL.

KEYWORD: Lee, sediment, transport, bathymetry, distribution, grain size

ABSTRACT: Analysis of sediment grain size parameters from 103 sediment samples collected along the Gulf beaches of Cayo-Costa and North Captiva Islands, Florida, indicated local erosion of beach

material. Sediment transport to offshore areas was indicated with no continuous longshore transport. The bathymetry and sediment distribution of the study area are described.

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ACC 4171; TYPE P; YEAR 1981
NEFF, J.M.; CARR, R.S.; MCCULLOCH, W.L.;
ACUTE TOXICITY OF A USED CHROME LIGNO SULFONATE DRILLING MUD TO SEVERAL SPECIES OF MARINE INVERTEBRATES.

BIBL MAR. ENVIRON. RES. 4(4):251-266.

KEYWORD: drilling mud, annelid, crustacean, mollusk, pink shrimp, pathology, physiology

ABSTRACT: The acute toxicity of used seawater chrome lignosulfonate drilling mud to several species of marine annelids, crustaceans and mollusks was evaluated. Medium density mud (13.4 lb/gal, 1.57 kg/l) was composed primarily of seawater, bentonite clay, chrome lignosulfonate, lignite, NaOH and Ba04S. The toxicity of 4 mud/seawater preparations was determined. These were: layered solids phase (LSP), suspended solids phase (SSP), unfiltered mud aqueous fraction (MAF) and filtered mud aqueous fraction (FMAF). Four species of marine annelids and bivalve mollusks and 5 spp. of marine crustaceans were evaluated. LC50 (96 h) of MAF varied from 32 to > 100% MAF for the different species. The FMAF was slightly less toxic than MAF. Adult polychaetes, Neanthes arenaceodentata and Ctenodrilus serratus, 1 day old juveniles of opossum shrimp, Mysidopsis almyra and 4-day zones of grass shrimp, Palaemonetes pugio, were the most sensitive to MAF. Juvenile N. arenaceodentata, adult polychaetes, Ophryotrocha labronica and 3 bivalve mollusks were highly tolerant to MAF. SSP preparation at concentrations of 10.20 ml/l was toxic to post-larvae and juveniles of commercial shrimp, Penaeus duorarum and Paztecus, respectively. Exposure to LSP preparation caused >50% mortality among adult N. arenaceodentata, juvenile and adult coquina clams, Donax variabilis texasiana and adult scallops, Aequipecten amplicostatus. Other species tested were tolerant. A sublethal response observed was the inhibition of reproduction in marine annelids, Dinophilis sp. and C. serratus. Toxicity of mud aqueous fractions was due primarily to volatile soluble organic...

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ACC 2029; TYPE P; YEAR 1980
NELSON, W.G.;
A COMPARATIVE STUDY OF AMPHIPODS IN SEAGRASSES FROM FLORIDA TO NOVA SCOTIA.

BIBL BULL. MAR. SCI. 30(1):80-89.

KEYWORD: seagrass, crustacea, salinity, temperature

ABSTRACT: No significant differences in mean density, number of species, diversity, and evenness of seagrass-associated amphipods were found between samples from 3 faunal provinces (12 sites) from Florida to Nova Scotia. Values of density, number of species, and evenness were lower in Thalassia testudinum sites than samples from Halodule wrightii or Zostera marina. Amphipod density decreased with increasing latitude in Zostera beds. Significant differences in the size and relative abundance of epifaunal species between most northern sites and most southern sites are believed to be due to differences in predation intensities.

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ACC 2201; TYPE P; YEAR 1981
NELSON, W.G.;
THE ROLE OF PREDATION BY DECAPOD CRUSTACEANS IN SEAGRASS ECOSYSTEMS.

BIBL KIEL MEERESFORSCH. 5:529-536.

KEYWORD: crustacean, seagrass, fish, polychaete, model, pink shrimp, blue crab

ABSTRACT: Seagrass associated macrobenthic invertebrates were exposed to various densities of natura fish (Lagodon rhonboides) and decapod (Penaeus duorarum, Palaenonetes intermedius, Callinectes sapidus) predators in laboratory and field predation experiments in the Indian River. Densities of amphipods, gastropods, bivalves, polychaetes, sipunculids, and tanaids had a negative exponential relationship with the total density of decapod crustaceans present; isopods and nemerteans showed no such relationships. A warning is given that oversimplification of intermediate trophic levels in trophic models may allow important regulatory pathways for seagrass community structure to be ignored.

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ACC 2566; TYPE P; YEAR 1981
NELSON, W.G.;
EXPERIMENTAL STUDIES OF DECAPOD AND FISH PREDATION ON SEAGRASS MACROBENTHOS

BIBL MAR. ECOL. PROG. SER. 5(2):141-150.

KEYWORD: seagrass, fish, crustacean, pink shrimp, blue crab

ABSTRACT: Predation experiments on seagrass macrobenthos conducted under laboratory and field conditions in the Indian River Lagoon, Florida, produced similar results. Macrofaunal abundances were not greatly affected by the fish Lagodon rhomboides or the crab Callinectes sapidus, however, the shrimp Palaemonetes intermedius and Penaeus duorarum caused significant decreases in macrobenthic densities. The effect of decapod crustaceans in regulating densities of seagrass macrobenthos is discussed.

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ACC 4112; TYPE P; YEAR 1979
NEURAUTER, T.W.;
BED FORMS OF THE WEST FLORIDA SHELF AS DETECTED WITH SIDE SCAN SONAR.

BIBL M.S. THESIS, UNIV. OF SOUTH FLA., TAMPA, FL. 144 P.

KEYWORD: continental shelf, geophysical, geology, benthic, bed form, side scan sonar

ABSTRACT: A side-scan sonar investigation on the west Florida shelf reveals a multitude of bed form types. A nongenetic classification based on wavelength and ripple index (wavelength/wave height) divided the types into four groups: giants, large, small-scale ripples and low-relief swells. The last term is here defined as sediment hills of extremely long wavelength (usually >300 m) with comparatively low relief; they are often strongly asymmetric. Five major zones are delineated according to the distribution of bed form types. These zones roughly parallel the coast line and extend seaward to approximately 200 meter depths. Zone A, which parallels the west Florida peninsula out to approximately 20 m, is characterized by giant to large-scale bed forms. These features are oriented almost normal to the coast line and are believed to be longitudinal bed forms generated by major storms. Zone B encompasses the shallow region of the Big Bend area and extends down the mid-shelf parallel to the coast. Low-relief swells and scattered patches of giant to large-scale bed forms characterize this zone. The latter type appears to be "current lineations," a type of longitudinal bed form probably owing its origin to strong wind and/or wave generated currents created during a hurricane. Zone C is subdivided into two zones extending north and south of the Middle Ground. Zone C1 includes the Middle Ground and the area to the north while C2 extends south into water depths of 60 m. Both zones are characterized by small-scale features formed either by internal waves or currents set up on the summer thermocline or by intrusion of Loop Current wate...

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ACC 467; TYPE ; YEAR 1981
NEW ENGLAND COASTAL ENGINEERS;
PROCEEDINGS OF THE GULF CIRCULATION STUDIES WORKSHOP, MAY 14-15, NEW ORLEANS, LA.

BIBL BUREAU OF LAND MANAGEMENT, GULF OF MEXICO OCS REGIONAL OFFICE, NEW ORLEANS, LA. 96 P. (ALSO NTISP-881-248254).

KEYWORD: circulation, currents, loop current, oceanography, physical process, pollutant

ABSTRACT: Not available.

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ACC 4113; TYPE P; YEAR 1982
NEW ENGLAND COASTAL ENGINEERS, INC.;
SOUTHWEST FLORIDA SHELF CIRCULATION MODEL.

BIBL A FINAL REPT. TO THE U.S. DEPT. OF INTER., MINERALS MGMMT. SERV., GULF OF MEX. OUTER CONT. SHELF OFFICE, NEW ORLEANS, LA. CONTRACT #AA851-CTO-71.

KEYWORD: physical, oceanography, numerical model, wind stress, loop current, circulation, eddy formation, seasonality

ABSTRACT: This report summarizes 18 months study funded by the Minerals Management Service. Motivation for the study arose from the Services intention to grant leases for oil exploration, and the attendant need to estimate the probable destination of water-borne pollutants originating from drilling and for predicting seasonal water circulation on the southwest continental shelf. Because of modelling considerations, the study area was expanded to include the contiguous West Florida Shelf (WFS) extending from the Florida Keys in the south to Apalachicola in the north, and the 200 m isobath to the west. The study involved four phases: literature review and data search; model modifications and sensitivity studies; model verification and tuning; and prediction of seasonal circulation patterns.

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ACC 332; TYPE ; YEAR 1982
NICHELSON, R.;
PROCEEDINGS OF THE ANNUAL TROPICAL AND SUBTROPICAL FISHERIES TECHNOLOGICAL CONFERENCE OF THE AMERICAS (7TH).

BIBL TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. TAMU-SG-82-110. 399 P.

KEYWORD: biology, fishery, continental shelf, productivity, shark

ABSTRACT: Not available.

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ACC 2209; TYPE P; YEAR 1981
NICKELS, J.S.; BOBBIE, R.J.; MARTZ, R.F.; SMITH, G.A.; WHITE, D.C.; ET AL.;
EFFECT OF SILICATE GRAIN SHAPE, STRUCTURE, AND LOCATION ON THE BIOMASS AND COMMUNITY STRUCTURE OF COLONIZING MARINE MICROBIOTA.

BIBL APPL. ENVIRON. MICROBIOL. 41(5):1262-1268.

KEYWORD: biomass, community, sediment, grain size, algae, microfauna, benthic

ABSTRACT: Silica grains of the same size and water pore space, but with different microtopography, support microbiota with differences in biomass and community structure after 8 weeks in running seawater. Smooth silica grains had significantly less total microbial biomass than grains with cracks and crevices. Smoothness of sand grain surface was inversely related to abundance of procaryotes and algal microeucaryotes and directly related to microeucaryotic grazer abundance. A comparison of microbial biomass and community structure is made between experimental treatments and

the actual benthic population of a sediment core from the sea floor (32 m) off Panama City, Florida.

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ACC 2456; TYPE P; YEAR 1976
NICKELSEN, G.L.;
COMPOSITION AND DISTRIBUTION OF EPIFAUNA ON PROP ROOTS OF RHIZOPHORA MANGLE L. IN LAKE SURPRISE, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA ATLANTIC UNIVERSITY. BOCA RATON, FL.

KEYWORD: Monroe, epifauna, sponge, algae, polychaete, temperature, salinity, DO, turbidity, light, crustacean

ABSTRACT: A total of 108 species were collected from the prop roots of the red mangrove. Fringe roots hosted greater numbers of species and individuals and a greater abundance of sponges and epiphytes than roots in the interior of the strand. The root community was characterized by three assemblages. The algae-amphipod-tanaidacean assemblage was prominent on fringe roots. The sponge-polychaete assemblage (excluding serpulids) was represented well in both areas, but was more prominent at the fringe. The bare root serpulid assemblage dominated much of the interior. Overall mean diversity (Hs) and equitability (E) were 2.60 and 0.65, respectively. Faunal density was 13,200 ind/sq. meter of root surface.

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ACC 4114; TYPE P; YEAR 1976
NILER, P.P.;
OBSERVATIONS OF LOW-FREQUENCY CURRENTS ON THE WEST FLORIDA CONTINENTAL SHELF.

BIBL MEM SOC. ROYALE DES SCIENCES DE LIEGE 6(10):331-358.

KEYWORD: circulation, loop current, currents, wind stress, physical, oceanography, eddy

ABSTRACT: From August, 1973, to April, 1974, VACM's were emplaced on taut wire moorings in an array on the West Florida continental shelf. Time series of horizontal currents and surface winds have been analyzed for the character of sub-tidally varying motions. At the 150 meter depth, the energetic, 12-15 day period signal in the longshore current propagates to the north along the shelf break at 50 cm/sec and in the onshore currents at 100 cm/sec. A model of Loop Current eddies imbedded in along meander is proposed for a kinematic description of the motions. At the 100 meter depth, there is a marked seasonal change in the pattern of variability which, in winter, becomes strongly correlated with the wind stress over a selected frequency band. The bi-monthly average currents show strong vertical shear; a summertime undercurrent to the north is found.

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ACC 478; TYPE ; YEAR 1981
NISSAN, E.; WILLIAMS, D.C.; BRISTER, B.M.; NELSON, R.G.; HARDY, W.E.;
ECONOMIC - ECOLOGIC MODEL FOR MISSISSIPPI-ALABAMA COASTAL COUNTIES.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP. 31 PP.

KEYWORD: coastal zone, management, resource, socioeconomic, model

ABSTRACT: Not available.

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ACC 479; TYPE ; YEAR 1979
NISSAN, E.; WILLIAMS, D.C.;
A DECISION MODEL FOR THE TRADE-OFF BETWEEN THE BENEFITS OF ECONOMIC GROWTH AND ITS ENVIRONMENTAL COST.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-79-031. 16 PP.

KEYWORD: socioeconomic, mathematical model

ABSTRACT: Not available.

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ACC 483; TYPE ; YEAR 1981
NISSAN, E.; WILLIAMS, D.C.; CAVENY, R.;
A LINEAR PROGRAMMING MODEL OF ECONOMIC GROWTH AND THE ENVIRONMENT.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-79-030.

KEYWORD: socioeconomic, model

ABSTRACT: Not available.

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ACC 651; TYPE ; YEAR 1981
NISSAN, E.; WILLIAMS, D.C.;
A DECISION MODEL FOR THE TRADE-OFF BETWEEN THE BENEFITS OF ECONOMIC GROWTH, AND ITS ENVIRONMENTAL COST. PAGES 88-98.

IN: SYMPOSIUM ON MISSISSIPPI SOUND. J.R. KELLY, ED.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-81-007.

KEYWORD: ecology, economics, model, socioeconomic

ABSTRACT: Not available.

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ACC 2520; TYPE P; YEAR 1967
NOE, C.D.;
CONTRIBUTIONS TO THE LIFE HISTORY OF THE STONE CRAB MENIPPE MERCENARIA SAY WITH EMPHASIS ON THE REPRODUCTIVE CYCLE.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL. 55 P.

KEYWORD: Dade, stone crab, spawning, growth, salinity, temperature, depth

ABSTRACT: Specimens of Menippe mercenaria were collected from grassflats near Key Biscayne from May 1965 to June 1966 to study spawning and growth cycles. Fecundity results revealed an annual egg production of 2 to 2 1/2 million eggs per female. Spawning was highest from July through September. Sex ratios varied greatly over the 13 months of study, which is probably due to changes in relative activity, not abundances. Temperature and salinity influence molting and spawning cycles, with peak molting occurring at lowest spawning.

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ACC 4317; TYPE P; YEAR 1978
NORSE, E.A.;
AN EXPERIMENTAL GRADIENT ANALYSIS: HYPOSALINITY AS AN "UPSTRESS" DISTRIBUTIONAL DETERMINANT FOR CARIBBEAN PORTUNID CRABS.

BIBL BIOL. BULL. 155(3):586-598.

KEYWORD: distribution, crab, salinity, coral, reef, stress

ABSTRACT: Ecological distributions are examined in a guild of Caribbean demersal crabs (family Portunidae) on a gradient in terrestrial influence on aquatic climate, along which the major monotonic physicochemical variable is salinity. Distributions were established by sampling in fresh lotic waters and bays with highly restricted exchange with the sea, which, for marine groups, are constantly and unpredictably climatically severe, respectively, through climatically equable waters around coral reefs. The 16 demersal portunid species collected in Jamaica (the main study area), the Florida Keys, Colombia, and Curacao all occur in undiluted seawater, but progressively fewer are found as salinity decreases. Hyposaline biotopes are virtually monopolized by members of the genus Callinectes, while Arenaeus, Portunus, and Cronius spp. were found only in higher salinities. Callinectes spp. display serial replacement along the gradient; crab stages of C. maracaiboensis, C. bocourti, and C. sapidus occur mainly in fresh waters, while dominance peaks occur in progressively higher salinities for C. exasperatus, C. danae, C. marginatus, and C. ornatus. Acute hyposalinity tolerances of the common species were determined experimentally and follow the same order as upstress limits and dominance peaks. The species composition of the guild changes from domination by the most to the least euryhaline species as likelihood of severe dilution decreases.

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ACC 4115; TYPE P; YEAR 1966
NOWLIN, W.D., JR.; MCLELLAN, H.J.;
A CHARACTERIZATION OF THE GULF OF MEXICO WATERS IN WINTER.

BIBL J. MAR. RES. 25(1):29-59.

KEYWORD: circulation, currents, hydrography, intrusion, loop current, physical, oceanography

ABSTRACT: The results of a rapid survey of the Gulf of Mexico in the winter of 1962 are presented. Variations in the characteristics of the water in several core layers are described. Circulation has been examined on the basis of dynamic computations and G.E.K. measurements. In the eastern Gulf, water enters through Yucatan Strait and leaves through Florida Strait, flowing in an anticyclonic loop that extends well into the Gulf. In the western Gulf, circulation is anticyclonic around an elongated cell oriented NE-SW over the Gulf Basin. Sufficient similarities are seen in data obtained in other years to suggest that this pattern is typical of the circulation in the winter. The complexity of the circulation pattern deduced from this survey is

considerably less than that of patterns presented by others.

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ACC 253; TYPE ; YEAR 1980
NUMMEDAL, D.; PENLAND, S.; GERDES, R.; SCHRAMM, W.; KAHN, J.; ROBERTS, H.;
GEOLOGIC RESPONSE TO HURRICANE IMPACT ON LOW PROFILE GULF COAST BARRIERS.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC. 30:183-195.

KEYWORD: barrier island, coastal zone, erosion, geology, hurricane

ABSTRACT: Hurricane Frederic made landfall near Pasagoula, Mississippi at midnight September 13, 1979. At the time of landfall the central pressure had dropped to 946 mb, onshore winds in excess of 200 km/hr were lashing the Alabama coastline and the open coast storm tide peaked at 365 cm at Gulf Shores, Alabama. Vertical aerial photography obtained in 1976 and again 9 days after Frederic made landfall, combined with multiple reconnaissance overflights and ground surveys by the authors provided the data base for determination of shoreline erosion and the distribution of hurricane scour and sedimentary deposits. Erosion of the Gulf beach at Dauphin Island proved to follow a predictable pattern controlled by nearshore bathymetry whereas retreat of the shoreline of the Mississippi Sound margin was an unexpected occurrence, apparently due to a hydraulic jump as washover currents entered the deep water of Mississippi Sound. Large scale sediment redistribution on Dauphin Island proper was a consequence of the storm surge flood. However, the ebb surge was responsible for the reopening of three inlets across Little Dauphin Island. Hurricane Frederic also had a major impact on the Chandeleur Islands, Louisiana. Even though the maximum surge height on the left side of the hurricane track was only 1-3 m, pre-existing hurricane channels and washovers acted as conduits for the flood and ebb surge.

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ACC 544; TYPE ; YEAR 1983
NUMMEDAL, D.;
RATES AND FREQUENCIES OF SEA-LEVEL CHANGES: A REVIEW WITH AN APPLICATION TO PREDICT FUTURE SEA-LEVELS IN LOUISIANA.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC. 33:361-366.

KEYWORD: bibliography, coastal zone, eustatic change, geology, management, sea level, tectonic, geologic history, climatology

ABSTRACT: The relative elevation of sea and land has been changing throughout time in response to two fundamentally different groups of factors operating globally and locally. (1) Global factors include changes in the volume of the ocean basins due to variable sea floor spreading rates, oceanic sedimentation, continental accretion, and the opening and closing of marginal seas. Furthermore, the mass of oceanic water has changed in response to glaciations, and the specific volume of the water is temperature dependent. (2) Local factors influencing relative sea level at any measurement station include subsidence of continental margins, fault displacements, compaction due to dewatering of sediments, and a range of atmospheric factors. This review has identified nine groups of factors which control relative sea level. These factors operate at distinctly different time scales ranging from 10**(8) years (sea floor spreading) to hours (storms). These same groups of factors also have characteristic rates of sea-level change, ranging from 5 x 10**(.4) cm/year for sea floor spreading to 30 cm/year for seasonal effects due to continental run-off and steric expansion of seawater. As one application of the data in this review an attempt has been made to predict the trend of relative sea level along the coast of Louisiana for the coming decades. Currently, the global (eustatic) sea level appears to be rising at a rate of 1.2 mm per year. The local rate of land surface sinking along the central Louisiana coast appears to be about 9 mm per year....ide inundation. The economic impact on south Louisiana due to local sea-level rise is already severe and it is likely to increase in magnitude. It is imperative that plans for coastal development and protection consider these long-term trends.

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ACC 4116; TYPE P; YEAR 1973
O'BRIEN, J.J.; WROBLEWSKI, J.W.;
A SIMULATION OF THE MESOSCALE DISTRIBUTION OF THE LOWER MARINE TROPHIC LEVELS OF WEST FLORIDA.

BIBL INVEST. PESQUERA. 37(2):193-233.

KEYWORD: biology, ecology, food habit, hydrography, nutrient, organic carbon, numerical model, phytoplankton, zooplankton, pelagic fish

ABSTRACT: A simulation model of the flow of the biologically limiting nutrients through the lower trophic levels (phytoplankton, zooplankton, pelagic fish, detritus, and limiting nutrient dissolved in the water column) of a marine ecosystem over a continental shelf is presented. Interrelated processes of this time dependent, spatial, non-linear, physical-chemical-biological model include advection, diffusion, several biotic and abiotic environmental conditions, and numerous biological processes. The necessity of including the effect of advection upon the spatial distribution of the biotic components in an upwelling situation is demonstrated. The maximum rate of nutrient uptake by phytoplankton, Vm, is found to be a fundamental time scale to which both physical and biological processes can be related. A nondimensional parameter S, evolved from the formulation of the model, scales the effects of advection and diffusion relative to the rate of biological turnover in determining the spatial solutions. The magnitude of S is dependent on the value of Vm. The spatial distributions of the biotic components are calculated for both phosphate and nitrate limiting situations. Localities of greater upwelling of nutrient rich waters into the euphotic zone show greater phytoplankton and zooplankton standing stocks. The rates of the system are explored. Sensitivity analyses conducted on the model formulation determine the most important controlling

factors in the system dynamics to be herbivore grazing and excretion rates.

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ACC 747; TYPE ; YEAR 1971
ODUM, E.P.;
FUNDAMENTALS OF ECOLOGY. 3RD EDITION.

BIBL W.B. SAUNDERS CO., PHILADELPHIA, PA. 573 PP.

KEYWORD: biology, coastal water, benthic community, ecology, feeding habit, macrofauna, meiofauna

ABSTRACT: This text presents the fundamental concepts and logic behind ecological theory. It examines the interrelationship between animal communities and their environment. It is used as a textbook in a number of introductory ecology courses.

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ACC 212; TYPE ; YEAR 1982
O'NEIL, P.E.; METTEE, M.F.. EDS.;
ALABAMA COASTAL REGION ECOLOGICAL CHARACTERIZATION. VOLUME 2. A SYNTHESIS OF ENVIRONMENTAL DATA.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES. WASHINGTON, D.C. FWS/OBS-82/42. 346 PP.

KEYWORD: biology, coastal zone, ecology, ecosystem, estuary, geology, hydrology, meteorology, model

ABSTRACT: The Environmental Synthesis report consists of two parts. The first contains a detailed description of the natural environment of coastal Alabama relative to its biological, geological, and hydrological resources and processes. The second part presents a conceptual model of energy flow through major coastal ecosystems (freshwater, coastal terrestrial, estuarine and outer continental shelf) and interrelates them to modified and manipulated systems (urban, industrial, and agricultural) in Mobile and Baldwin Counties. Also included are detailed discussions and models of the estuarine ecosystem and one of its components, the marsh, as it relates to coastal Alabama.

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ACC 2362; TYPE ; YEAR 1977
OLEXA, M.T.; FREEMAN, T.E.;
RED MANGROVE: A PLANT PATHOLOGICAL-ENVIRONMENTAL STUDY.

BIBL IN: PROC. OF THE FOURTH ANNU. CONF. ON THE RESTORATION OF COAST. VEGETATION IN FLA. P. 138.150.

KEYWORD: Collier, coastal, flora, pathology, stress

ABSTRACT: A survey of the red mangrove, Rhizophora mangle, for foliar disease was conducted along Florida's coastal and inshore marine areas between June 1974 and June 1975. Three species of pathogenic fungi (Cercospora rhizophorae, Anthostonella rhizomorphae, Pestalotia disseminata) were isolated from mangrove leaves. Evidence indicated that fungi promoted early leaf fall. Closer investigation of affected mangroves at five sites in the Ten Thousand Islands area revealed a significant correlation between incidence/severity of foliar disease and certain environmental parameters.

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ACC 4267; TYPE P; YEAR 1977
OPENHEIMER, C.H.;
THE OFFSHORE ECOLOGY INVESTIGATION 1972-1974. PRESENTED AT PETROLEUM HYDROCARBONS IN THE MARINE ENVIRONMENT (ICES WORKSHOP) ABERDEEN (UK) 9 SEPTEMBER 1975.

BIBL 171, 147.

KEYWORD: biology, chemistry, geology, physical, oceanography, baseline study, upwellings, drilling

ABSTRACT: The paper described a 2-year investigation of offshore ecology by the Gulf Universities Research Consortium designed to answer the question, what is the measurable impact of drilling for oil, and later producing it, on the estuarine and marine environment of the Louisiana shelf? Twenty-three projects in biology, chemistry, geology and physical oceanography were involved and sampling stations were included both adjacent to drilling and production locations, and in control areas in the same region where oil had never been drilled. Based on the data analyzed so far, the following general conclusions were reached. (1) The universal necessity for conducting a "before-the-fact" baseline study to subsequently determine the environmental impact of this type of man's activity is questioned. (2) Natural phenomena such as seasonality, floods, upwellings, and turbid layers have much greater impact upon the ecosystem than do petroleum drilling and production activities. (3) Concentrations of all compounds of Offshore Ecological Investigation interest which are in any way related to drilling or production are sufficiently low to present no known persistent biological hazards. (4) Every indication of good ecological health is present. The region of the sampling sites is a highly productive one from the biological standpoint, more so than other regions thus far studied in the eastern and open Gulf of Mexico. (5) Timbalier Bay has not undergone significant ecological change as a result of petroleum drilling and production since just prior to 1952 when other more limited baseline data were generated.

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ACC 4183; TYPE P; YEAR 1977
OPPENHEIMER, C.H.;
THE OFFSHORE ECOLOGY INVESTIGATION 1972-1974.

BIBL RAPP. P.-V. REUN. CONS. INT. EXPLOR. MER. 171:147.

KEYWORD: biology, chemistry, geology, physical, oceanography, baseline study, pollution, offshore drilling

ABSTRACT: The paper described a two-year investigation of offshore ecology by the Gulf Universities Research Consortium designed to answer the question, what is the measurable impact of drilling for oil, and later producing it, on the estuarine and marine environment of the Louisiana shelf? Twenty-three projects in biology, chemistry, geology and physical oceanography were involved and sampling stations were included both adjacent to drilling and production locations, and in control areas in the same region where oil had never been drilled. Based on the data analyzed so far, the following general conclusions were reached: (1) The universal necessity for conducting a before-the-fact baseline study to subsequently determine the environmental impact of this type of man's activity is questioned. (2) Natural phenomena such as seasonality, floods, upwellings, and turbid layers have much greater impact upon the ecosystem than do petroleum drilling and production activities. (3) Concentrations of all compounds of Offshore Ecological Investigation interest which are in any way related to drilling or production are sufficiently low to present no known persistent biological hazards. (4) Every indication of good ecological health is present. The region of the sampling sites is a highly productive one from the biological standpoint, more so than other regions thus far studied in the eastern and open Gulf of Mexico. (5) Timbalier Bay has not undergone significant ecological change as a result of petroleum drilling and production since just prior to 1952 when other more limited baseline data were generated.

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ACC 2521; TYPE P; YEAR 1973
OPRESKO, D.C.;
ABUNDANCE AND DISTRIBUTION OF SHALLOW WATER GORGONIANS IN THE AREA OF MIAMI, FLORIDA.

BIBL BULL. MAR. SCI. 22(3):535-558.

KEYWORD: Dade, gorgonian, distribution, habitat, diversity, reef, temperature, salinity, light, currents, sediment

ABSTRACT: The composition of the gorgonian fauna in the Miami area was examined. Collections totaling 2,550 specimens were analyzed as to number of species, number of colonies of each species, relative abundance of various taxonomic groups, and average height and weight of each species. Species were categorized according to patterns of distribution, and the ecological factors limiting the distribution of species were examined. The scleraxions had the most restricted distribution and the gorgonid holaxonians occurred in the widest range of habitats. The plexaurids showed the greatest species diversity and the greatest intraspecific ecological variability. The gorgonids, however, had a greater distributional range and were individually more adapted to distinct habitats. The gorgonids showed special adaptations to fluctuating environmental conditions and modified growth forms to meet the demands of the environment. Most species of shallow-water gorgonians appeared to show some degree of habitat preference. Inshore species were often found in reef areas, but reef species were rarely found in areas where temperature, salinity and sedimentation were variable.

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ACC 2522; TYPE P; YEAR 1974
OPRESKA, D.M.;
RECOLONIZATION AND REGROWTH OF A POPULATION OF THE GORGONIAN PLEXAURA HOMOMALLA.

BIBL STUD. TROP. OCEANOGR. MIAMI 12:101-110.

KEYWORD: Dade, gorgonian, growth, recruitment, reef

ABSTRACT: The size and structure of a population of the gorgonian Plexaura homomalla at a small patch reef near Miami, Florida were investigated. The population density, standing crop, and colony size of P. homomalla were determined. The growth rate of individual colonies and rate of recruitment for populations on cleared and uncleared reef areas were estimated. Age of individual colonies appeared to be closely correlated with the number of concentric rings on the basal part of the axis.

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ACC 2457; TYPE P; YEAR 1975
OREMLAND, R.S.;
METHANE PRODUCTION IN SHALLOW WATER TROPICAL MARINE SEDIMENTS.

BIBL APPL. MICROBIOL. 30(4):602-608.

KEYWORD: Monroe, sediment, coral, reef, seagrass, metabolism

ABSTRACT: Production of methane in Thalassia testudinum and Syringodium sp. beds located in Caesar Creek, Florida Keys, was measured. T. testudinum beds showed higher methane production than either Syringodium sp. beds or two coral reefs. Methane production rates seem to be influenced by a wide range and type of benthic metabolic processes.

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ACC 2218; TYPE P; YEAR 1979
OSBORNE, N.M.;
THE INFLUENCE OF SEDIMENT CHARACTERISTICS AND SEAGRASS SPECIES ON THE DISTRIBUTION AND ABUNDANCE OF POLYCHAETOUS ANNELIDS IN NORTH FLORIDA SEAGRASS BEDS.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL.

KEYWORD: sediment, seagrass, polychaete, grain size

ABSTRACT: The distribution ahd abundance of polychaetes in seagrass beds was investigated in St. Josephs Bay, Florida, in relation to seagrass species composition and leaf area, sediment organic content. and sediment stability. Of 3 polychaete communities from adjacent Thalassia testudinum beds with different sediment characteristics 2 were affected by sediment composition, while the third community was influenced by leaf biomass. Infaunal trophic structure did not vary significantly between sites. In a separate study phase. polychaete species composition and infaunal trophic structure varied sharply along a transect through a seagrass bed containing 3 species of seagrass. Variations in community structure were related to plant density. seagrass species composition, and sediment stability.

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ACC 2329; TYPE P; YEAR 1979
OSBORNE, S.W.;
THE SEASONAL DISTRIBUTION OF LUIDIA CLATHRATA (SAY) IN CHARLOTTE HARBOR WITH REFERENCE TO VARIOUS PHYSICAL-CHEMICAL PARAMETERS.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE. FL.

KEYWORD: Charlotte, seasonal, distribution, growth, echinodermata, depth, temperature, DO, salinity

ABSTRACT: The distribution of the sea star Luidia clathrata in Charlotte Harbor, Florida was determined from monthly collections at 23 stations during 1976 and 1977. Seasonal variations in the distribution of L. clathrata was influenced primarily by sporadic larval settlement during January through August, and by decreased oxygen conditions in late summer associated with increased flow of the Peace River. An annual population of L. clathrata was identified in upper Charlotte Harbor. A monthly growth rate of 13.3 mm/30 d indicated an annual breeding cycle.

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ACC 2126; TYPE P; YEAR 1976
OSTERLING, M.J.;
REPRODUCTION, GROWTH, AND MIGRATION OF BLUE CRABS ALONG FLORIDA'S GULF COAST.

BIBL MAR. ADVIS. PROG., FLA. SEA GRANT PUBL. SUSF-SG-76-003. 19 P.

KEYWORD: reproduction, growth, migration, blue crab, tagging, population, decapod

ABSTRACT: The reproduction, growth, and migration of blue crabs along Florida's Gulf coast were studied from November 1974 through December 1975. It was determined that male crabs remained in their general home estuary after tagging. Female crabs did travel further than males, relative to their home estuary. Migrations of females were determined to be directly linked to reproduction. It was observed that the blue crab population along Florida's Gulf coast behaves in an onshore/along shore pattern rather than an onshore/offshore pattern as formerly believed.

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ACC 588; TYPE ; YEAR 1984
OTVOS, E.G.;
ALTERNATE INTERPRETATIONS OF BARRIER ISLAND EVOLUTION, APPALACHICOLA COAST, NORTHWEST FLORIDA.

BIBL LITORALIA 1(1). (IN PRESS).

KEYWORD: foraminifera, Holocene, Quaternary, barrier island, coastal water, evolution, geology, geologic history

ABSTRACT: Not available.

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ACC 114; TYPE ; YEAR 1982
OVERSTREET, R.M.; HEARD, R.W.;
FOOD CONTENTS OF SIX COMMERCIAL FISHES FROM MISSISSIPPI SOUND.

BIBL GULF RES. REP. 7(2):137-150.

KEYWORD: biology, coastal water, ecology, feeding habit, fish, crustacean, shrimp, mollusc, polychaete, blue crab

ABSTRACT: Specific dietary contents from six fishes collected in Mississippi Sound are recorded. In order of their importance, primary components grouped in major taxonomic categories were fishes, penaeid shrimps, and other crustaceans for Cynoscion nebulosus: crustaceans and fishes for C. arenarius; fishes and crustaceans for C. nothus; crustaceans, pelecypods, and polychaetes for Pogonias cromis; crustaceans, molluscs, polychaetes, and fishes for Archosargus probatocephalus; and fishes and penaeid shrimps for Paralichthys lethostigma. Principal items in the diets of most of the fishes included Anchoa mitchilli, Penaeus aztecus, P.

setiferus, and Callinectes sapidus. Those crustaceans show that competition exists for commercial shellfishes in Mississippi Sound. Ratios among the different dietary items vary, according at least to species of fish, length of fish, season, specific location, and abundance of available prey. Some of these variations are documented and are additionally related to selected findings by other authors sampling different localities. We suggest that examination of food items in Archosargus probatocephalus can serve as a practical means to sample and assess seasonal prevalence and abundance of a wide range of invertebrates throughout different habitats in Mississippi Sound and elsewhere.

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ACC 156; TYPE ; YEAR 1982
OVERSTREET, R.M.;
ABIOTIC FACTORS AFFECTING MARINE PARASITISM. P. 36-39.

IN: D.F. METTRICK AND D.F. DRESSER, EDS. FIFTH INTERNATIONAL CONGRESS OF PARASITOLOGY PROCEEDINGS AND ABSTRACTS. AUGUST 7-14, 1982. TORONTO, CANADA.

BIBL FIFTH INTERNATIONAL CONGRESS OF PARASITOLOGY.

KEYWORD: biology, coastal zone, fish, infectious disease, parasite, pathology, stress

ABSTRACT: Not available.

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ACC 161; TYPE ; YEAR 1976
OVERSTREET, R.M.; EDWARDS, R.H.;
MESENCHYMAL TUMORS OF SOME ESTUARINE FISHES OF THE NORTHERN GULF OF MEXICO. II. SUBCUTANEOUS FIBROMAS IN THE SOUTHERN FLOUNDER, PARALICHTHYS LETHOSTIGMA AND THE SEA CATFISH, ARIUS FELIS.

BIBL BULL. MAR. SCI. 26(1):41-48.

KEYWORD: biology, fish, histology, tumor, pathology

ABSTRACT: We describe benign subcutaneous mesenchymal fibromas in the southern flounder and in the sea catfish collected in estuarine and marine water of Mississippi. Under the gular membrane of the flounder occurred two pseudoencapsulated tumors, whereas only a single deeply-embedded non-capsulated one occupied an area at the base of the catfish's anal fin. Because the latter tumor had a chondromatous component, we consider it a chondrofibroma. Tumors from both fish displayed morphological similarities, including tumor cell characteristics. They contained abundant collagen, and both incorporated bony and cartilaginous spicules. The etiology of those from the flounder could be related to a philometrid nematode or a didmozoid trematode. This report represents the first describing tumors from Paralichthys lethostigma and Arius felis and one of the few involving tumors from any fishes in the Gulf of Mexico.

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ACC 891; TYPE ; YEAR N/AR
OVERSTREET, R.M.;
AN UNDEREXPLOITED GULF COAST FISHERY: SOFT SHELL CRABBING.

BIBL GULF COAST RESEARCH LABORATORY, OCEAN SPRINGS. MS.

KEYWORD: benthic fauna, parasite, commercial fishery, blue crab, pathology

ABSTRACT: The potential use of soft shell crabs as a major food source was analyzed. Parasites which inhabit soft shell crabs were reported on as well as methods for food preparation.

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ACC 4260; TYPE P; YEAR 1980
OVERTONA, E.B.; LASETTER, J.L.;
DISTRIBUTION OF AROMATIC HYDROCARBONS IN SEDIMENTS FROM SELECTED ATLANTIC, GULF OF MEXICO, AND PACIFIC OUTER CONTINENTAL SHELF AREAS.

PRESENTED AT 176 MEETING AMERICAN CHEMICAL SOCIETY. MIAMI BEACH, FL. USA 13 SEPT 1978.

BIBL AMERICAN CHEMICAL SOCIETY, WASHINGTON. D.C.

KEYWORD: distribution, hydrocarbon, sediment, pollution, aliphatic compounds

ABSTRACT: Approximately 100 near-surface sediments from selected Atlantic, Gulf of Mexico, and Southern California OCS areas were analyzed. Hydrocarbon components were extracted by reflux with hexane and benzene. The aromatic components were isolated by silica gel absorption chromatography and were analyzed by high-resolution gas chromatography and GC-MS methods. Total aromatics ranged from 9.0 to 1080 ng/g dry weight of sediment. Aliphatics were present from 3 to 5 times higher in concentration than aromatics. Pristane:phytane ratios were generally 1:6 in samples that were rich in aromatic components. In

terms of relative abundance, two-ring PAHs were more abundant than three rings, which were more abundant than four rings. Alkyl substitution was common in the two- and three-ring PAHs. Little alkyl substitution was observed in the four or more ring systems. Correlations of aromatic types with geographic distribution and contemporary petroleum sources are discussed.

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ACC 402; TYPE ; YEAR 1983
PALMER, C.R.; KELLY, P.L ;
AMERICA'S FIVE YEAR OFFSHORE LEASING PLAN - IT'S IMPORTANCE IN INCREASING DOMESTIC PETROLEUM RESERVES.

IN 23RD ANNUAL INSTITUTE ON PETROLEUM EXPLORATION AND ECONOMICS, DALLAS. TX. MARCH 10, 1983. 28 P.

BIBL NA

KEYWORD: drilling, exploration, industry, offshore water, oil, reserve, socioeconomic

ABSTRACT: Not available.

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ACC 4281; TYPE P; YEAR 1979
PAMATMAT, M.M.;
BENTHIC COMMUNITY METABOLISM ON THE CONTINENTAL SHELF OF THE NORTHERN GULF OF MEXICO (BASELINE STUDY TO DETERMINE EFFECTS OF OFFSHORE OIL RIG OPERATIONS).

BIBL DEPT. OF FISHERIES AND APPLIED AQUACULTURES, AUBURN UNIV, AL. 8 P.

KEYWORD: benthic, community, continental shelf, oil, ATP, turbidity, sediment, metabolism, polychaete, mollusc, offshore, operations

ABSTRACT: Rates of oxygen uptake on the continental shelf indicate large temporal changes and significant differences between stations. Similar measurements at 10, 50, and 100 m distance from an operating oil rig revealed rates of benthic community metabolism that have no apparent effect from the oil rig presence and operation. Anaerobic experiments on pure cultures of Clostridium sporogenes and Bacteroides sp. and on a mixed culture of mostly Bacteroides with an unidentified coccus, showed highly significant correlations between various measures of metabolic activity and standing stock. The excellent correlations between ATP, turbidity, total dehydrogenase activity, and rate of heat production hold through the stationary phase of growth; thereafter the correlation breaks down. Highly significant but variable regressions of heat production rate on ATP concentration in sediments may be a fairly good estimate of living microbial biomass but the same concentration of ATP in different locations at various times could represent different levels of metabolic activity. Anaerobic metabolism of bivalves and a polychaete is a linear function of body size. There is no significant difference between species. The pooled average weight-specific heat production rate is 1.77 x 10/sup -4 W g/sup -1/ of dry tissue. Anaerobic metabolism is about 5% of aerobic metabolism in two bivalve species and indicates an energy saving during anaerobiosis.

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ACC 379; TYPE ; YEAR 1956
PARKER, R.H.;
MACROINVERTLBRATE ASSEMBLAGES AS INDICATORS OF SEDIMENTARY ENVIRONMENTS IN EAST MISSISSIPPI DELTA REGION.

BIBL AM. ASSOC. PET. GEOL. BULL. 40(2):295-376

KEYWORD: biology, macrofauna, benthic community, sediment, grain size, sedimentary deposit

ABSTRACT: Not available.

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ACC 380; TYPE ; YEAR 1960
PARKER, R.H.;
ECOLOGY AND DISTRIBUTIONAL PATTERNS OF MARINE MACROINVERTEBRATES, NORTHERN GULF OF MEXICO. P. 302-337.

IN: F.P. SHEPHARD, ED. RECENT SEDIMENTS NORTHWEST GULF OF MEXICO

BIBL AM. ASSOC. PET. GEOL., TULSA, OK.

KEYWORD: biology, macrofauna, benthic community, sedimentary deposit, assemblage, currents, oyster, sediment, geologic history, distribution, salinity, temperature, turbidity

ABSTRACT: As a result of a study based on three years of biological sampling in the east Mississippi Delta region, eight macro-invertebrate assemblages are recognized, each characteristic of a specific sedimentary environment ranging from the Mississippi Delta marshes to the edge of the continental shelf northeast of the Delta proper. The eight assemblages and their corresponding environments are: (1) the delta marshes, (2) delta front and lower distributaries, (3) lower Breton Sound and lower pro-delta clayey slopes, (4) upper Breton Sound, (5) inlets, or areas of strong currents, (6) the shallow continental shelf of the Gulf of Mexico from 0 to 12 fathoms, (7) the deeper part of the continental

shelf from approximately 13 fathoms to 60 fathoms, and (8) the living oyster reefs of the shallow protected bays of the Delta region. The boundaries of these environments were established by plotting the distributions of both living and dead representatives of species of invertebrates furnishing hard parts plus the distributions of living soft-bodied animals which were so abundant as to characterize regions where animals with hard parts were scarce though present. Comparison of the distribution of the hydrographic factors with the physiography of the landmasses in this area with the macro-organism distributions made it possible to formulate criteria for the interpretation of ancient environments as far back as the Miocene on the Gulf and Atlantic coasts. Paleontologic literature shows that most of the present-day delta species have been found in the Pliocene, and most of the diagnostic forms have existed since the lower Miocene. The primar..

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ACC 444; TYPE : YEAR 1971
PARKER, J.C.:
BIOLOGY OF THE SPOT (LEIOSTOMUS XANTHURUS) AND ATLANTIC CROAKER (MICROPOGON UNDULATUS) IN TWO GULF OF MEXICO NURSERY AREAS.

BIBL AGRICULTURAL EXTENSION SERVICE, TEXAS A&M UNIVERSITY, SEA GRANT PUBLICATION TAMU-56-71-210.

KEYWORD: biology, ecology, feeding habit, fish, spawning

ABSTRACT: Not available.

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ACC 2127; TYPE P; YEAR 1981
PARKER, P.L.;
ORGANIC GEOCHEMISTRY IN THE NATURAL SETTING OF THE GULF OF MEXICO

IN: PROCEEDINGS OF A SYMPOSIUM ON ENVIRONMENTAL RESEARCH NEEDS IN THE GULF OF MEXICO, KEY BISCAYNE, FL. 30 SEPT-OCT 1979. D.K. ATWOOD. (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LAB., MIAMI, FLA. VOL. IIC, P. 103-130.

KEYWORD: geochemistry, seagrass, sediment, carbonate, algae

ABSTRACT: This summary paper reviews the state of knowledge on the organic geochemistry of particulate and dissolved organic matter, blue green algal mats, marsh and seagrass environments, coastal sediments, carbonates, and amino acids, and deep sea sediments of the Gulf of Mexico. Scarcity of available data is noted and recommendations for future studies provided.

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ACC 4117; TYPE P; YEAR 1983
PARKER, R.O., JR.; COLBY, D.R.; WILLIS, T.D.;
ESTIMATED AMOUNT OF REEF HABITAT ON A PORTION OF THE U.S SOUTH ATLANTIC AND GULF OF MEXICO CONTINENTAL SHELF.

BIBL BULL. MAR. SCI. 33(4):935-940.

KEYWORD: reef, community, fish, biomass, distribution, biology, habitat, live bottom, coral, sponge

ABSTRACT: The amount of reef habitat (rock, coral, and sponge) on the continental shelf of the South Atlantic and Gulf coasts of the U.S. was estimated by viewing the seafloor using an underwater television lowered at randomly selected points within five strata: (1) Capa Hateras to Cape Fear, North Carolina; (2) Cape Fear, North Carolina to Cape Canaveral, Florida; (3) Key West to Pensacola, Florida; (4) Pensacola, Florida to Pass Cavallo, Texas; and (5) Pass Cavallo to Rio Grande, Texas. The water depth range of the observations was 27 to 101 m along the Atlantic coast and 18 to 91 m in the Gulf of Mexico. Of the total area surveyed (251,000 sq. kilometers), 22.8% was reef habitat. The highest incidence of reef habitat (38.0%) was on the continental shelf between Key West and Pensacola, Florida. The Florida Middle Grounds was the only area where vertical reef exceed 1 m.

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ACC 4118; TYPE P; YEAR 1981
PARRA, C.G.; FORSYTHE, R.G.; PARSONS, C.L.;
GULF OF MEXICO SATELLITE RADAR ALTIMETRY.

BIBL NASA TECHNICAL ME. 73295. 230 P.

KEYWORD: dynamic height, physical, oceanography, remote sensing, Seasat, topography, wind, wave

ABSTRACT: The radar altimeter aboard both GEOS-3 and Seasat provided direct measurements of the sea surface with an accuracy of plus or minus 20 cm for one second averaging. This offers a direct way to measure the dynamic topography by subtracting such values from a gravimetric geoid. These measurements, when combined with those from many passes, yield average ocean topographies which can be mapped. Seasonal deviations from a three year mean topography are presented here. The altimeters are also instrumented with sample and hold gates which provide information about the shape and amplitude of the return waveform. This information can be used to determine a number of interesting and useful parameters including ocean surface wind speed and the significant wave height. One hundred eighty-six wind speed and significant wave height histograms are presented here.

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ACC 2191; TYPE P; YEAR 1981
PAWSON, D.L.; MILLER, J.E.; HOSKIN, C.M.;
DISTRIBUTION OF HOLOTHURIA LENTIGINOSA ENODIS MILLER AND PAWSON IN RELATION TO A DEEP-WATER OCULINA CORAL REEF OFF FORT PIERCE, FLORIDA (ECHINODERMATA: HOLOTHUROIDEA).

BIBL INTERNATIONAL ECHINODERM CONFERENCE, TAMPA, FL.

KEYWORD: reef, coral, distribution, currents, echinoderm

ABSTRACT: A population of Holothuria lentiginosa enodis is associated with a reef of the ahermatypic coral Oculina varicosa Lesueur in a depth of 75 m approximately 30 km northeast of Fort Pierce Inlet, Florida. Transects 2 m wide by 80 m long were run in 3 directions from each of 4 permanent markers near the reef 11 times over a 2 year period, counting holothurians in 10 m increments. A patchy distribution was found with a maximum density of 2.2 individuals per square meter. There was no apparent correlation of distribution with prevailing Gulf Stream currents. Holothurians usually occurred in areas where organic content of substratum averaged 4.4 (dry weight); they were usually absent in areas where organic content averaged 3.3% or less.

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ACC 2346; TYPE P; YEAR 1969
PAYNE, R.G.;
A COMPARATIVE STUDY OF POPULATION DYNAMICS OF THE ESTUARINE ISOPOD CYATHURA POLITA (STIMPSON) FROM FLORIDA AND GEORGIA.

BIBL MASTER'S THESIS. EMORY UNIVERSITY.

KEYWORD: Lee, distribution, population dynamics, temperature, salinity, DO, currents

ABSTRACT: A comparative study was made of two latitudinally separate populations of the estuarine isopod Cyathura polita to obtain information about the substratum preference of this species and about other factors which affect the densities and distributions of the populations within areas of preferred substratum. Distribution with respect to substratum type was determined for both populations. A new index of the stability of the substratum was used to characterize the types of substrata found in both habitats. Population factors studied included: a) density; b) internal distribution, and c) size class distribution. Routine measurements of physical parameters were made in both locations. In the Fort Myers location, the short term tolerance limit of Cyathurans to high levels of salinity was determined. Both populations of the present study occurred only in stable substratum although the composition of substrata in the two locations was quite different. Both populations exhibited random internal distributions but the Fort Myers population was somewhat denser than the Brunswick population. The size distribution of the Fort Myers population exhibited a decided peak at 17 mm, but no predominance of one size was evident at the Brunswick population. The values of physical parameters of the present study fell within the ranges of values obtained in previous studies of physical parameters in Cyathuran habitats. Biotic factors studied in both habitats included: a) predation; b) incidence of parasitism; c) food; and d) other associated fauna. Relative abundance of food elements, predatory species and other associated fauna were su...

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ACC 2523; TYPE P; YEAR 1936
PEARSON, J.F.W.;
STUDIES OF THE LIFE ZONES OF MARINE WATERS ADJACENT TO MIAMI. I. THE DISTRIBUTION OF THE OPHIUROIDEA.

BIBL PROC. FLA. ACAD. SCI. 1:66-72.

KEYWORD: Dade, distribution, habitat, abundance, echinodermata

ABSTRACT: A general survey of the distribution of ophiuroids was conducted in Biscayne Bay and the upper Florida Keys. Five zones were identified and their habitats described. The ophiuroid species of each zone and their general abundances were noted.

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ACC 4119; TYPE P; YEAR 1975
PEARMAN, A.L.; STAFFORD, J.W.;
FLORIDA COASTAL POLICY STUDY: IMPACT OF OFFSHORE OIL DEVELOPMENT.

BIBL A FINAL REPORT FOR THE FLORIDA ENERGY OFFICE AND THE STATE UNIVERSITY SYSTEM OF FLORIDA. 273 P.

KEYWORD: socioeconomic, oil and gas, coastal, management

ABSTRACT: The purpose of this study was to investigate the impacts of possible offshore oil and gas discoveries upon the coastal areas of Florida. Offshore oil and gas developments are examined from a number of perspectives: economic, environmental, legal, and social. The study was designed to identify a set of policy alternatives which can be implemented to guide and regulate onshore developments so as to minimize the adverse impacts upon the areas most directly affected. The analysis of onshore impacts is based, in part, upon a review of similar developments in other coastal areas. The development of an information base which can be applied to potential developments in Florida is viewed as an essential element of this study. This report presents the final results of the research efforts undertaken during this project. The report is structured so that introductory material is presented prior to more detailed analysis and discussion. The main report consists of ten chapters that present the major findings and recommendations of the study.

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ACC 169; TYPE ; YEAR 1983
PEQUEGNAT, W.E.;
THE ECOLOGICAL COMMUNITIES OF THE CONTINENTAL SLOPE AND ADJACENT REGIMES OF THE NORTHERN GULF OF MEXICO.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA.

KEYWORD: biology, chemistry, benthic community, coastal zone, continental slope, fauna, geology, demersal fish, echinoderm, crustacean, distribution

ABSTRACT: This report deals in part with the macrofaunal assemblages that exist in that part of the offshelf Gulf of Mexico that lies north of the 25th parallel and west of the eastern wall of DeSoto Canyon. The study was based on 264 oceanographic stations occupied by R/V ALAMINOS in depths ranging from 150 to 3850 m. Statistical analyses support subdividing the principal megabenthic components (echinoderms, crustaceans, and demersal fishes) of the assemblages into five well-defined faunal zones, four of which (Shelf-Slope Transition, Archibenthal, Upper Abyssal, and Mesoabyssal) are on the continental slope, and the fifth, the Lower Abyssal, occupies the continental rise and abyssal plain. The faunal assemblages comprising the zones are described in considerable detail and the numerically dominant species among important systematic groups are designated within each zone and its subdivisions. The geological, physicochemical, and biological bases for existence of zones and zonal subsets are discussed in detail, including an attempt to account for faunal differences between the eastern and western parts of the Gulf. Taking the area of the study as the deep Gulf ecosystem, the report also deals with the energy relationships among the biotic components of the system. Tentative explanations of the sources of energy that can balance the energy budget on the abyssal plain are advanced and discussed. The report contains three substantial appendices. Appendix A is an atlas of bottom photographs selected to depict some of the biological constituents, physiography and surficial sediments of the five faunal zones. Appendix B contains a list of...

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ACC 486; TYPE ; YEAR 1978
PEQUEGNAT, W.E.; SMITH, D.D.; DARNELL, R.M.; PRESLEY, B.J.; REID, R.O ,
AN ASSESSMENT OF THE POTENTIAL IMPACT OF DREDGED MATIRIAL DISPOSAL IN THE OPEN OCEAN.

BIBL U.S. ARMY CORPS OF ENGINEERS WATERWAYS EXPERIMENT STATION, VICKSBURG, MS. 645 PP.

KEYWORD: biology, chemistry, benthic community, coastal water, continental shelf, dredge spoil, dredging, ecosystem, fishery, neuston, geology, meteorology

ABSTRACT: Not available.

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ACC 2128; TYPE P; YEAR 1983
PEQUEGNAT, W.E.; ET AL.;
ECOLOGICAL COMMUNITIES OF THE CONTINENTAL SLOPE AND ADJACENT REGIMES OF THE NORTHERN GULF OF MEXICO. EXECUTIVE SUMMARY.

BIBL MINERALS MANAGEMENT SERVICE, U.S. DEPT. INT., WASHINGTON, DC. REPORT NO : MMS-GM-PT-83-018:46 P.

KEYWORD: infaunal, epifaunal, photodocumentation, continental, slope, oil exploration, benthic, community

ABSTRACT: A comprehensive overview of the deep sea benthic environment of the Gulf of Mexico from the continental slope to the abyssal plain is presented. Macroinfaunal and megaepifaunal samples and accompanying photographic documentation were acquired and analyzed from 1964-1973. An assessment was made of the potential impacts of gas and oil exploration land production on the benthic communities.

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ACC 2129; TYPE P; YEAR 1983
PEQUEGNAT, W.E.; ET AL.;
ECOLOGICAL COMMUNITIES OF THE CONTINENTAL SLOPE AND ADJACENT REGIMES OF THE NORTHERN GULF OF MEXICO: TEXT, PHOTOGRAPHIC ATLAS, AND APPENDICES (FINAL REPORT).

BIBL MINERALS MANAGEMENT SERVICE, U.S. DEPT. INT., WASHINGTON. DC REPORT NO. MMS-GM-PT-83-017:675 P.

KEYWORD: benthic, continental slope, infaunal, epifaunal, oil exploration, photodocumentation, community

ABSTRACT: A comprehensive overview of the deep sea benthic environment of the Gulf of Mexico from the continental slope to the abyssal plain is presented. Macroinfaunal and megaepifaunal samples and accompanying photographic documentation were acquired and analyzed from 1964-1973. An assessment was made of the potential impacts of gas and oil exploration land production on the benthic communities.

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ACC 2210; TYPE P; YEAR 1968
PEQUEGNAT, W.D.; PEQUEGNAT, L.H.;
ECOLOGICAL ASPECTS OF MARINE FOULING IN THE NORTHEASTERN GULF OF MEXICO

BIBL TEXAS A&M RESEARCH FOUND., A&M PROJ. 286-6, REF. 68-22T. 80 P.

KEYWORD: development, fouling, assemblage, depth, diversity, water mass, temperature, salinity, currents

ABSTRACT: The progressive development and reorganization of potential fouling assemblages in the northeastern Gulf of Mexico was followed. Differences in both species composition and diversity existing among the stations (located 2, 11, and 25 miles offshore) and at different origins and histories. The placement of the 25-mile fouling station in a region thought to be devoid of natural hard surfaces revealed the presence of pelagio larvae of epifaunal species that do not exist along the shore of Panama City. Oceanographic data indicated the possibility that some of these larvae may have been carried by currents from points as distant as Yucatan (about 400-500 nautical miles).

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ACC 2211; TYPE P; YEAR 1967
PEQUEGNAT, W.D.; GAILLE, R.S.; PEQUEGNAT, L.H.;
BIOFOULING STUDIES OFF PANAMA CITY, FLORIDA. II. THE TWO-MILE OFFSHORE STATION.

BIBL TEXAS A&M RESEARCH FOUND., A&M PROJ. 286-6. REF. 67-18T. 51 P.

KEYWORD: fouling, depth, season, temperature, salinity

ABSTRACT: Two arrays of plastic floats were installed at a station 2 miles offshore, one unprotected, the other with an organotin compound. Differences in the accumulations were accounted for through the influences of temperature, salinity, and organotin. The influences of distance from shore, depth, and season upon temperature and salinity were also evaluated

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ACC 4228; TYPE P; YEAR 1971
PEQUEGNAT, W.E.;
THE IMPACT OF WATER DEVELOPMENT ON ECOLOGY OF THE GULF OF MEXICO.

BIBL IN: WATER FOR TEXAS; PROC. 15TH ANNU. CONF. ON WATER FOR TEXAS. P. 91-113.

KEYWORD: ecology, biological, chemical, oceanography, biology, heavy metal, hydrocarbon, pollution, oil spill, fish

ABSTRACT: The impact of water development on the ecology of the Gulf of Mexico is discussed. Emphasis is on those characteristics of the Gulf that affect its biological nature and that in the final analysis either accentuate or ameliorate those activities of man that impinge upon it continuing viability. These characteristics are discussed under the subheads of physiography, physicochemical oceanography, and biology. A possible way to minimize the deleterious effects of the rising trend to dispose of dangerous wastes in the coastal waters of all our shores is outlined. Potentially industrial wastes pose the most serious threat to the welfare of coastal waters. The multiplication of oil drilling towers on the shelf in the Gulf appears to be destined for unabated increases. There will be increasing deposits of heavy metals and a variety of chlorinated and other hydrocarbons. Marine organisms through and because of the nature of the food web can concentrate and become relatively immune to some bacteria, viruses, heavy metals, and some hydrocarbons having carginogenic properties. This can result in two things: 1) the list of marine organisms killed will increase, and 2) a larger reservoir of inedible species will be created.

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ACC 771; TYPE ; YEAR 1969
PEREZ-FARFANTE, I.;
WESTERN ATLANTIC SHRIMPS OF THE GENUS PENAEUS.

BIBL FISH. BULL. 67(3):461-591.

KEYWORD: biology, ecology, commercial fishery, shrimp, distribution, species composition

ABSTRACT: Four subgenera of the genus Penaeus are described. Eight species and sub-species are recognized as occurring in the Western Atlantic. Synonymies are given. Diagnosis, descriptions and illustrations are presented for each species and subspecies. Geographic and bathymetric distributions are given. A brief appraisal of the commercial importance of each form is also given.

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ACC 2031; TYPE P; YEAR 1975
PERKINS, T.H.; SAVAGE, T.;
A BIBLIOGRAPHY AND CHECKLIST OF POLYCHAETOUS ANNELIDS OF FLORIDA, THE GULF OF MEXICO, AND THE CARIBBEAN REGION.

BIBL FLA. MAR. RESEARCH PUBL. NO. 14, 62 P.

KEYWORD: bibliography, polychaete

ABSTRACT: A bibliography and checklist of polychaete species recorded from northern Brazil to northern Florida, including the West Indies, the Bahama Islands, northern South America, eastern Central America, and the Gulf of Mexico were reported. The checklist was annotated to update the taxonomy of the species included, and species names were cross-referenced to bibliographic citations.

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ACC 331; TYPE ; YEAR 1980
PHARES, P.L.;
ESTIMATES OF NATURAL AND FISHING MORTALITY FOR WHITE SHRIMP IN THE GULF OF MEXICO.

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST FISHERIES CENTER, MIAMI, FL NOAA-TM-NMFS-SEFC-58. 25 PP.

KEYWORD: biology, coastal water, fishery, mortality, shrimp, statistics, management

ABSTRACT: Not available.

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ACC 871; TYPE ; YEAR 1968
PHILLIPS, P.J.;
SUBSTRATE AS A FACTOR IN HABITAT ISOLATION OF MISSISSIPPI SOUND MUDSHRIMPS, CALLIANASSA JAMAICENSE LOUISIANENIS SCHMITT AND CALLIANASSA ISLAGRANDE SCHMITT, WITHIN MISSISSIPPI SOUND.

BIBL MASTER'S THESIS. MISSISSIPPI STATE UNIVERSITY. 65 PP.

KEYWORD: benthic fauna, salinity, sediment texture, water level, crustacean, distribution

ABSTRACT: The purpose of this study was to determine whether substrate type is a factor influencing distribution of the thalassinid crustaceans, Callianassa jamaicense louisianensis Schmitt and Callianassa islagrande Schmitt, within Mississippi Sound. This was a 6 month study which began in December, 1966.

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ACC 2032; TYPE P; YEAR 1981
PHILLIPS, R.C.; MCMILLAN, C.; BRIDGES, K.W.;
PHENOLOGY AND REPRODUCTIVE PHYSIOLOGY OF THALASSIA TESTUDINUM FROM THE WESTERN TROPICAL ATLANTIC.

BIBL AQUAT. BOT. 11(3):263-277.

KEYWORD: phenology, reproductive, seagrass, physiology, temperature

ABSTRACT: Phenological investigations of Thalassia testudinum from seagrass beds at 5 sites in Texas, Florida, and St. Croix, U.S. Virgin Islands, and laboratory reproductive physiology studies indicate that flowering occurs in response to temperature patterns following winter minimum temperatures. Phenological analyses showed that flowering of T. testudinum may be nearly synchronous at all sites, but temperature responses of St Croix plants are probably genotypically different from those of Florida and Texas. No significant site differences that were related to latitude were found for the five phenophases investigated. Seagrass from all locations produced flowers under continuous light, indicating that photo period is not a significant controlling factor in flowering phenology.

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ACC 2244; TYPE P; YEAR 1960
PHILLIPS, R.C.; SPRINGER, V.G.;
OBSERVATIONS ON THE OFFSHORE BENTHIC FLORA IN THE GULF OF MEXICO OFF PINELLAS COUNTY, FLORIDA.

BIBL AM. MIDLAND NAT. 64(2):362-381.

KEYWORD: algae, temperature, depth, flora, reef, distribution

ABSTRACT: Collections of marine algae from the limestone reefs 9 to 20 miles offshore Pinellas County in 35 to 60 ft of water were studied. Eleven species were newly reported for the state and 47 species represented northward range extensions from the Dry Tortugas. A somewhat constant relationship between the various algae groups was seen. The factors that might regulate the relationships were reported undetermined.

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ACC 2347; TYPE P; YEAR 1960
PHILLIPS, R.C.; SPRINGER, V.G.;
A REPORT ON THE HYDROGRAPHY, MARINE PLANTS AND FISHES OF THE CALOOSAHATCHEE RIVER, LEE COUNTY, FLORIDA.

BIBL FLORIDA BOARD OF CONSERVATION. SPEC. SCI. REPT. NO. 5. 34 P.

KEYWORD: Lee, hydrography, fish, temperature, salinity, turbidity, flora, fauna

ABSTRACT: The marine plants and fishes of the Caloosahatchee River are surveyed in May 1958 and in February 1959. A total of 45 taxa of algae and 6 taxa of aquatic flowering plants were found. Fifty three fish species were collected. In general the fish fauna of the river was poor in numbers and species. Species lists of marine plants and fish are presented.

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ACC 2458; TYPE P; YEAR 1959
PHILLIPS, R.C.;
NOTES ON THE MARINE FLORA OF THE MARQUESAS KEYS, FLORIDA.

BIBL QUART. J. FLA. ACAD. SCI. 22(3):155-162

KEYWORD: Monroe, algae, seagrass, substrate, depth, flora

ABSTRACT: A single sampling of six stations in depths less than 14 ft around the Marquesas Keys was conducted to describe the local marine flora. Dense growths of Thalassia testudinum were present at all stations in depths generally less than 7 ft. Diplanthera wrightii was found at 3 stations, and sparse patches of Syringodium filiforme occurred at 2 stations. Halimeda grew in large clumps around the Keys, both inside on

mudflats and offshore, at least to the 3 to 7 ft depth at spring low tide. The bottom of the shoreline of the Keys was composed of finely ground Halimeda segments. Twenty three species of algae were reported, 12 of which are epiphytic. A species list of the plants is included.

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ACC 2130; TYPE P; YEAR 1983
PIERCE, R.H.; BROWN, R.C.;
HYDROCARBON ANALYSIS OF SURFICIAL SEDIMENT IN SUPPORT OF SOUTHWEST FLORIDA SHELF REGIONAL BIOLOGICAL COMMUNITIES SURVEY CRUISE II, 1982 AND CRUISE III, 1983.

BIBL FINAL REPORT PREPARED FOR: MINERALS MANAGEMENT SERVICE CONTRACT #AA851-CT2-48. SUBCONTRACT FROM: CONTINENTAL SHELF ASSOC., TEQUESTA, FL.

KEYWORD: sediment, biological, community, hydrocarbon, drilling, petroleum, pollution

ABSTRACT: Hydrocarbons from soft bottom sampling sites on the Southwest Florida shelf were analyzed to determine predrilling conditions and to provide cause and effect relationships with biological community surveys for assessing impacts from future oil drilling operations. Petroleum contamination in the areas studied was not apparent.

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ACC 2310; TYPE P; YEAR 1984
PIERCE, R.H.; BROWN, R.C.;
COPROSTANOL DISTRIBUTION FROM SEWAGE DISCHARGE INTO SARASOTA BAY, FLORIDA.

BIBL BULL. ENVIRON. CONTAM. TOXICO. 32:75-79.

KEYWORD: Sarasota, sediment, pollution, water quality, physical process

ABSTRACT: Distribution of the fecal sterol, coprostonal, was determined in sediment from forty-one sites throughout Sarasota Bay. This project was part of a water quality study to estimate the impact of sewage effluent discharged from the City of Sarasota's wastewater treatment plant. Coprostonal is one of the principal sterols found in the feces of man and other mammals and has been shown to be a reliable marker of fecal pollution. A contour of coprostonal concentrations in Sarasota Bay showed very high concentrations at the site of the sewage outfall, indicating short-range deposition of sewage-derived particualte matter. Tidal action appeared to be the dominant influence on distribution of sewage derived particulate matter. Tidal action appeared to be the dominant influence on distribution of sewage-derived particulates in the Bay.

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ACC 2330; TYPE P; YEAR 1983
PIERCE, R.H.; VANVLEET, E.S.;
CHARLOTTE HARBOR HYDROCARBON STUDY, YEAR-2. FINAL REPORT. JANUARY 1, 1983--NOVEMBER 15, 1983.

BIBL SUBMITTED TO FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FLORIDA.

KEYWORD: Charlotte, hydrocarbon, sediment, mollusc, oyster, water column, pollution

ABSTRACT: Hydrocarbon content and characterization was obtained for surficial sediment, oysters and water from four areas in Charlotte Harbor, Florida. The areas represent different types of land use activity. The data characterize hydrocarbon contamination around Charlotte Harbor and provide information for predicting the impact for future development.

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ACC 270; TYPE ; YEAR 1981
PILGER, R.H.;
THE OPENING OF THE GULF OF MEXICO: IMPLICATIONS FOR THE TECTONIC EVOLUTION OF THE NORTHERN GULF COAST.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC. 31:377-381.

KEYWORD: geologic history, geology, plate tectonics, structure

ABSTRACT: Several lines of evidence suggest that the Gulf of Mexico opened synchronously with and in the same northwest-southeast direction as the central North Atlantic, from about 180 to 130 Ma. The Atlantic and Gulf spreading centers were linked by left-lateral transform faults across the Florida-Bahamas platform. To the west, spreading was accommodated by left-lateral transform faults (megashears) across Mexico. The basin and uplift structure of the northern Gulf Coast can be interpreted in terms of northwest-southeast rifting before Gulf and Atlantic opening began. Alternatively, early rifting could have been a result of north-south motion between North America and Africa-South America. The latter inference is suggested by correlations between pre-Mesozoic Florida and Africa basement terranes as well as the crustal fabric of the northern Gulf Coast. Basin formation in the northern Gulf Coast probably involved shallow, close-spaced graben-horst formation combined with larger scale ductile thinning of the lower crust during rifting. Following the end of rifting the sedimentary record indicates that the basin subsided in

and exponential manner, as would be predicted from thermal models of sedimentary basin formation.

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ACC 942; TYPE ; YEAR 1973
POAG, C.W.;
LATE QUATERNARY SEA LEVELS IN THE GULF OF MEXICO.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC. 23:394-400.

KEYWORD: Quaternary, geology, sea level, eustatic change

ABSTRACT: Not available.

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ACC 330; TYPE ; YEAR 1973
POLLARD, J.F.;
EXPERIMENTS TO REESTABLISH HISTORICAL OYSTER SEED GROUNDS AND TO CONTROL THE SOUTHERN OYSTER DRILL.

BIBL LOUISIANA WILDLIFE AND FISHERIES COMMISSION, DIVISION OF OYSTERS, NEW ORLEANS, LA. TECHNICAL BULLETIN 6. 89 PP.

KEYWORD: biology, coastal water, hydrology, oyster fishery, oyster, predation, management

ABSTRACT: Not available.

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ACC 613; TYPE ; YEAR 1982
POPENOE, P.; COWARD, L.; CASHMAN, K.V.;
A REGIONAL ASSESSMENT OF POTENTIAL ENVIRONMENTAL HAZARDS TO AND LIMITATION ON PETROLEUM DEVELOPMENT OF THE SOUTH-EASTERN U.S. ATLANTIC CONTINENTAL SHELF, SLOPE AND RISE, OFFSHORE NORTH CAROLINA.

BIBL U.S. GEOLOGICAL SURVEY, OPEN-FILE REPORT NO. 82-136. 67 PP.

KEYWORD: sediment, continental shelf, continental slope, geology, physical process, stratigraphy, petroleum, development

ABSTRACT: Not available.

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ACC 4120; TYPE P; YEAR 1970
POTTHOFF, T.; RICHARDS, W.J.;
JUVENILE BLUEFIN TUNA, THUNNUS THYNNUS (LINNAEUS), AND OTHER SCOMBRIDS TAKEN BY TERNS IN DRY TORTUGAS, FLORIDA.

BIBL BULL. MAR. SCI. 20(2):389-413.

KEYWORD: biology, fish, bird, distribution, food habit, predation, ichthyoplankton, pelagic fish, life history

ABSTRACT: The identification and seasonal distribution of juvenile scombrids in the waters near the Dry Tortugas, Florida, are described. Specimens were collected (1960 through 1967) from regurgitated food of terns. Fishes identified were Thunnus thynnus, Thunnus atlanticus, Euthynnus alletteratus, Auxis spp., and Katsuwonus pelamis; sizes ranged from 24 to 146 mm, standard length. For the first time, juvenile bluefin tunas are reported in the Dry Tortugas region; their presence may indicate that spawning of the species takes place in that area. Identification methods are discussed, with special emphasis on features of the axial skeleton and the number of gill-rakers over the ceratobranchial bone of the first gill arch. A method is presented for estimating the standard length of damaged specimens on the basis of the length of the vertebral column.

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ACC 775; TYPE ; YEAR 1984
POWELL, J.A.; RATHBUN, G.B.;
DISTRIBUTION AND ABUNDANCE OF MANATEES ALONG THE NORTHERN COAST OF THE GULF OF MEXICO.

BIBL NORTHEAST GULF SCI. 7(1):1-28.

KEYWORD: biology, ecology, life history, manatee, migration, species composition, distribution, mortality, endangered species

ABSTRACT: A review of historical and recent records of manatee (Trichechus manatus) sightings along the coast of the northern Gulf of Mexico indicates that their numbers have declined in Texas, but increased in Louisiana and Mississippi. This is due to their extirpation in Mexico and dramatic increase along the southern Big Bend coast of Northwestern peninsular Florida. The distribution of manatees along the southern Big Bend coast is related to their need for warm water and the distribution of fresh water and submerged aquatic and marine food plants. The spring-fed headwaters of Crystal and Homosassa rivers are important warm water winter refuges, nearly 90% of the same individuals return each winter. The estuaries and grass beds associated with these two rivers and the Suwannee, Withlacoochee, and Chasshowitzka rivers are the principal summer habitats. The Suwanee and Crystal rivers are "high-use" rivers, whereas the other three are "low-user" rivers. Low human-caused mortality, high fecundity, some immigration, and high site fidelity are responsible for the increasing numbers of manatees using the southern Big Bend coast. Since this region of Florida has experienced relatively little development compared with the rest of the state, the best long-term future for this endangered

marine mammal in the United States lies along the southern Big Bend coast.

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ACC 4121; TYPE P; YEAR 1986
POWELL, G.V.N.; SOGARD, S.M.; HOLMQUIST, J.G.;
ECOLOGY OF SHALLOW-WATER BANK HABITATS IN FLORIDA BAY.

BIBL A FINAL REPORT FOR THE SOUTH FLORIDA RESEARCH CENTER. CONT. #CX5280-3-2339. 260 P.

KEYWORD: biology, biomass, ecology, fish crustacea, invertebrate, migration, tide, seagrass, coastal

ABSTRACT: Report not available for abstracting at this time.

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ACC 4259; TYPE P; YEAR 1977
POWLES, H.;
LARVAL DISTRIBUTIONS AND RECRUITMENT HYPOTHESES FOR SNAPPERS AND GROUPERS OF THE SOUTH ATLANTIC BIGHT. PRESENTED AT 31ST ANNUAL CONFERENCE OF THE SOUTHEASTERN ASSOCIATION OF FISH AND WILDLIFE AGENCIES SAN ANTONIO, TX (USA) 9 OCTOBER 1977.

BIBL PECHES ET SCI. MER. CP 15500, QUEBEC, QUE. G1K 7X7 CANADA 31:362-371.

KEYWORD: distribution, recruitment, snapper, grouper, larvae, neuston, currents, neuston

ABSTRACT: Present taxonomic status permits discussion of larvae of vermilion snapper (Rhomboplites aurorubens), other snappers combined (Lutjanidae), and all groupers combined (Serranidae subfamily Epinephelinae). Larvae oi these groups together comprise less than 1% of the total larval fish catch from neuston and bongo samplers, in shelf waters of the South Atlantic Bight. Larvae of groupers and snappers are most abundant in spring and in summer respectively. Larvae are distributed in outer shelf and upper slope waters, where current is northerly. Northerly current may predominate in affecting larval drift (in which case populations may primarily be recruited from Caribbean Gulf of Mexico) or a significant proportion of larvae spawned in the Bight may be retained by currents throughout development to settling.

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ACC 1103; TYPE ; YEAR 1967
PRESNELL, M.W.; ET AL.;
CLOSTRIDIUM BOTULINUM IN MARINE SEDIMENTS AND IN THE OYSTER (CRASSOTREA VIRGINICA) FROM MOBILE BAY.

BIBL APPLIED MICROBIOLOGY 15:668-669.

KEYWORD: benthic fauna, microfauna, bacteria, oyster, sediment, distribution

ABSTRACT: From August, 1965 to June, 1966, 74 marine sediment samples and 74 oyster samples were examined from 5 stations. An attempt was made to show a correlation between the occurrence and distribution of Clostridium botulinum and natural variation in the estuarine environment.

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ACC 2131; TYPE P; YEAR 1977
PRESLEY, B.J.; DOBSON, M.C.; SHOKES, R.F.; TREFRY, J.H.;
HEAVY METAL ANALYSIS OF BOTTOM SEDIMENT ON THE WEST FLORIDA SHELF.

BIBL TECHNICAL REPORT SUBMITTED TO THE BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. (MAFLA-OCS PROGRAM).

KEYWORD: sediment, heavy metal, trace metal, MAFLA, carbonate, grain size

ABSTRACT: Sediments were collected from the MAFLA lease area and analyzed for heavy metals. Of 42 stations 21 were sampled on two different occasions. Wide variations were found in the % Fe, % CaC03 and % fine-grained material not only in the MAFLA area but even within transects. Trace metals showed similar variability. Fundamental sediment characteristics were shown to correlate with metal concentrations. Data show that Fe may be used as an index for predicting trace metal concentration, thus providing a means for assessing possible future anthropogenic input.

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ACC 2311; TYPE P; YEAR 1975
PRICE, G.B.;
AN INTRODUCTION TO THE MARINE FLORA AND FAUNA OF THE SARASOTA AREA.

BIBL BACHELOR'S THESIS, NEW COLLEGE OF THE UNIVERSITY OF SOUTH FLORIDA.

KEYWORD: Sarasota, geology, coastal morphology, invertebrate, flora, fauna

ABSTRACT: This general overview of the marine flora and fauna of the Sarasota, Florida area includes sections on the regional geology, coastal morphology, mangrove and beach ecosystems, and the bentic macroinvertebrates of Sarasota Bay. The extent of manmade alterations to the shoreline are cited and

species lists of benthic invertebrates and marsh flora are given.

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ACC 532; TYPE ; YEAR 1962
PRIDDY, R R.;
MISSISSIPPI SOUND HEAVY MINERALS AS COMPARED TO OTHER "HEAVIES" OF THE GULF COAST AND SOUTH ATLANTIC COAST.

BIBL J. MISS. ACAD. SCI. 8:102-103.

KEYWORD: sediment, coastal water, geology, resource, heavy metal

ABSTRACT: Not available.

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ACC 163; TYPE ; YEAR 1982
PRISTAS, P.J.;
BIG GAME FISHING IN THE NORTHERN GULF OF MEXICO DURING 1981.

BIBL NOAA TECH. MEM. NO. NMFS-SEFC-90. 34 PP.

KEYWORD: billfish, biology, continental shelf, fishery, fishery statistics, recreation, distribution, socioeconomic, recreational fishery

ABSTRACT: Big game fishing for oceanic pelagic fishes (i.e., marlins, sailfish, swordfish, tunas, etc.) was a relatively infrequent event in the northern Gulf of Mexico prior to the mid-1950's. Research by the federal government contributed to the increase in popularity of this activity. The U.S. Fish and Wildlife Service conducted exploratory longline fishing off the Louisiana coast in the mid-1950's to determine the abundance of tuna stocks. The longline catches included impressive numbers of blue marlin, Makaira nigricans, and white marlin, Tetrapterus albidus, which intensified the interest in recreational big game fishing. This new recreational fishery continued to expand throughout the northern Gulf Coast area in the 1960's and 1970's. In the late 1960's, the federal government began preliminary investigations from their Panama City, Florida laboratory to gather information about this oceanic pelagic fishery resource in the northern Gulf. In 1970-71, the National Marine Fisheries Service (NMFS) began a study of the distribution, abundance, biology, and ecology of billfishes (i.e.,marlins and sailfish, Istiophorus platypterus). In 1972, responsibility for this study was transferred to the Miami Laboratory, Southeast Fisheries Center (SEFC). In 1977, responsibility for data collection was assigned to the Fishery Surveys Task of the SEFC's Office of Technical and Information Management Services. The best (i. e., cost per data unit) means of data collection was determined to be a public-contract survey. Since 1970, port samplers have interviewed big game fishing participants to obtain data concerning catch and effort (i.e., hours..

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ACC 164; TYPE ; YEAR 1981
PRISTAS, P.J.;
BIG GAME FISHING IN THE NORTHERN GULF OF MEXICO DURING 1980.

BIBL NOAA TECHNICAL MEMORANDUM NUMBER NMFS-SEFC-77. 34 P.

KEYWORD: billfish, biology, continental shelf, fishery, fishery statistics, recreation, socioeconomic, recreational fishery, distribution

ABSTRACT: In 1970, the Panama City Laboratory of the National Marine Fisheries Service (NMFS) began a study on big game fishes (blue marlin, Makaira nigricans; white marlin, Tetrapterus albidus, and sailfish, Istiophorus platypterus) in the northern Gulf of Mexico. This study subsequently became part of the Southern Fisheries Center's Oceanic Pelagics Program, the statistics for which are collected by the Fishery Survey Task of the Office of Technical and Information Management Services. Data have been collected through the cooperation of recreational fishermen who wished to learn more about big game fishes. This annual report, the tenth, is furnished to: (1) answer general questions such as: where was the best fishing? what was the best bait? how was the fishing season? etc.; and (2) provide scientific data about the distribution, abundance, and biology of marlins and sailfish in the Gulf of Mexico.

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ACC 667; TYPE ; YEAR 1977
PRISTAS, P.J.;
BIG GAME FISHING IN THE NORTHERN GULF OF MEXICO DURING 1976, WITH A BRIEF SUMMARIZATION FOR THE YEARS 1971-1976.

BIBL NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST FISHERIES CENTER, PANAMA CITY, FL. 7 PP.

KEYWORD: fishery, fishery statistics, continental shelf, recreation, socioeconomic, recreational fishery

ABSTRACT: Not available.

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ACC 306; TYPE ; YEAR 1975
PYLE, T.E.; HENRY, V.J.; MCCARTHY, J.C.; GILES, R.T.; NEURAUTER, T.W.;
BASELINE MONITORING STUDIES, MISSISSIPPI, ALABAMA, FLORIDA, OUTER CONTINENTAL SHELF, 1975-1976. VOLUME 5. GEOPHYSICAL INVESTIGATIONS FOR BIOLITHOLOGIC MAPPING OF THE MAFLA-OCS LEASE AREA.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/ST-78/34. 267 PP.

KEYWORD: bathymetry, carbonate, geologic structure, geology, lithology, continental shelf, reef, sediment, MAFLA

ABSTRACT: A multi-sensor geophysical survey including over 3700 km of high resolution geophysical profiles was completed on the Outer Continental Shelf areas from 26 degrees N latitude to south of Horn

Island, Mississippi. On the basis of data collected, the Mississippi, Alabama, Florida (MAFLA) continental shelf area was divided into five major zones on the basis of rock outcrop distribution and dominant sediment texture (i.e., fine, medium, coarse) and into a number of subzones on the basis of textural variability or patchiness. A review is also provided on the bathymetry and shallow structure of the region as well as a summarization of new results of seismic reflection studies on the west-central Florida shelf.

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ACC 4122; TYPE P; YEAR 1975
QUICK,J.A., JR.; HENDERSON, G.E.;
EVIDENCE OF NEW ICHTHYOINTOXICATIVE PHENOMENA IN GYMNOIDIUM BREVE RED TIDES. IN: V.R. LOCICERO, ED. PROC. FIRST INTL. CONF. ON TOXIC DINOFLAGELLATE BLOOMS, NOVEMBER 1974, BOSTON, MASSACHUSETTS.

BIBL. MASS. SCI. AND TECH. FOUNDATION, WAKEFIELD, MA.

KEYWORD: biology, phytoplankton, red tide, fish, coastal, pathology, stress

ABSTRACT: A red tide caused by the toxic dinoflagellae Gymnodinium breve Davis occurred intermittently along the west coast of peninsular Florida from October 1973 through June 1974. Distress behavior of fishes in the red tide area was observed and 129 severely distressed or freshly dead specimens were collected and subjected to immediate necroptic examination. The 16 consistently observed pathologies suggest that many fishes die in red tides from chronic tissue damage rather than by previously recognized neurointoxication. Some species seem to succumb to neurointoxication under the same conditions that produce lethal hemopathy and histopathology in others. The observed sign complexes are indicative of dehydration, hemolysis, and interference in the blood clotting mechanisms.

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ACC 142; TYPE ; YEAR 1982
RACAL-DECCA SURVEY, INC.;
A PRE-DRILLING SITE SPECIFIC BENTHIC SURVEY WITHIN STATE OF ALABAMA LEASE TRACT 115 FOR EXXON COMPANY, U.S.A.

BIBL RACAL-DECCA SURVEY, INC., HOUSTON, TX. 51 PP.

KEYWORD: biology, continental shelf, benthic community, infauna, epibiota, fish, remote sensing

ABSTRACT: The objectives of this present study were to qualitatively and quantitatively document the distribution of the benthic epibiota, benthic infauna and fishes in the vicinity (300 m) of the proposed drill site within the State of Alabama Lease Tract 115. The intent of this study is to provide a physical and biological description of the proposed surface location and to document whether any unique or significant biological assemblages are present.

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ACC 328; TYPE ; YEAR 1971
RAMSEY, R.C.;
MARINE RESOURCES SPECTROMETER EXPERIMENT.

BIBL TRW SYSTEMS GROUP, REDONDA BEACH, CA. 85 PP.

KEYWORD: biology, fishery, remote sensing, resource

ABSTRACT: Not available.

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ACC 2459; TYPE P; YEAR 1964
RANDALL, J.E.; SCHROEDER, R.E.; STARCK, W.A.;

NOTES ON THE BIOLOGY OF THE ECHINOID DIADEMA ANTILLARUM.

BIBL CARIB. J. SCI. 4(2&3):421-433.

KEYWORD: Monroe, habitat, abundance, growth, spawning, coral, seagrass, echinodermata

ABSTRACT: Studies on the chinoid, Diadema antillarum, in the Florida Keys and Virgin Islands yielded information on the habitats, abundance, growth, spawning and predators of the echinoid. Habitats of D. antillarum included rock, coral reef, mangrove roots, seagrass beds, and sand. Abundance of the echinoid averaged 1-2 individuals per sq. meter in Thalassia beds in the Florida Keys and 13.4 per sq. meter on a rocky shore in the Virgin Islands. Monthly growth rates of caged specimens in the Virgin Islands are given. Thalassia was found to be the primary food source of echinoids in the Florida Keys. Spawning behavior and periodicity of Virgin Islands echinoids are discussed. Predators of D. antillarum are listed.

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ACC 846; TYPE ; YEAR 1974
RANKIN, J.G.;
CHEMICAL AND PHYSICAL CHARACTERISTICS OF DISSOLVED ORGANIC MATTER ISOLATED FROM THE MISSISSIPPI RIVER DELTA AND GULF OF MEXICO.

BIBL PH.D. DISSERTATION. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 125 PP.

KEYWORD: carbohydrate, dissolved oxygen, fatty acid, hydrocarbon, protein, salinity, silicate, water temperature, depth

ABSTRACT: Samples of dissolved organic matter were collected from 2 sites in the Mississippi River delta between February and October, 1971 during cruises 71-A-3 and 71-A-12 of the R/V Alaminos. Data collected

concern silicate, carbohydrate, protein, fatty acid, methanol and acetone levels. Observations were made on depth, salinity, dissolved oxygen and temperature. Methods of isolation and extraction and references to previous worldwide investigations into chemical analyses between 1969 and 1973 are included.

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ACC 2192; TYPE P; YEAR 1976
REED, T.L.;
HEAVY METAL CONCENTRATIONS IN THE SEDIMENTS OF A PORTION OF THE EAST FLORIDA CONTINENTAL SHELF.

BIBL MASTER'S THESIS. FLORIDA INSTITUTE, MELBOURNE, FL.

KEYWORD: heavy metal, geochemical, sediment, grain size, polychaete, crustacean, echinoderm, coelenterate, calico scallop

ABSTRACT: A discussion of the heavy metal geochemical aspects of the sediments of a portion of the east Florida continental shelf is presented. Baseline concentrations of six environmentally active heavy metals were established. A clear relationship between grain size distribution of sediments and heavy metal concentrations was not seen. An inverse correlation was seen between trace metals and quartz content of the sediments. Such an inverse correlation was also noted for lead and zinc in quartz rich sediment. Included in the benthic biota were polychaetes, crustaceans (mostly barnacles and crabs), echinoderms (sea stars, sea cucumbers and sand dollars), slipper shells (Crepidula spp.), chitons and some bryozoans and coelenterates (anemones). Calico scallop shells were very common, but living individuals were present only on the outer continental shelf. Vegetation cover was mostly lacking.

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ACC 4123; TYPE P; YEAR 1967
REHRER, R.; JONES, A.C.; ROESSLER, M.A.
BOTTOM WATER DRIFT ON THE TORTUGAS GROUNDS.

BIBL BULL. MAR. SCI. 17(3):563-575.

KEYWORD: circulation, currents, recruitment, spawning area, migration, , pink shrimp, commercial fishery

ABSTRACT: The pink shrimp, Penaeus duorarum, spawns on the Tortugas fishing grounds. The planktonic larvae are for the most part subject to passive transport with the prevailing currents. The juvenile stages occur in the Everglades nursery area. Previous work indicated that the currents in the upper waters flow in a westerly direction away from the nursery ground. To determine whether shrimp could be transported by bottom currents to the Everglades nursery area, a sea-bed drifter program was established. Five hundred and ninety Woodhead sea-bed drifters (U.S. version) were released on and near the Tortugas shrimp fishing grounds in February, March and October 1964. Analysis of the recovery data indicates a general southwestward bottom drift of at least 0.4 nautical mile per day across the grounds. Variation in the direction of drifter movement in the western section suggests greater meandering in this region than in the eastern section. We conclude that pink shrimp cannot be transported eastward across the Tortugas grounds to the nursery area by bottom currents. A likely alternative route is through Rebecca Channel, along the western margin of the Florida Current, and through the Florida Keys to Florida Bay and the Everglades nursery area.

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ACC 2033; TYPE P; YEAR 1969
REINSHMIDT, D.C.;
REGENERATION IN THE SEA CUCUMBER THYONELLA GENMATA (POURTALES).

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: stress, dissolved oxygen, temperature, echinodermata, ammonia, reproduction

ABSTRACT: Results indicate that Thyonella gennata has several interesting regeneration abilities. First, evisceration does not occur under low oxygen, high temperature, or high ammonia stresses, but if removed manually, the viscera will be regenerated. As little as 5% of the posterior end, or 70% of the anterior end are required for regeneration of a complete animal. Anterior tip removal allows wound healing and regeneration in segments as small as 12.5%. Gonads can regenerate from nonreproductive tissue. The reproductive system regenerates last and seems to be enhanced by abundance of food supply.

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ACC 4172; TYPE P; YEAR 1976
RELINI, G.; GERACI, S.; MONTANARI, M.; ROMAAIRONE, V.;
SEASONAL VARIATION IN FOULING OF THE OFFSHORE DRILLING PLATFORMS NEAR RAVENNA AND CROTONE ITALY.

BIBL BOLL. PESCA PISCIC IDROBIOL. 31(1-2):227-256.

KEYWORD: offshore drilling, fouling, , depth, seasonal, development, physiology, pathology, mollusca, annelida, crustacea

ABSTRACT: The settlement of fouling organisms on non-toxic substrates, immersed under CH4 extraction platforms off Ravenna and Crotone, were studied over 1 yr and at different depths. Seasonal variation and the development and amount of fouling was investigated. At

Ravenna panels were immersed at depths of 0, 5 and 11 m and 6 km from the shore, while at the 2nd site, they were submerged at depths of 0, 9, 20 and 18 km offshore. At Crotone panels were exposed at 0, 14, 20 and 65 m and 6 km from the shore. At Ravenna, where the waters are very eutrophic, the main fouling organism was Mytilus galloprovincialis, which was dominant on panels exposed for 3-6 mo., to a depth of 10 m. The final community is characterized by mussels which attain a weight of 12 kg/panel (100 kg/m2). At depths greater than 10 m and after 1 yr exposure, the most common species were Tubularia mesembryanthemum, Balanus improvisus and Pomatoceros triqueter along with mussels. At Crotone where the water is clear and nutrients are limited, fouling was ndt as heavy as at Ravenna, especially on 1 and 3 mo. panels. At Ravenna the heaviest settlement of fouling organisms occurred during the summer (up to 25 g/dm2), while at Crotone maximum settlement occurred in the autumn and spring, the wet weight of fouling not exceeding 2.9 g/dm2. Mussels were dominant at Crotone after 1 yr exposure of the panels near the surface, while the bivalve Picnodonta cochlear was the main organism at 65 m depth. At 14 and 20 m in the panels were chiefly settled by Salmacina dysteri with bryozoans (Microporella ciliata, Savignyella lagfontii, Callopora dumerili) and bivalves (Saxic...

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ACC 996; TYPE ; YEAR 1982
RESTREPO AND ASSOCIATES;
IXTOC I OIL SPILL ECONOMIC IMPACT STUDY - EXECUTIVE SUMMARY.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. 16 PP.

KEYWORD: oil spill, oil, commercial fishery, pollution, recreation, recreational beach, socioeconomic

ABSTRACT: This is an executive summary of the assessment of the economic impacts of the 1979 IXTOC I oil spill to the south Texas coastal economy. Economic impacts include those related to tourism, recreation, commercial fishing, and cleanup costs. Over $6 million were lost by the tourism and recreation industries, while no significant impact was documented to commercial fisheries.

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ACC 621; TYPE ; YEAR 1983
REZAK, R.; BRIGHT, T.J.; MCGRAIL, D.W.;
REEFS AND BANKS OF THE NORTHWESTERN GULF OF MEXICO: THEIR GEOLOGICAL, BIOLOGICAL, AND PHYSICAL DYNAMICS.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 501 PP. (ALSO DEPARTMENT OF OCEANOGRAPHY, TEXAS A&M UNIVERSITY, COLLEGE STN, TX.

KEYWORD: biology, continental shelf, continental slope, geology, oceanography, physical process, sedimentology, reef, live bottom

ABSTRACT: The purpose of this report is to provide synthesis of scientific information regarding the geology, biology and physical oceanography of the Texas-Louisiana Outer Continental Shelf, especially scientific knowledge and data related to the topographic features extending above the seafloor. A considerable portion of the data collected on the shelf is the result of a series of studies funded by the Bureau of Land Management (BLM; now Minerals Management Service, MMS) and conducted principally by investigators at Texas A&M University. This report relies primarily on data generated during these investigations, which started in 1974. However, it also incorporates the scientific literature generated by other studies before and during these BLM-sponsored investigations. This chapter documents the early work which described topographic features of the Texas-Louisiana Shelf, describes the structure of this report, and summarizes the chief conclusions.

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ACC 4124; TYPE P; YEAR 1972
REZAK, R.; EDWARDS, G.S.;
CARBONATE SEDIMENTS OF THE GULF OF MEXICO.

IN: CONTRIBUTIONS ON THE GEOLOGICAL OCEANOGRAPHY OF THE GULF OF MEXICO.

BIBL TEXAS A&M UNIV. OCEANOGRAPHIC STUDIES V, VOL. 3. GULF PUBLISHING CO., HOUSTON, TX.

KEYWORD: sediment, carbonate, continental shelf, geology, reef, coral, biology, distribution

ABSTRACT: The carbonate deposits of the Gulf of Mexico may be grouped into four general categories: 1) carbonate shelves, 2) coral-algal reefs, 3) lagoonal carbonate and evaporite muds and 4) deep-water carbonates. The West Florida Shelf and the Yucatan Shelf are examples of open, inclined shelves on which sediments of biogenic and nonbiogenic carbonates are accumulating. The distribution patterns of these sediments are a large degree relict Pleistocene and Holocene patterns. Coral-algal reefs occur on both carbonate and terrigenous shelves in the Gulf of Mexico. Reefs such as the Flower Gardens in the northwestern Gulf occur on prominences near the shelf edge. They differ from the emergent reefs in the southern Gulf in that they do not rise to levels shallower than 60 ft and are populated by the Diploria-Montastrea-Porites community. This is equivalent to Logan's submerged reefbank stage of development in his Reef Model 1. Lagoonal carbonates, including evaporite muds, occur in several areas of the southern and western Gulf. Laguna Madre, along the south Texas coast, typifies a terrigenous lagoonal environment that contains deposits of skeletal carbonates, oolites and nonbiogenic carbonates along with the evaporite minerals salts and gypsum. Deep-water carbonates are primarily pelagic oozes consisting of globigerinids, coccolithophorids and pteropods. Deep-water coral "reefs" have been reported on the lower continental shelf slope of the northern Gulf.

Carbonate turbidites form an important part of the sediment column in the abyssal plain.

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ACC 4277; TYPE P; YEAR 1981
REZAK, R.; BRIGHT, T.J.;
NORTHERN GULF OF MEXICO TOPOGRAPHIC FEATURES STUDY: EXECUTIVE SUMMARY. FINAL REPORT 1978.

BIBL DEPARTMENT OF OCEANOGRAPHY, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX.

KEYWORD: topographic, geological, chemical, physical, geophysical, biologic

ABSTRACT: The main purpose of the study was to gather data in order to characterize selected topographic features in the Gulf of Mexico. Geological, chemical, physical, geophysical, and biological oceanographic data were collected from the Florida Middle Ground, off the west Florida coast, and from twelve topographic features off the Louisiana-Texas coast.

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ACC 4307; TYPE P; YEAR 1981
REZAK, R.; BRIGHT, T.J.;
NORTHERN GULF OF MEXICO TOPOGRAPHIC FEATURES STUDY. VOL. 2: METHODS, FOSSIL COCCOLITHS, CHEMICAL ANALYSES.

BIBL FINAL REPT. BUREAU OF LAND MANAGEMENT NO. TR-81-2.T; BLM-YM-P/T-81-008-3331 162 P.

KEYWORD: topographic, sediment, trace metal, hydrocarbon, organic carbon

ABSTRACT: This study characterized selected topographic features in descriptive reconnaissance studies were completed in 1978-79 for the Florida Middle Ground and Alderdice, Coffee Lump, Diaphus, Elvers, Fishnet, Geyer, Jakkula, and Rezak-Sidner Banks. Chemical analysis of sediments for trace metals, high molecular weight hydrocarbons, Delta C-13, and total organic carbon was conducted for Coffee Lump and the East and West Flower Garden Banks. The study of the distribution of reworked fossil coccoliths on the South Texas Outer Continental Shelf was continued.

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ACC 2271; TYPE P; YEAR 1980
RICE, S.A.; SIMON, J.L.;
INTRASPECIFIC VARIATION IN THE POLLUTION INDICATOR POLYCHAETE POLYDORA LIGNI (SPIONIDAE).

BIBL OPHELIA 19(1):79-115.

KEYWORD: pollution, polychaete, morphology, biology, reproduction, temperature, salinity, dissolved oxygen

ABSTRACT: The extent of intraspecific variation in the pollution indicator Polydora ligni was assessed on evidence from morphology, reproductive biology, physiological response, and population genetics. Five populations from Florida were compared morphologically and genetically; three of them were also analyzed for differences in reproduction and physiological response; morphological differences were observed between populations with respect to the setae of the fifth setiger and the presence of the nuchal antenna, both important taxonomic characteristics. Significant differences were observed in gametic distribution in mature individuals, egg size, and spermatophore morphology. Interpopulation crosses suggested the possibility of incipient reproductive isolation between some of the populations. Physiological responses, expressed as survival and growth rate, were compared between populations using a central composite factorial design experiment consisting of three levels each of temperature, salinity and dissolved oxygen. Experimental results were analyzed using response surface methodology and revealed highly significant differences in both five-day survival and growth rates between populations. Gene frequencies were determined by use of horizontal starch gel electrophoresis. Standard genetic distance, based upon ten loci, was not significantly different between most populations. However, one population varied from all others at a level corresponding to sibling species. For all populations pooled, 90% of all loci were polymorphic. The study concluded that this cosmopolitan pollution indicator has undergone considerable dive...

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ACC 2287; TYPE P; YEAR 1981
RICE, S.A.; PATTON, G.W.; MAHADEVAN, S.
AN ECOLOGICAL STUDY OF THE EFFECTS OF OFFSHORE DREDGED MATERIAL DISPOSAL WITH SPECIAL REFERENCE TO HARD-BOTTOM HABITATS IN THE EASTERN GULF OF MEXICO.

BIBL REPT. SUBMITTED BY MOTE MARINE LABORATORY, SARASOTA, FLORIDA TO MANATEE COUNTY CHAMBER OF COMMERCE, BRADENTON, FL. 45 P.

KEYWORD: sediment, chemistry, grain size, sponge, live bottom, drilling mud, stress

ABSTRACT: Data was collected to assess the ecological effect of offshore disposal of fine sediments. Diver observations (including photography) and sediment chemistry and grain size analysis data were utilized to discern ecological effects. The study concluded that the disposal operations had imparted a heleterious effect on the hard-bottom communities of the study area.

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ACC 2460; TYPE P; YEAR 1970
RICE, M.E.;
SURVEY OF THE SIPUNCULA OF THE CORAL AND BEACH ROCK COMMUNITIES OF THE CARIBBEAN SEA.

BIBL PROC. INT. SYMP. BIOL. SIPUNCULA ECHIURA, P. 35-49.

KEYWORD: Monroe, coral, biology, macrofauna

ABSTRACT: Additional information on the distributional patterns of 11 rock dwelling species and a review of the available information on several aspects of their biology, including their rock boring activities was presented. Sipunculans inhabiting beach rock and coralline limestone were collected. The habitats of the 11 most abundant species were described, listed, and relative abundance and distribution of each species reviewed. Some general observations were reported on the biology of the most common species, including feeding patterns and possible mechanisms for formation of the burrows.

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ACC 2524; TYPE P; YEAR 1978
RICE, K.J.;
STRUCTURE AND FUNCTION OF A TROPICAL, SUBTIDAL SANDBAR COMMUNITY.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI, MIAMI, FL.

KEYWORD: Dade, community, biomass, seasonality, polychaete, chlorophyll, invertebrate

ABSTRACT: The benthos of a sandbar off Miami was studied from October 1976 to September 1977. Abundances and biomass varied seasonally and spatially. Macrofauna diversity variation was correlated with the abundance of Tivela floridana. Bivalve seasonal variations in abundance were much greater than the polychaetes. Other investigations included studies of survivorship, respiration, standing stock of chlorophyll 'a', and the effect of carbonate particles on sediment porosity and permeability. The sandbar exhibited characteristics hypothesized to exist within a physically controlled or immature ecosystem.

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ACC 2461; TYPE P; YEAR 1983
RICH, E.R.; GREENFIELD, L.J.;
COMPARISON OF BENTHIC COMMUNITIES IN KEY LARGO WATERWAYS.

BIBL PRESENTED AT BENTHIC ECOLOGY MEETING, FLORIDA INSTITUTE OF TECHNOLOGY, MELBOURNE, FL.

KEYWORD: Monroe, benthic, community, development, seasonality

ABSTRACT: The benthic communities of 5 artificial basins (3 cut from limestone and 2 cut from mangrove peat) in upper Key Largo, Florida were studied for up to 8 years. Abiotic parameters of the water column and associated terrestrial environment were monitored and related to variations in benthic fauna and flora. Patterns of community development varied with substrate type. Initial colonization was rapid with first algal production occurring within 6 weeks. Seasonality of macrophytes was evident within the first year. Given adequate exchange with ambient waters, benthic communities approached maturity with the establishment of seagrass within 3 years.

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ACC 711; TYPE ; YEAR 1984
RICHARDS, W.J.; POTTHOFF, T.; KELLEY, S.; MCGOWAN, M.F.; ET AL.;
SEAMAP 1982--ICHTHYOPLANKTON LARVAL DISTRIBUTION AND ABUNDANCE OF ENGRAULIDAE, CARANGIDAE, CLUPEIDAE, LUTJANIDAE, SERRANIDAE, CORPHAENIDAE, ISTIOPHORIDAE, XIPHIIDAE, AND SCOMBRIDAE IN THE GULF OF MEXICO.

BIBL NOAA TECH. MEM. NMFS-SEFC-144. 55 PP.

KEYWORD: biology, fish larvae, plankton, ichthyoplankton, distribution, species composition, abundance, snapper

ABSTRACT: Not available.

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ACC 4125; TYPE P; YEAR 1979
RICHARDS, W.J.; POTTHOFF, T.;
LARVAL DISTRIBUTIONS OF SCOMBRIDS (OTHER THAN BLUEFIN TUNA) AND SWORDFISH IN THE SPRING OF 1977 AND 1978.

BIBL ICCAT WORKING DOCUMENT SCRS/79. 6 P.

KEYWORD: biology, ichthyoplankton, pelagic fish, billfish, distribution, recruitment, neuston, larvae

ABSTRACT: Based on ichthyoplankton surveys conducted in the Gulf of Mexico in the spring of 1977 and 1978, larval distributions for the following taxa are given: Thunnus spp., Auxis spp., Katsuwonus pelamis, Euthynnus alletteratus, Thunnus atlanticus, and Xiphias gladius. K. pelamis and T. atlanticus larvae were the most abundant in these cruises which took place at the end of April and May in 1977 and in May of 1978. Both bongo nets and neuston nets were employed. Larvae were most abundant in the eastern Gulf and no Xiphias gladius larvae were taken in the western Gulf.

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ACC 4168; TYPE P; YEAR 1984
RICHARDSON, C.A.;
EFFECTS OF DRILLING CUTTINGS ON THE BEHAVIOR OF THE NORWAY LOBSTER NEPHROPS NORVEGICUS.

BIBL MAR. POLLUT. BULL 15(5):170-174.

KEYWORD: drill cutting, hydrocarbon, physiology, crustacea, pathology, behavior, pollution

ABSTRACT: Small quantities of drilling cuttings (100 g/250 cm2) affected the survival and general behavior of N. norvegicus held in experimental aquaria. In 1 experiment volatile hydrocarbons released from the cuttings caused a significant decrease ($P < 0.05$) in the beat of the exopodite on the 3rd maxilliped. Flicking rates of the antennule and the time taken to identify and capture food introduced into the tanks were unaffected by exposure to cuttings. When the water flow through the tanks was interrupted for 12 h, 58% of animals died after exposure to the highest concentration of cuttings but those at the lower concentrations survived. After the water flow was restored the remaining survivors showed disorientated behavior and uncoordinated movements which lasted for approximately 36 h. In this condition animals will be more vulnerable to predators. This unusual behavior may have serious implications for natural populations exposed to cuttings discharge in the close vicinity of offshore drilling platforms.

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ACC 2363; TYPE ; YEAR 1961
RICHEY, J.M.;
THE SEDIMENTARY ENVIRONMENTS OF THE BEACH, SWAMP, AND SHOALS OF CAPE ROMANO, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL.

KEYWORD: Collier, distribution, sediment, topography, grain size

ABSTRACT: Trends in the distribution of sediment types near Cape Romano, Florida, were determined from 130 sediment samples collected during June 1960. The sediment types identified were quartz sand, carbonate shell material, and silt/clay. Relationships between local topography and sediment characteristics were described and 3 sources of sediment supply were identified.

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ACC 725; TYPE ; YEAR 1967
RILEY, G.A.;
THE PLANKTON OF ESTUARIES. P. 316-326.

IN: G.H. LAUFF, ED. ESTUARIES.

BIBL AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, PUBLICATION NO. 83, WASHINGTON, D.C.

KEYWORD: biology, coastal water, currents, estuary, nutrient, plankton, salinity, temperature, zooplankton

ABSTRACT: Not available.

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ACC 2462; TYPE P; YEAR 1972
RIO PALENQUE, INC.;
BIOLOGICAL STUDY OF THE WATERS OF THE KEY HAVEN DEVELOPMENT.

BIBL PREPARED FOR KEY HAVEN ASSOCIATED ENTERPRISES, INC.

KEYWORD: Monroe, seagrass, baseline study, circulation, productivity, flora, fauna

ABSTRACT: Baseline information on the existing situation in and around the Key Haven development was collected. The existing canal bottoms were determined to be highly productive, despite the fact that they were dead-ended and the circulation was limited to tidal ebb and flow and to wind induced water movement. The shallow open area was less productive than the canals; however, the bands of rocky substratum occupied by Sargassum and the sediment filled depression which support Thalassia were relatively productive. In general, the shallow shelf area was more productive than the slightly deeper waters to the north and to the east of the Key Haven property. Floral and faunal species lists were presented.

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ACC 668; TYPE ; YEAR 1973
RIVAS, L.R.;
BIG GAME FISHING IN THE GULF OF MEXICO DURING 1972.

BIBL NATIONAL MARINE FISHERIES SERVICE, PANAMA CITY, FL. 18 PP.

KEYWORD: fishery, fishery statistics, continental shelf, recreation, socioeconomic, fish, recreational fishery

ABSTRACT: Not available.

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ACC 2463; TYPE P; YEAR 1979
ROBBIN, D.M.; STIPP, J.J.;
DEPOSITIONAL RATE OF LAMINATED SOILSTONE CRUSTS, FLORIDA KEYS.

BIBL J. OF SED. PETRO. 49(1):0175-0180.

KEYWORD: Monroe, carbonate, sediment, geologic history, geology

ABSTRACT: Laminated calcium carbonate crust "calcrete" from Key Largo, Florida was sampled and 5 layers of laminate identified. The layers were radiocarbon dated and ranged from 5680 years B.P. at the bottom to 400 years B.P. at the top. The data indicate the crust developed in the last 5,000-6000 years. Samples from Big Pine Key produced similar results.

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ACC 721; TYPE ; YEAR 1977
ROBERTS, T.W.;
AN ANALYSIS OF DEEP-SEA BENTHIC COMMUNITIES IN THE NORTHEAST GULF OF MEXICO

BIBL PH.D. DISSERTATION, TEXAS A&M UNIVERSITY, COLLEGE STATION, TX.

KEYWORD: benthic community, biology

ABSTRACT: Not available.

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ACC 2171; TYPE P; YEAR 1982
ROBERTS, H.H., ROUSE, L.J., JR.; WALKER, N.D.; HUDSON, J.H.;
COLD WATER STRESS IN FLORIDA BAY AND NORTHERN BAHAMAS: A PRODUCT OF WINTER COLD-AIR OUTBREAKS.

BIBL J. SEDIMENT. PETROL. 52(1):145-155.

KEYWORD: stress, temperature, meteorological, coral, bathymetry, development, wind speed, remote sensing, depth, mortality, fish, reef

ABSTRACT: In situ water temperatures, meteorological data, and thermal infrared data from the NOAA-5 meteorological satellite were used to study the thermal evolution of Florida Bay and Bahama Bank waters during January 1977 when 3 consecutive cold fronts crossed south Florida and the northern Bahamas, reducing shallow water temperatures below the lethal limit for most reef corals. Florida Bay water was depressed below 16 degrees Celsius, a thermal stress threshold for most reef corals, for 8 days. Minimum in situ temperature recorded was 12.6 degrees Celsius. Bathymetry controlled routes of cold water masses are described and their effort noted. Coral and fish kills were recorded along the Florida Reef Tract and northern Bahamas, with up to 91% mortality at Dry Tortugas. This provides evidence that cold water strass conditions can exist over vast shallow water areas for periods of days, resulting in restriction of reef community development throughout the study area.

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ACC 2464; TYPE P; YEAR 1977
ROBERTS, H.H.; WHELAN, T.; SMITH, W.G.;
HOLOCENE SEDIMENTATION AT CAPE SABLE, SOUTH FLORIDA.

BIBL SED. GEOL. 18:25-60.

KEYWORD: Monroe, carbonate, sediment, Holocene, geologic, history, mollusc, seagrass

ABSTRACT: A variety of sedimentary environments at Cape Sable were investigated to determine depositional history and compare the seven types of environments. Radiocarbon dating shows three different dates for the formation of the three capes existing at this time. Cores reveal a carbonate-mud sequence similar to present subtidal sediments. Results of analysis indicate a typical marine carbonate-mineral suite, with numerous molluscs and Thalassia roots.

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ACC 2465; TYPE P; YEAR 1963
ROBERTSON, P.B.;
A SURVEY OF THE MARINE ROCK-BORING FAUNA OF SOUTHEAST FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL.

KEYWORD: Monroe, sponge, reef, erosion

ABSTRACT: The rock boring fauna as a whole was determined to be typical of the West Indian faunal province and was comparable to that of other tropical regions. The boring sponge Cliona truitti was recorded for the first time from southeast Florida. It was extremely common in the intertidal zone. Cliona caribboea was shown to be the dominant boring sponge in the back reef environment. The sipunculid genus Lithacrosiphon represented by a single species, 4 species of the genus Aspidosiphon, and Phascolosoma dentigerum were recorded for the first time from Florida waters. The contribution of boring animals to the erosion of intertidal rock was determined to be slightly above the mid-tide level, but considerable in a zone

extending for several centimeters above mean low water. Erosion by organisms appeared to be intense on the reef patches. Boring lamellibranchs were not prominent in the intertidal zone, but they were the most conspicuous boring animals in the back reef environment. The burrows of the gastrochaenids reported in this paper were distinctive and may easily be identified as to the species which formed them. The boring mechanisms of the majority of rock boring animals have yet to be clearly demonstrated.

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ACC 430; TYPE ; YEAR 1983
ROBINETTE, H.R.;
SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (GULF OF MEXICO). BAY ANCHOVY AND STRIPED ANCHOVY

BIBL U.S. FISH AND WILDLIFE SERVICES, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D..C. FWS-OBS-82-11.14. 15 PP.

KEYWORD: biology, commercial fishery, ecology, fishery, life history, socioeconomic, fish

ABSTRACT: Not available.

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ACC 2466; TYPE P; YEAR 1963
ROBINSON, R.K.; DIMITRIOU, D.E.;
THE STATUS OF THE FLORIDA SPINY LOBSTER FISHERY, 1962-1963.

BIBL FLA. ST. BD. CONSERV. MAR. LAB TECH. SER. NO. 42, 30 P.

KEYWORD: Monroe, spiny lobster, spawning, larvae, plankton, fishery, stress

ABSTRACT: A reported decline in the landings of Florida spiny lobsters was investigated. Additionally, the occurrence of phyllosoma larvae from plankton samples collected in Florida Bay and on the Tortugas fishing grounds was noted. It was concluded that the lobster stocks of south Florida were not depleted in the biological sense. It was suggested that the decline in catch per unit effort was a reflection of increasing fishing pressure upon relatively stable stocks. It was observed that some spawning occurred throughout the year. Less than 7 percent of the lobster larvae were identified as Panulirus.

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ACC 4173; TYPE P; YEAR 1980
ROBINSON, W.E.; WEHLING, W.E.; MORSE, M.P.;
TURBIDITY EFFECTS ON PLACOPECTEN MAGELLANICUS GILL MORPHOLOGY.

BIBL AM. ZOOL. 20(4):892.

KEYWORD: turbidity, morphology, offshore drilling, oil, physiology, pathology, mollusca, suspended, sediment, drill cutting, drilling mud

ABSTRACT: Not available.

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ACC 2172; TYPE P; YEAR 1971
ROESSLER, M.A.; REHRER, R.G.;
RELATION OF CATCHES OF POSTLARVAL PINK SHRIMP IN EVERGLADES NATIONAL PARK, FLORIDA, TO THE COMMERCIAL CATCHES ON THE TORTUGAS GROUNDS.

BIBL BULL. MAR. SCI. 21(4) (IN PRESS).

KEYWORD: pink shrimp, population, . tide, temperature, salinity, currents, abundance

ABSTRACT: Sampling of postlarval pink shrimp populations at Buttonwood Canal and Little Shark River, Everglades National Park, Florida was undertaken from July 1965 to December 1967. Environmental effects on postlarval catches were observed and the catches of immigrating Penaeus were compared with commercial catches of Penaeus on the Tortugas grounds. Postlarval Penaeus were more plentiful at night, during flood tides, in bottom samples, during new and first quarter lunar periods and during the summer. An index of abundance was chosen at the Everglades station with which it was possible to predict 61% of the monthly variation in commercial Tortugas catches.

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ACC 2525; TYPE P; YEAR 1975
ROESSLER, M.A.; BEARDSLEY, G.L.; REHRER, R.; GARCIA, R.;
EFFECTS OF THERMAL EFFLUENTS ON THE FISHES AND BENTHIC INVERTEBRATES OF BISCAYNE BAY, CARD SOUND, FLORIDA.

BIBL UNIV. MIAMI ROSENTIAL SCHOOL OF MAR. ATMOS. SCI. UM-RSMAS NO. 75027

KEYWORD: Dade, fish, benthic, invertebrate, temperature, community, stress, salinity, DO, echinoderm

ABSTRACT: Maximum summer temperatures of 32 degrees C were found to cause harmful chanets in the environment which are reversible in the winter, while temperatures above 33 degrees C caused damage which did not recover during the cooler months. Intermittent flow of discharge water was not as damaging as constant flow. Card Sound was occupied by a sponge-brittle star community but many organisms were common to both the Sound and Biscayne Bay. The discharge into Card Sound lasted about one year and temperatures in excess of 33 degrees C were uncommon. Only a few indicator species showed stress and higher abundance of others offset their decrease. Generally no lasting damage occurred in Card Sound.

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ACC 381; TYPE ; YEAR 1977
ROGERS, R.M.;
TROPHIC INTERRELATIONSHIPS OF SELECTED FISHES ON THE CONTINENTAL SHELF OF THE NORTHERN GULF OF MEXICO.

BIBL PH.D. DISSERTATION. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 244 PP.

KEYWORD: biology, feeding habit, fish, geology, demersal fish, life history, distribution, fish larvae, zooplankton, predation

ABSTRACT: The present study surveys the trophic interrelationships of 26 demersal fishes inhabiting the continental shelf of the northern Gulf of Mexico. Volumetric stomach content analyses were carried our on 4,550 specimens. Fishes were collected at 128 stations between Brownsville, Texas and St. Andrew's Bay, Florida in depths of approximately 3 to 200 meters. Within each species, fish were grouped by size, depth, and geographical location in order to compare variations in food habits due to these factors. Food habits of the individual species are discussed emphasizing trends in diet by food categories, transitions associated with growth, and variations associated with geographical location. Feeding periodicity is discussed for those species where data were available. From this detailed information, trends in the life history and food habits of continental shelf fishes are proposed. Larger individuals of a species are indicated to spawn in deeper waters. Larval and juvenile fishes subsequently enter the water column, especially the supra-benthic zone, where they undergo a planktonic stage as they are transported by currents toward shallower waters. They eventually settle to the bottom to lead a demersal existence gradually moving offshore to complete the life cycle. This trend in life history pattern is reflected in the ontogenetic food habit transitions. Larvae and juveniles feed largely on zooplankton. The importance of zooplankton decreases with ontogenetic development except in certain planktivorous species. As the importance of zooplankton decreases, benthic organisms increase in importance. . . . nkton including larvae and juveniles of higher consumers is eaten largely by small fishes and planktivorous adults. Eggs and larvae of many demersal fishes leave the benthic zone assuming a planktonic existence and escaping predation from this lower zone. Organic detritus enters the benthic food chain largely through assimilation by micro-bottom animals and benthic consumers as well as browsers from the water column. Larger macrocrustaceans and macromobile organisms readily utilize these benthic and pelagic browsers. Trophic energy is lost from the benthic zone to larger pelagic fishes acting as top predators.

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ACC 2526; TYPE P; YEAR 1977
RONA, D.C.;
REMOTE SENSING OF TURBIDITY IN BISCAYNE BAY, FLORIDA.

BIBL FLA. SCIENTIST 40(2):174-178.

KEYWORD: Dade, remote sensing, turbidity, Landsat, suspended, sediment

ABSTRACT: This report describes the utility of the multispectral scanner (MSS) from the N.A.S.A. LANDSAT Satellite in detecting and monitoring both man-made and natural suspended sediment. MSS data were used to observe turbidity derived from dredging in Government Cut and from a carbonate bank in Biscayne Bay under variable tidal conditions. The technique employed provided repetitive synoptic data over large areas and greatly reduces the volume of "in situ" measurements required to accurately describe turbidity in a nearshore environment.

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ACC 2149; TYPE P; YEAR 1972
ROPP, R.W.; HOFF, F.H. JR.;
FLATFISHES (PLEURONECTIFORMES).

BIBL MEM. HOURGLASS CRUISES, IV(II):135.

KEYWORD: hourglass, distribution, seasonality, reproduction, habitat, behavior, zoogeography, fish

ABSTRACT: Eighteen flatfish species were collected by trawl and box dredge off southwestern Florida. Keys to the genera and species known to occur on the Florida shelf were given. The following information was presented for each species, based on Hourglass material, various museum collections and published reports: a list of recent literature; descriptive data; geographical distribution; environmental correlatives; seasonality; diurnality; food and feeding; reproduction., size; abundance; and commercial importance. An "ecological key" illustrates those attributes allowing the 18 species (plus Trinectes maculatus) to coexist along the same shelf segment. Primary differences in species were recognizable in food and feeding, habitat, and behavior. Zoogeography of Gulf of Mexico flatfishes was examined using a modified analysis of faunal coincidence in which relative species abundance was considered. The flatfish fauna of the Gulf of Mexico (including the Florida Keys) was determined to be more closely related to the fauna of the eastern United States than to that of the Caribbean.

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ACC 2467; TYPE P; YEAR 1979
ROSENFELD, J.K.;
INTERSTITIAL WATER AND SEDIMENT CHEMISTRY OF TWO CORES FROM FLORIDA BAY.

BIBL J. SED. PETROL. 49(3):989-994.

KEYWORD: Monroe, sediment, chemistry, depth, organic carbon, nutrient

ABSTRACT: Mangrove swamp and submerged mud bank cores from Florida Bay were analyzed for differences in interstitial water and sediment chemistry characteristics. Sulfate reduction was observed in the samples. The sulfate concentration profile is atypical of other anoxic environments because sulfate concentrations increase below 20 cm, possibly as a result of a balance between the mixing of the interstitial water with overlying seawater. Also, organic decomposition rates decrease with depth. Profiles of other chemical factors are discussed.

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ACC 2468; TYPE P; YEAR 1979
ROSENFELD, J.K.;
AMINO ACID DIAGENESIS AND ADSORPTION IN NEARSHORE ANOXIC SEDIMENTS.

BIBL LIMNOL. OCEANOGR. 24(6):1014-1021.

KEYWORD: Monroe, sediment, carbonate, nutrient

ABSTRACT: Nearshore anoxic sediments were sampled in Florida Bay, Long Island Sound, and Pettaquamscutt River (Rhode Island) to examine amino acid diagenesis and free amino acid adsorption by sediments. At one water sediment depth, organic nitrogen and amino acid content were half that of surface values. Both elastic and carbonate sediments utilized equal amounts of acidic and neutral amino acids, in opposition to the preferential utilization of certain amino acids generally observed in deep-sea sediments. Laboratory adsorption experiments were used to explain preferential utilization of free amino acids in clay and carbonate sediments.

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ACC 2527; TYPE P; YEAR 1975
ROSENERG, R.;
STRESSED TROPICAL BENTHIC FAUNAL COMMUNITIES OFF MIAMI, FLOR

BIBL OPHELIA 14:93-112.

KEYWORD: Dade, stress, benthic, community, abundance, biomass, diversity, temperature, turbidity, salinity

ABSTRACT: An investigation of the benthic faunal communities in Biscayne Bay was conducted. The results were compared to an earlier (1957-1959) investigation in the same area. Changes were found to have occurred in the number of species, abundance, biomass, diversity and spatial dispersion. Low specialization in many species and a low diversity indicated that the communities were disturbed. The reasons for these changes were suggested to be occasionally low winter temperatures, high turbidity and influence by man.

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ACC 228; TYPE ; YEAR 1973
ROSS, B.E.;
THE HYDROLOGY AND FLUSHING OF THE BAYS, ESTUARIES, AND NEARSHORE AREAS OF THE EASTERN GULF OF MEXICO.

IN: J.I. JONES, R.E. RING, MO.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: bay, estuary, hydrology, nearshore, oceanography, mathematical model, tide, gyre, hurricane, salinity, temperature

ABSTRACT: This paper presents pertinent data concerning drainage areas, freshwater flow, and tidal range for the bays, estuaries, and nearshore areas of the eastern Gulf of Mexico. The paper suggests that tidal prisms, tidal exchange, and freshwater replacement times are not sufficient criteria upon which to judge the flushing of a bay, estuary, or near-shore area. The existence of gyres within a bay or estuary or nearshore area is shown to be the important factor in the capability of a body of water to flush a contaminating substance to the open Gulf. A demonstration of the use of mathematical models in the understanding and quantifying of phenomena for the Tampa Bay System is given in this paper. Results are shown for the calculation and confirmation of salinities, temperature, hurricane tides, normal tide heights, current flows, water quality, and the effects of mechanical changes in Tampa Bay.

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ACC 447; TYPE ; YEAR 1983
ROSS, S.T.;
SURF ZONE ICHTHYOFAUNAS OF THE GULF OF MEXICO, BIOLOGICAL IMPORTANCE AND MANAGEMENT IMPLICATIONS.

BIBL PROCEEDINGS OF RESEARCH CONFERENCE ON NORTH GULF OF MEXICO BARRIER ISLANDS AND ESTUARIES, NATIONAL PARK SERVICE. IN PRESS.

KEYWORD: biology, fish, life history, ichthyofauna, morphology, species composition, seasonality, physical process, mullet

ABSTRACT: High energy surf zone habitats bordering the Gulf of Mexico provide an important resource, from both a recreational and biological perspective. Because of the overriding effect of high wind-driven wave energy, such areas show well defined physical characteristics and form a broad filtration system, removing detrital and planktonic components from the water column and concentrating nutrients along the swash zone. Organisms capable of utilizing these regions often show high degrees of morphological, physiological or behavioral specialization and form a very characteristic assemblage. Biological knowledge of surf zone ichthyofaunas in the Gulf of Mexico is still limited, with Horn Island in the northern Gulf and Mustang Island in the western Gulf being the most studied. Surf zone fish faunas are dominated numerically by relatively few species, although over 76 species, most of them rare, have been recorded from the south shore of Horn Island. The faunas are temporally dynamic on both a seasonal and daily basis. Since the surf zone area is utilized by a species often only during part of its life cycle, a strong seasonal periodicity occurs. In general, young fishes occur off high energy beaches in the spring and summer, remaining into early fall. By October and November, in the Northern Gulf, few fishes remain in the habitat, but by early spring numbers begin increasing again. The importance of the region to larger fishes is less well known, in part because of sampling problems. Daily variation also occurs, with the greatest biomass generally before dawn. . . . sh zone, and energy transfer in the surf ecosystem, is needed. It is important to emphasize, however, that the value of a habitat to a species should not be judged solely by the duration that an organism occurs it, but by how critical a role the habitat plays in the life cycle of the species. Temporally dynamic surf zones utilized by various fishes and invertebrates, especially during portions of their early life history, may have a much greater role in the life cycles of the coastal organisms than previously realized.

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ACC 2245; TYPE P; YEAR 1975
ROSS, R.;
SEDIMENTARY STRUCTURES AND ANIMAL-SEDIMENT RELATIONSHIPS: OLD TAMPA BAY, FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF SOUTHERN FLORIDA.

KEYWORD: sediment, distribution, wave, grain size, tide, mathematical model, currents, macrofauna

ABSTRACT: Sediment samples from 41 stations in Old Tampa Bay, Florida were analyzed to determine the textural type and distribution, characteristic sedimentary structures and modes of origin, distribution of geologically significant macrofauna, and nature and amount of bioturbation. Four sedimentary facies were identified in Old Tampa Bay based on physical and biogenic characteristics: clean sand, muddy sand, mud, and marginal sand. The tidal circulation and wave types of each facies area are described. A mathematical model was constructed using sediment distribution data to predict circulation patterns in the bay.

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ACC 2272; TYPE P; YEAR 1975
ROSS, R.W.; MAYOW, T.V.;
SEDIMENTARY STRUCTURES AND ANIMAL.SEDIMENT RELATIONSHIPS IN OLD TAMPA BAY, FLORIDA.

BIBL FLA. SCI. 38 (SUPPL. 1):13.

KEYWORD: sediment, physical, distribution, grain size, macrofauna, structure

ABSTRACT: In order to describe potentially preservable physical and biogenic structures produced in Old Tampa Bay, superficial subtidal sediments were studied in terms of 1) textural type and distribution of sediment being deposited; 2) characteristic sedimentary structures and their modes of origin; 3) distribution of geologically significant macrofauna: and 4) animal-sediment relationships and effects of organisms upon sediments, including intensity of bioturbation. These sedimentary characteristics are potentially useful for deciphering estuarine depositional environments in the rock record. Three laterally gradational sedimentary facies defined on both physical and biological parameters were distinguished in Old Tampa Bay: 1) clean sand facies; 2) muddy sand facies: and 3) mud facies.

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ACC 4126; TYPE P; YEAR 1983
ROSS, S.T.;
SEAROBINS (PISCES: TRIGLIDAE). MEMOIRS OF THE HOURGLASS CRUISES. VOL. VI. PART IV.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 76 P.

KEYWORD: biology, benthic, systematic, distribution, food habit, demersal fish, hourglass, fish, ecology, continental shelf

ABSTRACT: Eleven species of searobins were collected during Project Hourglass, a series of monthly collections (August 1965-November 1967) in 6 to 73 m depths on the central West Florida Shelf. Two of these

species, Prionotus scitulus and P. tribulus, were also collected during a 15-month study (1972-73) in Tampa Bay, Florida. Three of the 11 species, Prionotus stearnsi, Bellator brachychir and B. egretta, were collected only rarely and were excluded from detailed analyses. Major searobin prey were small crustaceans (especially pasiphaeid shrimp), polychaetes and lancelets. Fishes, principally Bregmaceros atlanticus, were eaten by P. roseus, P. alatus and P. salmonicolor. Feeding activity of P. roseus, P. alatus and Bellator militaris was greatest during daylight hours. Prionotus scitulus, P. martis, P. roseus, P. salmonicolor, and P. alatus reproduced primarily during spring and late summer. Prionotus tribulus spawned between fall and spring. Bellator militaris and P. ophryas apparently had greatly protracted spawning activity. The eight species showed distinct differences in bathymetric distribution. Prionotus scitulus, a year-round inhabitant of Tampa Bay, was also collected at the 6 m stations of Project Hourglass. Prionotus tribulus occurred in the shallow Hourglass Statons (6-18 m), and also in Tampa Bay. Prionotus martis, P. ophryas, and Bellator militaris were abundant between 37 and 55 m,. and P. alatus and B. militaris were abundant at 73 m. Searobins were more abundant along the northern Hourglass transect off Tampa Bay than the southern transect off Fort Myers.

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ACC 91; TYPE ; YEAR 1976
ROUSE, L.J.; COLEMAN, J.M.;
CIRCULATION OBSERVATIONS IN THE LOUISIANA BIGHT USING LANDSAT IMAGERY.

BIBL REMOTE SENSING ENVIRON. 5:55-66.

KEYWORD: circulation, physical process, satellite, turbidity, remote sensing, Landsat, water mass, suspended, sediment, wind

ABSTRACT: A method for quantifying the turbidity of offshore water masses using LANDSAT imagery is discussed and the results of a laboratory experiment correlating radiance with concentrations of suspended Mississippi River sediment are presented. The results of the experiment are used to plot suspended sediment contours on eight LANDSAT images of the Louisiana Bight. These contours are observed to depend on the speed and direction of the wind as well as the amount of fresh water discharged by the Mississippi River. The presence of a clockwise circulation in the bight is also indicated by the contours

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ACC 445; TYPE ; YEAR 1975
ROUSSEL, J.E.; KILGEN, R.H.;
FOOD HABITS OF YOUNG ATLANTIC CROAKER (MICROPOGON UNDULATUS) IN BRACKISH PIPELINE CANALS.

BIBL LOUISIANA ACAD. SCI. 38:70-74.

KEYWORD: biology, ecology, feeding habit, fish, pipeline, estuary

ABSTRACT: Not available.

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ACC 2364; TYPE P; YEAR 1970
ROUSE, W.L.;
LITTORAL CRUSTACEA FROM SOUTHWEST FLORIDA.

BIBL QUART. J. FLA. ACAD. SCI. 32(2):127-152.

KEYWORD: Collier, crustacea, decapod, estuary

ABSTRACT: An annotated checklist of decapods, stomatopods, and isopods is presented from studies of the Everglades marshes.

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ACC 2034; TYPE U; YEAR 1974
ROWE, G.T.; POLLONI, P.T.; & HOMER, S.G.;
BENTHIC BIOMASS ESTIMATES FROM THE NORTHWESTERN ATLANTIC OCEAN AND THE NORTHERN GULF OF MEXICO.

BIBL

KEYWORD: benthic, biomass, depth, phytoplankton, water column, zooplankton, distribution

ABSTRACT: Deep sea life was found to be more abundant in the Atlantic Ocean than in the Gulf. The abundance of life followed an exponential decline with depth. The rate of decline could be related to the rate of decrease in phytoplankton production in an offshore direction and the efficiency of water column heterotrophs at utilizing sinking organic matter. The regressions also indicate that both benthos and zooplankton follow similar exponential decays in quantity of life with depth.

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ACC 2132; TYPE P; YEAR 1971
ROWE, G.T.; MENZEL, D.W.;
QUANTITATIVE BENTHIC SAMPLES FROM THE DEEP GULF OF MEXICO WITH SOME COMMENTS ON THE MEASUREMENT OF DEEP SEA BIOMASS.

BIBL BULL. MAR. SCI. 21(2):556-566.

KEYWORD: benthic, infauna, biomass, depth, water column, organic carbon, sediment

ABSTRACT: Benthic samples and photographic survey of 23 stations in the deep Gulf of Mexico revealed a depauperate benthic fauna compared with other basins. In faunal biomass and abundance decreased logarithmically with depth, indicating a loss of energy along a complex food chain through the water column.

An attempt is made to explain east-west differences in biomass with organic carbon in the sediment.

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ACC 2230; TYPE P; YEAR 1976
RUDDELL, J.M.;
A QUANTITATIVE COMPARISON OF MEIOFAUNA DISTRIBUTIONS IN AN OPEN SAND AREA AND A SEAGRASS BED (THALASSIA TESTUDINUM).

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL.

KEYWORD: meiofauna, seagrass, distribution, communities, temperature, salinity, sediment

ABSTRACT: This study quantitatively compared the distribution of meiofauna from a subtidal seagrass bed and an adjacent sand area in the northeastern Gulf of Mexico. Three extraction techniques, Ulig sea ice, Boisseau and decanting were evaluated for extraction efficiency and variability. Only the decanting procedure provided adequate quantitative results for samples collected in this study area. Total meiofauna densities were not significantly different at any of the stations at a sampling frequency of 16 sampling units per station. At the major group level, a variety of distribution patterns were evident. The results suggest that numbers alone, even at the major group level, may not be sufficient to distinguish distribution patterns. Analysis at the species level using Harpacticoids as an example revealed two distinct communities (grass, sand) and a transitional zone.

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ACC 2312; TYPE P; YEAR 1977
RUSHTON, B.; TULLAI, J.;
A CASE STUDY OF ALTERED NEUTRAL ESTUARY: NORTH SIESTA KEY, FLORIDA.

BIBL NEW COLLEGE OF THE UNIVERSITY OF SOUTHERN FLORIDA, ENVIRONMENTAL STUDIES PROGRESS REPORT.

KEYWORD: Sarasota, pollution, seagrass, estuary, water quality, dredging, geomorphology, plankton, seasonality

ABSTRACT: The first part of this report compared water quality and marine life in the four alterd bayous and adjacent bays. The second part investigated the attitudes of the local residents. Geomorphology (soils) history, dredge, and fill history, and pollution history were discussed in detail. Mangroves, seagrasses, the benthos and plankton were sampled and studied. Due to small sample sizes, no patterns emerged to demonstrate or deny seasonal flux of individuals or species, however, consistency of species composition over time was demonstrated. No correlation between species and vegetation type or taxonomic group and vegetation type was found. Rarity-abundance trends did appear (a small number of common species and a large number of rare species).

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ACC 772; TYPE ; YEAR 1965
RUSSELL, R.;
SOME NOTES ON THE LIFE HISTORY OF SHRIMPS OF COMMERCIAL IMPORTANCE IN THE GULF OF MEXICO -- A LITERATURE REVIEW.

BIBL GULF COAST RESEARCH LABORATORY, OCEAN SPRINGS, MS. (UNPUBLISHED REPORT).

KEYWORD: biology, commercial fishery, life history, shrimp, resource, reproduction, parasite, spawning, population dynamics, larvae, food habit

ABSTRACT: This report is a cumulative work on the shrimp resources of the United States Gulf coast to 1965. Sections include notes on reproduction, spawning, larval development, food, parasites, population dynamics, fishery data and regulation of shrimping season based on size of the individuals caught.

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ACC 2528; TYPE P; YEAR 1981
RUSSELL, M.A.C.;
INGESTION AND ASSIMILATION OF CORAL MUCUS PARTICLES BY GORGONIAN SOFT CORALS.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL

KEYWORD: Dade, coral, gorgonian, reef, community, feeding habit

ABSTRACT: The possibility that coral mucus serves as an energy source for the reef community was studied. The utilization of detrital mucus by Pseudoplexaura porosa was examined using radioisotope labelling. Results showed that P. porosa utilized mucus particles which suggests that mucus is a nutritional resource.

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ACC 4127; TYPE P; YEAR 1982
RUTHERFORD, E.S.;
AGE, GROWTH, AND MORTALITY OF SPOTTED SEATROUT, CYNOSCION NEBULOSUS, IN EVERGLADES NATIONAL PARK, FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL.

KEYWORD: biology, commercial fishery, fish, life history, sea trout, recruitment, growth, length, mortality, weight

ABSTRACT: Age, growth and mortality were studied of 570 spotted seatrout taken from sportfishermen catches in Everglades National Park from November 1978 to January 1980. Fish ranged in length from 220 to 680 mm and in weight from 0.10 to 2.24 kg. Ages of the catch, determined from scale readings, were mainly 3 and 4 years old. Males lived to at least six years, females to at least seven years. The sex ratio favored females (1.67/1). Fish lengths at age were back calculated from scale annuli. Fish length varied between sexes and among areas of capture. Males were larger than females at age I but smaller at ages 3-6. Calculated fish length and length at capture were largest in seasonally brackish areas and smallest in the hypersaline area of the Park. There was no significant differences in length-weight relationship between sexes or among areas of capture. Annual mortality rate of all fish was 77%. Male spotted seatrout had higher annual mortality and conditional fishing mortality than females. Conditional natural mortalities were the same for both sexes. Exploitation ratio was higher for males than for females. Yield per recruit for both male and female spotted seatrout was at or near maximum given the 12 inch minimum size limit. Comparison of the results of this study with an earlier study (Stewart, 1961) of Park spotted seatrout showed apparent changes in age distribution, age at full recruitment and mortality since 1959 although yield per recruit and mean sizes at age of fish have not changed. Dominant ages shifted from 2 and 3 year old, to three and four year old fish.

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ACC 4128; TYPE P; YEAR 1983
RUTHERFORD, E.S.; THUE, E.B.; BUKER, D.G.;
POPULATION STRUCTURE, FOOD HABITS, AND SPAWNING HABITS OF GRAY SNAPPER, LUTJANUS GRISEUS, IN EVERGLADES NATIONAL PARK, FLORIDA.

BIBL SOUTH FLORIDA RESEARCH CENTER REPORT SFRC - 83/02. 41 P.

KEYWORD: biology, fish, snapper, life history, reproduction, food habit, spawning area, coastal, recreational fishery, recruitment, length, growth

ABSTRACT: Population structure, food habits, and spawning activity of 1026 gray snapper, Lutjanus griseus, were studied in Everglades National Park from November 1978 through January 1980. Fish were sampled from sportfishermen catches and ranged in length from 111-451 mm F.L. (mean = 257 plus or minus 3.2 mm) and in weight from 0.05-1.6 kg (mean = 0.33 plus or minus .02 kg). There was no difference in mean length between sexes. Fish aged from scale annuli ranged from 1 to 7 years. Two- and 3-year old fish dominated the catch. Recruitment was complete by age 3. The mean age of all fish was 3.0 plus or minus 0.1 years. There was no difference in mean age between sexes. Fish taken from Cape Sable area were significantly older than fish taken from other areas. Calculated growth of gray snapper was greatest in the first year and relatively linear before increasing in the fifth year. Calculated growth varied between sexes and among areas of capture. Females were significantly larger than males at ages 1 and 2. Fish taken from hypersaline areas near the Gulf of Mexico were larger at ages 1 through 4 than fish taken from seasonally brackish waters. Males in the Shark River area did not show as great an increase in weight with length as did all fish in other areas. Females in the Coot Bay and Whitewater Bay area were heavier at a given length than all fish in other areas. Annual survival rate of all fully recruited fish was s = 0.28 plus or minus .03. Survival of males was higher than females. Gray snapper survival was higher in the hypersaline waters near the Gulf than in other areas.

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ACC 4221; TYPE P; YEAR 1974
SACKETT, W.M.;
SIGNIFICANCE OF LOW MOLECULAR WEIGHT HYDROCARBONS IN EASTERN GULF WATERS

BIBL IN: SUMMARY REPORT. IDOE RESEARCH. P. 253-267.

KEYWORD: hydrocarbon, pollution, drilling, baseline study, gas, remote sensing

ABSTRACT: It appears that both natural and man-derived sources of petroleum hydrocarbons give rise to anomalously high concentrations of the low molecular weight components over areas and volumes much larger than the visible manifestation of bubbles from natural seeps or the effluent from offshore platforms and ships. As much of the mass of the bubbles from natural gas seeps goes into solution on rising through the water column, near-bottom concentrations should be most indicative of the presence of these seeps. On the other hand, near-surface concentrations of low molecular weight hydrocarbons should be indicative of man's contributions. The impending environmental baseline program on the outer continental shelf of Florida presents an ideal opportunity to determine the hydrocarbon history of an offshore area, from a relatively virgin to a highly developed state. It is recommended that a detailed near-bottom and near-surface low molecular weight hydrocarbon survey be made concomitantly with an acoustical profiling program for seep detection as soon as possible. Following this initial study a more leisurely seasonal monitoring program for just the near-bottom and near-surface hydrocarbon concentrations during the entire outer continental shelf drilling and production operation is recommended. These periodic surveys should allow an early warning of possible damage to the Eastern Gulf Coast ecosystem.

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ACC 2133; TYPE P; YEAR 1975
SALOMAN, C.H.;
A SELECTED BIBLIOGRAPHY OF THE NEARSHORE ENVIRONMENT: FLORIDA WEST COAST.

BIBL ARMY CORPS ENGR., COAST ENG. RES. CTR., MISC. PAP. NO. 5-75. 268 P.

KEYWORD: bibliography, ecology, coastal, engineering

ABSTRACT: A collection of over 2,900 references on ecological and coastal engineering subjects related to the nearshore environment of the Florida west coast was presented. References were grouped by subject and alphabetized by author within each subject heading.

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ACC 2173; TYPE P; YEAR 1968
SALOMAN, C.H.; ALLEN, D.M.; COSTELLO, T.J.;
DISTRIBUTION OF THREE SPECIES OF SHRIMP (GENUS PENAEUS) IN WATERS CONTIGUOUS TO SOUTHERN FLORIDA.

BIBL BULL. MAR. SCI. 18(2):343-350.

KEYWORD: distribution, decapod, pink shrimp, brown shrimp, abundance

ABSTRACT: Shrimp of the genus Penaeus were collected from southern Florida and western Bahama waters, and were identified to determine species distribution and composition. Penaeus duorarum was the dominant species in southern Florida waters and, together with P. aztecus, occurred along the lower east and west coasts of the state. P. brasiliensis was found to occur near the Florida Keys and along the east coast of southern Florida, and was apparently the dominant species in the western Bahamas. In Biscayne Bay, Florida, P. duorarum was more abundant than P. brasiliensis in all catches examined.

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ACC 2212; TYPE P; YEAR 1982
SALOMAN, C.H.; NAUGHTON, S.P.; TAYLOR, J.L;
BENTHIC COMMUNITY RESPONSE TO DREDGING BORROW PITS, PANAMA CITY BEACH, FLORIDA.

BIBL FOR U.S. ARMY CORPS OF ENGINEERS, MISC. REPT. NO. 82-3.

KEYWORD: benthic, community, hydrology, sediment, salinity, temperature, dredging, fauna, richness

ABSTRACT: The major short-term environmental effects of offshore dredging on benthic fauna at Panama City Beach were studied through analyses of the hydrology, sediments, and benthos of the area. Pre- and post-dredging sediments showed many of the same characteristics. Fauna were compared between dredged and undredged areas on the basis of species richness and abundance. The results showed that recovery began quickly and was nearly complete within 1 year from the time of dredging.

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ACC 2273; TYPE P; YEAR 1965
SALOMAN, C.H.;
BAIT SHRIMP PENAEUS DORARUM IN TAMPA BAY, FLORIDA -- BIOLOGY, FISHERY ECONOMICS AND CHANGING HABITAT.

BIBL U.S. FISH AND WILDLIFE SERVICE. SPEC. SCI. REPORT FISH. NO. 520. 16 P.

KEYWORD: fishery, temperature, salinity, pink shrimp, socioeconomic, shrimp fishery, dredging

ABSTRACT: From October 1961 to April 1962, 6.2 million individuals of Penaeus duorarum, with a retail value of more than $155,000 were produced by the fishery. Females outnumbered males by a narrow margin and were of larger average size than males. Shrimp taken from the two major shrimping areas of Tampa Bay were of different sizes. The smallest specimens were caught toward the headwaters of the estuary, in water relatively low in salinity. About 184 more shrimp were retained per boat-hour in lower Tampa Bay than Old Tampa Bay. Dredge and fill operations were concluded to have measurably reduced the amount of available habitat for shrimp and other estuarine dependent species since 1940.

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ACC 2275; TYPE P; YEAR 1979
SANTOS, S.L.;
CYCLIC DISTURBANCE, RECOLONIZATION AND STABILITY IN AN ESTUARINE SOFT BOTTOM INFAUNAL MACROBENTHIC COMMUNITY.

BIBL PH.D. DISSERTATION. UNIVERSITY SOUTHERN FLORIDA.

KEYWORD: infauna, benthic, defaunation, temperature, salinity, DO, seasonality, recruitment, estuary

ABSTRACT: An ecological study of the soft-bottom macrobenthic community was conducted. A portion of the Hillsborough Bay was found to undergo an annual summer defaunation, with recolonization proceeding in the ensuing months. Whether the community was established by adults or juveniles appeared to be taxon-specific. Settlement was determined to be not exclusively performed by one group of species, and most of the species found were capable of colonizing barren sediment. Regardless of which species colonized initially, by the fourth month following defaunation, some members of the core species group attained high densities and numerically dominated the community until the next defaunation.

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ACC 2276; TYPE P; YEAR 1980
SANTOS, S.L.; BLOOM, S.A.;
STABILITY IN AN ANNUALLY DEFAUNATED ESTUARINE SOFT BOTTOM COMMUNITY.

BIBL OECOLOGIA 46:290-294.

KEYWORD: defaunation, sediment, estuary, fauna

ABSTRACT: A working definition of stability was proposed and data was collected from a soft bottom community in Hillsborough Bay to test stability. The community underwent annual natural catastrophic defaunation. Results supported the working definition and described the stability in the community.

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ACC 2277; TYPE P; YEAR 1983
SANTOS, S.L.; BLOOM, S.A.;
EVALUATION OF SUCCESSION IN AN ESTUARINE MACROBENTHIC SOFT-BOTTOM COMMUNITY NEAR TAMPA, FLORIDA.

BIBL INT. REVUE GES. HYDROBIOL. 68(5):617-632.

KEYWORD: benthic, defaunation, DO, temperature, salinity, recruitment, fauna

ABSTRACT: Macrobenthos in a subtidal area was sampled monthly for 42 months. During the study period complete defaunation occurred 3 times. Recovery and successional patterns were investigated by quantitative and qualitative normal and inverse classification analysis and by rank-order analysis of the dominant species. No consistent patterns were observed.

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ACC 2278; TYPE P; YEAR 1980
SANTOS, S.L.; SIMON, J.L.;
MARINE SOFT-BOTTOM COMMUNITY ESTABLISHMENT FOLLOWING ANNUAL DEFAUNATION: LARVAL AND ADULT RECRUITMENT?

BIBL MAR. ECOL. PROG. SER. 2:235-241.

KEYWORD: defaunation, recruitment, polychaete, mollusc, larvae, crustacean

ABSTRACT: Recolonization, following annual summer defaunation of a large areal soft-bottom community in Hillsborough Bay, Tampa, Florida, was investigated to determine whether adult or larval recruitment was primarily responsible for reestablishing the community. Two quantitative sampling designs were employed: 1) samples of the natural bottom were collected one month after each defaunation during 1975, 1976, and 1977 and washed through a 0.5 mm sieve; 2) containers of azoic sediment were placed and collected weekly during a 10 week period immediately following 1978 defaunation and washed through a 0.25 mm sieve. The weekly samples contained almost all newly settled larvae (99.7%), while the monthly samples contained only 41% newly settled larvae. Whether the community was established by adult or larval settlement appeared to be taxon specific. Polychaetes and molluscs were mostly present as newly metamorphosed larvae. Amphipods, cumaceans and flatworms were initially present as adults. The discrepancies in the results stem from differences in methodologies of the two designs. The conclusion follows that methodologies must be tailored to the specific question posed, and that in this study, the majority of the initial community was established by larval rather than adult settlement.

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ACC 2279; TYPE P; YEAR 1980
SANTOS, S.L.; SIMON, J.L.;
RESPONSE OF SOFT BOTTOM BENTHOS TO ANNUAL CATASTROPHIC DISTURBANCE IN A SOUTH FLORIDA ESTUARY.

BIBL MAR. ECOL. PROG. SER. 3:347-355.

KEYWORD: defaunation, polychaete, crustacean, mollusc, temperature, salinity, DO, recruitment

ABSTRACT: Monthly collections of benthic macrofauna from Hillsborough Bay, a secondary embayment of Tampa Bay, Florida, between February 1975 and July 1978, revealed annual summer defaunations of the soft bottom community. The defaunations were attributed to hypoxia. Recolonization during intervening periods was described. The eight numerically dominant species (3 polychaetes; 3 crustaceans; 2 molluscs), which accounted for 95% of the total density during the study period were classified as rapid colonizers (r-strategists).

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ACC 2174; TYPE P; YEAR 1971
SASTRAUSUMAH, S.;
A STUDY OF THE FOOD OF MIGRATING PINK SHRIMP. PENAEUS DUORARUN BURKENROD.

BIBL SEA GRANT TECH. BULL. NO. 9. UNIV. OF MIAMI SEA GRANT PROG. 36 P.

KEYWORD: pink shrimp, migration, crustacean, polychaete, seagrass, foraminifera, feeding habit, seasonality

ABSTRACT: Investigation was made into the food and feeding habits of juvenile pink shrimp, Penaeus duorarum, during migration out of an estuary near Flamingo, Everglades National Park during 1963. Feeding activity was lowest in the late winter and summer, while it was highest in September. Crustaceans and polychaetes were preferred food, while seagrasses, diatoms, and foraminifera were not preferred. There seemed to be no seasonal differences in kinds of food

taken. Size classes showed no differences in diet or feeding activity.

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ACC 2313; TYPE P; YEAR 1980
SAUERS, S.C.;
SEASONAL GROWTH CYCLES AND NATURAL HISTORY OF TWO SEAGRASSES (HALODULE WRIGHTII ASCHERS, AND THALASSIA TESTUDINUM KANIG) IN SARASOTA BAY, FLORIDA

BIBL ENVIRONMENTAL STATUS OF SARASOTA BAY: SELECTED STUDIES. W.J. TIFFANY. III (ED.), P. AI-A78. MOTE MARINE LAB. SARASOTA, FL. REPT.

KEYWORD: seagrass, biomass, seasonality, turbidity, temperature, salinity, depth, growth, life cycle, distribution

ABSTRACT: Biomass, shoot densities, and leaf areas of two seagrasses were evaluated on a seasonal basis. Various abiotic parameters were related to the floral characteristics. Tidal exposure and turbidity were found to be the major abiotic factors that influence growth and distribution. Flowering by Thalassis was reported (for the first time) in Sarasota Bay.

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ACC 4185; TYPE P; YEAR 1981
SAUER, T.C., JR.;
VOLATILE LIQUID HYDROCARBON CHARACTERIZATION OF UNDERWATER HYDROCARBON VENTS AND FORMATION WATERS FROM OFFSHORE PRODUCTION OPERATIONS.

BIBL ENVIRON. SCI. TECHNOL. 15(8):917-923.

KEYWORD: hydrocarbon, formation water, pollution, offshore water

ABSTRACT: Not available.

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ACC 4129; TYPE P; YEAR 1969
SAUNDERS, R.P.; GLENN, D.A.;
DIATOMS. MEMOIRS OF THE HOURGLASS CRUISES. VOL. I, PART III.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 119 P.

KEYWORD: phytoplankton, biology, hourglass, seasonality, continental shelf, water column

ABSTRACT: Identifications, enumerations, and surface area estimates were made from 216 unpreserved water samples collected from August 1965 through July 1966. Surface, middle, and bottom levels were sampled monthly at six stations located 3, 5, 21, 22, and 42 (two stations) nautical miles (5.6, 9.3, 38.9, 40.7, and 77.8 km) from shore in the Gulf of Mexico between St. Petersburg and Ft. Myers, Florida. The abundance levels, cellular surface areas, and species composition of diatom populations at these stations were examined from the standpoints of seasonality, sampling depths, and salinity; 186 taxa were recorded. Stations located near shore produced the heaviest cell concentrations; those offshore the least. Diatoms (all depths combined) averaged 1.4 x 10 to the 7th u square/l surface area offshore, 13.6 x 10 to the 7th u square/l at intermediate locations, and 13.0 x 10 to the 8th u square/l inshore. Average cell numbers per liter were 8,k570[sic], 169,600, and 1,096,600. The average numbers of taxa recorded were 22, 31, and 42. Species with the greatest total surface area per liter of sample were: Rhizosolenia alata, R. setigera, R. stolterfothii, Skeletonema costatum, Leptocylindrus danicus, Rhizosolenia fragilissima, Hemidiscus hardmanianus, Guinardia flaccida, Bellerochea malleus, and Cerataulina pelagica.

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ACC 2134; TYPE P; YEAR 1975
SAVAGE, T.; SULLIVAN, J.R.; KALMAN, C.E.;
AN ANALYSIS OF STONE CRAB (MENIPPE MERCENARIA) LANDINGS ON FLORIDA'S WEST COAST, WITH A BRIEF SYNOPSIS OF THE FISHERY.

BIBL FLA. MAR. RES. PUBL. NO. 13. 37 P.

KEYWORD: stone crab, fishery, growth

ABSTRACT: Claws of the stone crab, Menippe mercenaria, from the west coast of Florida were examined for handedness, claw type (major or minor) and stridulatory pattern during the 1970-1971 and 1973-1974 commercial seasons. Of the 13,497 claws inspected, 48.4% were right handed major claws. Data is summarized on the proportion of regenerated claws, their sizes, and succession of stridulatory patterns during claw regeneration. A hypothesis is presented to explain the progression of sizes of crabs contributing claws to the fishery through the season.

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ACC 2246; TYPE P; YEAR 1971
SAVAGE, T.;
MATING OF THE STONE CRAB, MENIPPE MERCENARIA (SAY) (DECAPODA; BRACHYURA).

BIBL CRUSTACEANA 20(3):315-316.

KEYWORD: stone crab, behavior, reproduction

ABSTRACT: The mating of a pair of captive stone crabs, Menippe mercenaria, is described. The two crabs were found in the hole of a concrete block in the mating position with the male in the superior position, cradling the female with its walking legs; the female, freshly molted, was inverted in the inferior position with its telson curved over the male's carapace. Both crabs were missing one chela, the absence of which did not appear to prevent either crab from mating successfully. The mating position was maintained for at least 4.5 hr. Another mating pair of stone crabs was observed in the same position in the field.

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ACC 2247; TYPE P; YEAR 1968
SAVAGE, T.; MCMAHAN, M.R.;
GROWTH OF EARLY JUVENILE STONE CRABS, MENIPPE MERCENARIA (SAY, 1819).

BIBL FLA. BD. CONSERV. MAR. RES. LAB.. SPEC. SCI. REPT. NO. 21. 17 P.

KEYWORD: stone crab, development, temperature, salinity, growth

ABSTRACT: Eighty stone crabs (Menippe mercenaria) ranging in size from 1.40 to 33.28 mm carapace width were collected from Tampa Bay, Florida, from October 1965 to October 1966 and raised under laboratory conditions. Ecdysis, claw development, pleopod development, and regeneration of appendages were observed daily. Carapace width and length, frontal-orbital width, and frontal width were measured at termination of the study in August 1967. Descriptions are given of carapaoe growth, cheliped development, and molting frequency.

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ACC 2248; TYPE P; YEAR 1978
SAVAGE, T.; SULLIVAN, J.R.;
GROWTH AND CLAW REGENERATION OF THE STONE CRAB, MENIPPE MERCENARIA

BIBL FLA. MAR. RES. PUBL. NO. 32. 23 P.

KEYWORD: stone crab, growth

ABSTRACT: Incremental growth of carapace width and length and major and minor claws was measured for laboratory-maintained and feral stone crabs. Morphometric relationships were derived for male and female carapace width against major and minor claw sizes. All slopes were significantly different at the 95% confidence levels except for carapace width against female major and male minor claw sizes. Incremental growth of feral male crabs was greater than that of feral female crabs for all measurements. Laboratory females averaged more carapace width growth but less claw growth than did laboratory males. Laboratory growth of all parameters was more uniform but incrementally less than corresponding field growth. Sexual maturity and legal size are attained at 10 and 30 months, respectively, according to a hypothetical growth plot constructed from incremental growth of several crabs. Stone crab claw regeneration is pictorially described. Minor claws regenerated to a larger size after one and two molts (73.5% and 96.5% of preautotomized sizes) than did major claws (68.6% and 89.0%). Intermolt interval of laboratory crabs increased with larger carapace width sizes. Claw loss decreased or increased the intermolt duration depending upon whether the claw was removed shortly after a molt or later in the cycle.

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ACC 2249; TYPE P; YEAR 1974
SAVAGE, T.; SULLIVAN, J.R.; KALMAN, C.E.;
CLAW EXTRACTION DURING MOLTING OF A STONE CRAB, MENIPPE MERCENARIA (DECAPODA; BRACHYURA; XANTIDAE).

BIBL FLA. MAR. RES. PUBL. NO. 4. 5 P.

KEYWORD: stone crab, behavior

ABSTRACT: Observations on the molting behavior of a captive adult stone crab, Menippe mercenaria, are reported. Sutural structures on proximal claw segments, which allow extraction of larger diameter distal segments during molting, are described. In a survey of 24 brachyuran species, most species with subequal diameter (subcylindrical) claws were found to lack these sutural structures. Those with claws having distally larger diameters (subtriangular) possess sutural structures. Exceptions are noted.

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ACC 874; TYPE ; YEAR 1968
SCAFE, D.W.;
A CLAY MINERAL INVESTIGATION OF SIX CORES FROM THE GULF OF MEXICO.

BIBL PH.D. DISSERTATION. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 73 PP.

KEYWORD: mineral, sediment texture, grain size, clay mineralogy

ABSTRACT: Six gravity cores were taken from nearshore and deep sea areas of the Gulf of Mexico between the Mississippi Delta and Sigsbee Deep in an attempt to determine physical, chemical, and mineralogical properties of clay minerals and their geological significance. Tables are included which show particle size distribution for all samples. This study was conducted during 1964.

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ACC 603; TYPE ; YEAR 1978
SCHAPERY, R.A.; DUNLAP, W.A.;
PREDICTION OF STORM INDUCED SEA BOTTOM MOVEMENT AND PLATFORM FORCES.

BIBL PROCEEDINGS OFFSHORE TECHNICAL CONFERENCE, HOUSTON, TX. PAPER 3259: 1789-1796.

KEYWORD: geology, model, sediment transport, sediment, storm, offshore platform, wave

ABSTRACT: Not available.

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ACC 2250; TYPE P; YEAR 1980
SCHLIEDER, R.A.;
EFFECTS OF DESSICATION AND AUTOSPASY ON EGG HATCHING SUCCESS IN STONE CRABS, MENIPPE MERCENARIA.

BIBL U.S. FISH. WILDL. SERV. FISH. BULL. 77(3):695-700.

KEYWORD: stone crab, stress, fishery, salinity, temperature, DO, nutrient, larvae, mortality, management

ABSTRACT: Desiccations of eggs by air exposure of ovigerous female stone crabs reduced larval hatching success in direct relationship to duration of exposure. Experimental claw removal resulted in 34.4% mortality of crabs exposed 2 hrs and 52.9% of crabs exposed 5 hrs. Normal crab autotomic muscular reflex was weakened by desiccation. The compound effects of desiccation with stress from autospasy or claw loss on egg and larval mortality are discussed. Adverse effects on the stone crab fishery by exposure of ovigerous female crabs are noted and protection methods are proposed.

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ACC 184; TYPE ; YEAR 1981
SCHMIDLEY, D.J.;
MARINE MAMMALS OF THE SOUTHEASTERN UNITED STATES COAST AND THE GULF OF MEXICO.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-80/41. 163 PP.

KEYWORD: cetacean, mammal, pinniped, biology, fauna, marine, whale, distribution, abundance, seasonality

ABSTRACT: All of the available data from a 1979 study/survey on the distribution and abundance of marine mammals in the study area was synthesized for this report. The information for cetaceans and pinnipeds is presented in two sections: an analysis of observations and individual species accounts. The former compares the frequency of strandings, sightings, and captures for each species each month. The species accounts present distribution, abundance, status, seasonal movements, and life history for 35 species.

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ACC 2175; TYPE P; YEAR 1979
SCHMIDT, T.W.;
ECOLOGICAL STUDY OF FISHES AND THE WATER QUALITY CHARACTERISTICS OF FLORIDA BAY, EVERGLADES NATIONAL PARK, FLORIDA.

BIBL U.S. NATL. PARK SERV., SO. FLA. RES. CTR., EVERGLADES NATL. PARK, FINAL PROJ. REPT. RSP-EVER N-36.

KEYWORD: distribution, fish, seagrass, community, biomass, diversity, salinity, temperature, DO, turbidity, algae, water quality

ABSTRACT: An ecological study in Florida Bay from May 1973 to October 1976 was conducted to understand the distribution of Florida Bay fishes in relation to changing environmental conditions. The 1066 square kilometer Florida Bay system was found to support benthic seagrass and macroalgae communities composed primarily of Thalassia testudinum, Diplanthera (Halodule) wrightii and the carbonate-precipitating green algae Penicillus sp. Mixed stands of T. testudinum and D. wrightii made up nearly 70% of the principal benthic macrofloral communities in the sampled areas of Florida Bay. Ecological studies on the Florida Bay fishes were directed toward acquiring baseline information on their relative abundance by number and biomass, habitat types and the effect of environmental conditions on their distribution. A total of 182,530 fishes representing 128 species and 50 families were collected throughout Florida Bay. Their total biomass was 764.9 kg. An additional 21 species were identified from sport fish surveys and supplemental observations. In general, the greatest numbers and biomass of the fishes occurred during the wet season (summer and fall months) whereas the lowest numbers and biomass appeared during the dry season (winter and spring months). The greatest abundance and diversity of fishes existed in western Florida Bay followed by eastern and central Bay regions, respectively. Certain species and age-sizes of fish were abundant only in particular macrobiotic communities and habitats. Salinity was the major environmental limiting factor affecting fish distribution.

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ACC 2176; TYPE P; YEAR 1979
SCHMIDT, T.W.;
SEASONAL BIOMASS ESTIMATES OF MARINE AND ESTUARINE FISHES WITHIN THE WESTERN FLORIDA BAY PORTION OF EVERGLADES NATIONAL PARK, MAY 1973 TO JULY 1974, P. 665-672.

IN: PROC. IST CONF. SCI. RES. NATL. PARKS. VOL. 1, R.M. LINN (ED.).

BIBL NATL. PARK SER. TRANS. PROC. SER. NO. 5.

KEYWORD: seasonality, biomass, fish, hydrography, hydrology, estuary

ABSTRACT: A total of 95,344 individuals, distributed among 109 species and 45 families were collected by seine and otter trawl. An additional 17 species were observed or collected in preliminary or supplemental studies. The quantitative distribution of marine and estuarine fishes in western Florida Bay was determined to undergo considerable fluctuation, not only in relation to the biological features of each unique habitat but were importantly, as they are influenced by the cyclicity of the hydroperiods.

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ACC 2177; TYPE P; YEAR 1978
SCHMIDT, T.W.; DAVIS, G.E.;
A SUMMARY OF ESTUARINE AND MARINE WATER QUALITY INFORMATION COLLECTED IN EVERGLADES NATIONAL PARK, BISCAYNE NATIONAL MONUMENT, AND ADJACENT ESTUARIES FROM 1879 TO 1977.

BIBL U.S. NATL. PARK SERV., SO. FLA. RES. CTR., EVERGLADES NATL. PARK, REPT. T-5 19. 79 P.

KEYWORD: hydrographic, estuary, water quality

ABSTRACT: This report summarizes several published and unpublished reports of water quality information in Everglades National Park, Biscayne National Monument, and adjacent estuaries as the first step in the design, development, and implementation of a comprehensive monitoring system. Most of these data were collected in conjunction with short term multidisciplinary investigations. A total of 55 hydrographic studies were conducted in Florida Bay; 17 in the Everglades estuary; 16 in southern Biscayne Bay; 14 in Card-Barnes Sound; 7 in the Big Cypress estuary; and 5 in the area of the northern coral reef tract. A summary of the water quality parameters minimum and maximum was also presented.

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ACC 2529; TYPE P; YEAR 1980
SCHMAHL, G.P.; TILMANT, J.T.;
AN INITIAL CHARACTERIZATION OF MACROINVERTEBRATE POPULATIONS ASSOCIATED WITH PATCH REEFS OF BISCAYNE NATIONAL MONUMENT.

BIBL FLA. SCI. 43(SUPPL 1):23.

KEYWORD: Dade, invertebrate, reef, diversity, mollusc, sponge, invertebrate

ABSTRACT: Benthic macroinvertebrates, excluding corals, on patch reefs of Biscayne National Monument were studied in an assessment of the impact of recreational use on the reefs. Eight reefs were sampled semiannually beginning in the summer of 1978 with 25-40 one square meter quadrants along a transect. Invertebrate populations were found to be highly variable both spacially and temporally. Density values ranged from 4.8 to 27.0 mean # individuals/sq. meter. Shannon-Weaver diversity indices ranged from 2.26 to 3.22. Molluscs had the highest diversity; sponges exhibited the highest density. A long term monitoring program of invertebrate populations is planned.

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ACC 4132; TYPE P; YEAR 1986
SCHMIDT, T.W.;
FOOD OF YOUNG LEMON SHARKS, NEGAPRION BREVIROSTRIS (POEY), NEAR SANDY KEY, WESTERN FLORIDA BAY.

BIBL FLA. SCI. 49(1):7-10.

KEYWORD: coastal, biology, food habit, fish, predation, pink shrimp, seagrass, benthic, invertebrate, shark, demersal fish

ABSTRACT: The food habits of the lemon shark, Negaprion brevirostris, were investigated by examining the stomach contents of juveniles between 58 and 100 cm in total length from shallow grass flats near Sandy Key in western Florida Bay, Everglades National Park, Florida. Small demersal fish, mainly Opsanus beta and Lagodon rhomboides, and the commercially important pink shrimp, Penaeus duorarum, were the most common dietary items of N. brevirostris in the coastal marine waters. Small, fast-moving pelagic fishes were also found in the shark's diet.

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ACC 2365; TYPE P; YEAR 1963
SCHOLE, D.W.;
SEDIMENTATION IN MODERN COASTAL SWAMPS, SOUTHWESTERN FLORIDA.

BIBL BULL. AM. ASSOC. PETR. GEO. 47(8):1581-1603.

KEYWORD: Collier, physical, chemical, biological, sediment, coastal, currents, salinity, estuary

ABSTRACT: Fundamental physical, chemical, mineralogical, and biological characteristics of the sediments in the coastal mangrove swamps of the study area were reported. Surface sediments of the Ten Thousand Islands area were mainly calcareous (shelly) or organic rich (peaty) calcareous quartz sands and silts. Deposits in White Water Bay were principally organic rich shell debris. Surface sediments of the two areas

differed chiefly because the prominent source of detrital quartz and strong tidal currents which exist in the Ten Thousand Islands were essentially lacking in White Water Bay.

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ACC 4130; TYPE P; YEAR 1982
SCHOMER, N.S.; DREW, R.D.;
AN ECOLOGICAL CHARACTERIZATION OF THE LOWER EVERGLADES, FLORIDA BAY AND THE FLORIDA KEYS.

BIBL U.S. FISH AND WILDLIFE SERVICE, FWS/OBS-8258.1. 246 P.

KEYWORD: hydrography, geology, biology, ecology, habitat, management, seagrass, reef, benthic, coastal, community, model, estuary, coral

ABSTRACT: A conceptual model of the study area identifies four major ecological zones: 1) terrestrial and freshwater wetlands, 2) estuarine and saltwater wetlands, 3) Florida Bay and mangrove islands and 4) the Florida Keys. These zones are delineated by differences in basic physical-chemical background factors which in turn promote characteristic ecological communities. The terrestrial and freshwater wetlands support pinelands, sawgrass marshes, wet prairies, sloughs and occasional tree islands. The estuarine and saltwater wetlands support mangrove forests, salt marshes and oscillating salinity systems. Florida Bay exhibits oscillating meso- to hypersaline waters over grass beds on marine lime mud sediments surrounding deeper "lake" areas. The exposed tips of the mud banks frequenty support mangrove or salt prairie vegetation. The Florida Keys support almost all of the above communities to some small degree but are characterized by extensive coral reefs. The productivity of these communities with regard to fish and wildlife reflects 1) the diversity and type of habitats available to species that are potentially capable of exploiting them, 2) the degree of alteration of these habitats by man and natural forces, and 3) historical, biogeographic and random factors that restrict organisms to specific environments or prohibit them from exploiting a potential habitat.

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ACC 4133; TYPE P; YEAR 1974
SCHROEDER, W.W.; BERNER, L., JR.; NOWLIN, W.D.;
THE OCEANIC WATERS OF THE GULF OF MEXICO AND YUCATAN STRAIT DURING JULY 1969.

BIBL BULL. MAR. SCI. 24(1):1-19.

KEYWORD: hydrography, circulation, currents, physical, oceanography, salinity, eddy, dynamic height

ABSTRACT: The summer hydrography of the Gulf of Mexico is examined on the basis of R/V Alaminos Cruise 69-A-10 during July 1969, and 127 stations occupied by the USNS Kane during the same summer. The T.S relationships observed indicate three water masses: (1) a single uniform deep-water system; (2) inflowing warmer water of Caribbean type with a high salinity maximum at the Subtropical Underwater core; and (3) Gulf water with a reduced salinity maximum. The waters of the surface mixed layer showed spatial differences reflecting total conditions of inflow and runoff. The horizontal current pattern has been inferred from the depth distribution of the 22 degrees C isothermal surface, from the lateral distribution of salinity at the Subtropical Underwater core, and from the dynamic topography of the sea surface relative to the 750-db surface. During July, two detached rings, a young ring in the north central gulf and the remnant of an older ring in the far western gulf, were present.

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ACC 2366; TYPE P; YEAR 1973
SEAMAN, W.; ADAMS, C.A.; SNEDAKER, S.C.;
THE ROLE OF MANGROVE ECOSYSTEMS: BIOMASS DETERMINATIONS IN SHALLOW ESTUARIES--TECHNIQUE EVALUATION AND PRELIMINARY DATA.

BIBL U.S. DEPT. OF INT., BUR. OF SPORT FISH. & WILDL., SO. FLA. ENVIR. PROJ.: ECOL. REPT. NO. EI-SFEP-74-41, 25 P.

KEYWORD: Collier, biomass, fish, estuary

ABSTRACT: A new type of portable drop net was developed and used to quantitatively harvest fishes from sample areas in shallow estuaries. The technique was shown to be suitable for sedentary benthic and vegetation inhabiting fishes, including eels, gobies, gerriads, syngnathids and juvenile pinfish, sciaenids, and flatfishes. The technique and preliminary results were evaluated and compared with reports in the literature describing techniques to estimate fish biomass.

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ACC 4175; TYPE P; YEAR 1976
SEESMAN, P.A.; WALKER, J.D.; COLWELL, R.R.;
BIODEGRADATION OF OIL BY MARINE MICROORGANISMS AT POTENTIAL OFFSHORE DRILLING SITES.

BIBL AMER. INSTIT. OF BIOLOGICAL SCIENCES: WASHINGTON, D.C. 293-297.

KEYWORD: offshore drilling, oil, bacteria, microfauna, hydrocarbon

ABSTRACT: Not available.

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ACC 4131; TYPE P; YEAR 1979
SERAFY, D.K.;
ECHINOIDS (ECHINODERMATA: ECHINOIDEA). MEMOIRS OF THE HOURGLASS CRUISES. VOL. V, PART III.

BIBL MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 120 P.

KEYWORD: echinodermata, epifauna, population dynamics, food, habit, biology, systematic, distribution, hourglass, benthic, life history, ecology, continental shelf

ABSTRACT: Twenty-five echinoid species including more than 44,000 specimens were collected during Project Hourglass, a 28-month survey of ten stations along two transects (depths 6-73 m) off the west Florida shelf. Differential diagnoses and information on distributions and substrate affinities are provided for all species; notes on diet, growth and reproduction, population dynamics, gear selectivity and morphometric and meristic relationships are provided for more common species. Keys to orders and 91 species and/or subspecies from the Gulf of Mexico or adjacent waters are provided; there is also a glossary of terms. Species and stations clustered into an inner shelf group at 6-18 m, a transitional group of stations at 37 m, and an outer shelf group at 55-73 m. The Gulf of Mexico has few endemic echinoid species; the fauna is composed primarily of species with tropical origins which have invaded the Gulf to varying degrees.

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ACC 802; TYPE ; YEAR 1983
SHABICA, S.V.; CATER, N.B.; CAKE, E.W., EDS.;
PROCEEDINGS OF THE NORTHERN GULF OF MEXICO ESTUARIES AND BARRIER ISLANDS RESEARCH CONFERENCE, JUNE 13-14, 1983, BILOXI, MS.

BIBL NATIONAL PARK SERVICE, SOUTHEAST REGIONAL OFFICE, ATLANTA, GA. 119 PP.

KEYWORD: barrier island, estuary, offshore minerals, development

ABSTRACT: These proceedings include papers given at the Northern Gulf of Mexico Estuaries and Barrier Islands Research Conference. This conference was held to bring together much of the current knowledge of barrier islands and estuaries of the northern Gulf. Fifteen of the forty-four presentations given at the conference are published here as format papers. The volume is divided into four sections: estuaries, offshore petroleum exploration and development, barrier islands, and resources management.

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ACC 4188; TYPE P; YEAR 1980
SHARP, J.M.; BENDER, M.; APPAN, S.G.; REISH, D.J.; WARD, C.H.;
ECOLOGICAL MONITORING AND ITS APPLICATION TO OFFSHORE DRILLING AND PRODUCTION.

BIBL PROC. WORLD PET. CONGR. 10(5):13-22.

KEYWORD: offshore drilling, pollution

ABSTRACT: Not available.

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ACC 4289; TYPE P; YEAR 1982
SHARP, J.M.; APPAN, S.G.;
THE CUMULATIVE ECOLOGICAL EFFECTS OF NORMAL OFFSHORE PETROLEUM OPERATIONS CONTRASTED WITH THOSE RESULTING FROM CONTINENTAL SHELF OIL SPILLS.

BIBL PHILOS. TRANS. R. SOC. LOND. SER. B. BIOL. SCI. (LONDON) 297(1087):309-322.

KEYWORD: continental shelf, oil spill, petroleum, pollution

ABSTRACT: Not available.

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ACC 4301; TYPE P; YEAR 1981
SHERIDAN, P.F.; RAY, S.M.;
REPORT OF THE WORKSHOP ON THE ECOLOGICAL INTERACTIONS BETWEEN SHRIMP AND BOTTOMFISHES, APRIL 1980.

BIBL REPT. NO. NOAA-TM-NMFS-SEFC-63., NOAA-83110310. 140 P.

KEYWORD: shrimp, fish, community, fishery, management, distribution, demersal fish, socioeconomic

ABSTRACT: The Shrimp and Bottomfish Workshop was convened in an attempt to determine the best research approach to understanding and defining the interactions between penaeid shrimp and bottomfish communities in the Gulf of Mexico. The shrimp fishery of the Gulf of Mexico is the most valuable fishery in the continental United States. The fisheries are not mutually exclusive, since each takes incidental catches of the other. Shrimp and bottomfishes are found at different abundance levels on the inshore and offshore fishery grounds but utilize similar inshore nursery areas. The impacts of the inshore and offshore shrimp fisheries on bottomfish biomass are unknown. Furthermore, at this time the predatory/prey relationships between shrimp and bottomfishes on the continental shelf are poorly understood. For the above reasons and the need to implement fishery management plans for both shrimp

and bottomfishes, it is imperative to develop a firm understanding of the ecology of these two major species groups.

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ACC 4229; TYPE P; YEAR 1985
SHERIDAN, P.F.; TRIMM, D.L.; BAKER, B.M.;
REPRODUCTION AND FOOD HABITS OF 7 SPECIES OF NORTHERN GULF OF MEXICO FISHES

BIBL MAR. SCI. 27(0):175-204.

KEYWORD: reproduction, food habit, fish, sea trout, shrimp, polychaete, crustacean, epifauna, infauna, growth, crab

ABSTRACT: Sex ratios, length-weight relationships, maturation, fecundity and food habits were determined from 7400 individuals of 7 spp. of inner continental shelf fishes. Samples were taken from trawl catches at depths of 9-91 m from Pensacola Bay, Florida and Brownsville, Texas (USA) and from the Campeche Bank, Mexico during October 1980-June 1982. Sex ratios favored males in silver seatrout, Cynoscion nothus, and Atlantic cutlassfish, Trichiurus lepturus, favored females in Atlantic croaker, Micropogonias undulatus, hardhead catfish Arius felis and longspine porgy, Stenotomus caprinus, but were equal in sand trout, C. arenarius, and spot, Leiostomus xanthurus. Peak gonadal development was found during spring in longspine porgy, summer seatrouts, spring through fall in Atlantic cutlassfish, and fall in spot and Atlantic croaker. The first Gulf of Mexico fecundity data for 6 of these species (2nd record for hardhead catfish) indicated the following maximum fecundities: hardhead catfish 104 eggs; Atlantic maximum fecundities; hardhead catfish, 104 eggs; Atlantic cutlassfish, 42,100; longspine porgy, 43,100; spot 514,400; and Atlantic croaker, 1,075,000. Food habits on either side of the Mississippi Delta were related to age, location and time of capture. Atlantic cutlassfish were piscivorous. Sand silver seatrouts preyed on a mixture of fishes and shrimps, and although sand seatrouts did not vary with age and location. Silver seatrouts diets did. The remaining species were benthic feeders. Spot fed primarily on polychaetes and detrital matter and secondarily on crustaceans.

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ACC 4244; TYPE P; YEAR 1983
SHERMAN, K.; LASKER, R.; RICHARDS, W.;
KENDALL, A.W., JR.;
ICHTHYOPLANKTON AND FISH RECRUITMENT STUDIES IN LARGE MARINE ECOSYSTEMS

BIBL MAR. FISH REV. 45(10-12):1-26

KEYWORD: ichthyoplankton, fish, recruitment, management, fish egg, fish larvae, spawning

ABSTRACT: Within the Fishery Management Zone of the United States, seven large marine ecosystems (LME's)--Insular Pacific, Eastern Bering Sea, Gulf of Alaska, California Current, Gulf of Mexico, Southeast Atlantic Shelf, and Northeast Atlantic Shelf--support multibillion dollar fisheries, operating at different levels. To improve abundance forecasts of recruitment success of incoming year classes, two assessment strategies are used by NMFS in the LME's: 1) Fisheries independent surveys of fish eggs and larvae on mesoscale grids of 20-100 km at frequencies of two to 12 times a year to obtain estimates of the size of the spawning adult stocks, and 2) other studies within the meso scale survey matrix aimed at discovering the processes controlling the annual recruitment success of new year classes.

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ACC 886; TYPE ; YEAR 1965
SHIER, C.F.;
A TAXONOMIC AND ECOLOGICAL STUDY OF SHALLOW WATER HYDROIDS OF THE NORTHEASTERN GULF OF MEXICO.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL. 170 PP.

KEYWORD: benthic fauna, benthic flora, sediment, salinity, temperature, hydroid, abundance

ABSTRACT: Monthly samples of shallow water hydroids were collected from 6 stations in the northeastern Gulf of Mexico for one year beginning in July, 1963. Environmental notes on temperature, salinity, abundance, and bottom type were kept.

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ACC 2367; TYPE P; YEAR 1969
SHIER, D.E.;
VERMETID REEFS AND COASTAL DEVELOPMENT IN THE TEN THOUSAND ISLANDS, SOUTHWEST FLORIDA.

BIBL GEOL. SOC. AM. BULL. 80:485-508.

KEYWORD: Collier, sediment, reef, temperature, wave, tide, currents, salinity, geologic history, sea level, eustatic change

ABSTRACT: Sediments underlying the Ten Thousand Islands have been deposited over the past 5000 years during a marine transgression. Macrofauna and microfauna were used to interpret the depositional environment for these sediments. With the transgression of marine waters into the area about 3000 years ago, a chain of gastropod (Vernetus nigricans) reefs formed along the coastline. During a 6 ft. increase in sea level, the reefs have grown larger and more numerous to form a barrier reef which has greatly influenced sedimentation throughout the Ten Thousand Islands. A system of bay bottom sands and silts, tidal pass sands, oyster bars, and mangrove peats has accumulated behind the reef barrier. Wave resistant reef cores, consisting of fused vermetid

tubes, were built up as much as 9 ft thick during the period of sea level rise. The ecology of V. (Thyleodus) nigricans is discussed.

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ACC 2178; TYPE P; YEAR 1977
SHINN, E.A.; HUDSON, J.H.; HALLEY, R.B.; LIDZ, B.;
TOPOGRAPHIC CONTROL AND ACCUMULATION RATE OF SOME HOLOCENE CORAL REEFS: SOUTH FLORIDA AND DRY TORTUGAS.

BIBL IN: PROC. THIRD INTERNAT. CORAL REEF SYMP., MIAMI, FLA. 2:1-7

KEYWORD: reef, coral, morphology, geologic history

ABSTRACT: Examination of cores drilled on 6 reef sites in the Florida Reef Tract and Dry Tortugas showed that reef ymorphology is determined primarily by underlying topography. Reef accumulation rates, determined from carbon-14 dating of coral, ranged from 0.38 m/1000 years in thin Holocene reefs to 4.85 m/1000 years in thicker reefs. Areas of slow accumulation rates were characterized by a higher incidence of cementation and alteration of corals than in areas of rapid accumulation rates. The primary reef builder in Florida, Acropora palmata, was absent at most reef sites, including the 13 m thick Holocene reef at Dry Tortugas. Instead, the chief reef builders are the same as those contained in the Pleistocene Key Largo formation, which has been considered a fossilized patch reef complex.

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ACC 2470; TYPE P; YEAR 1963
SHINN, E.A.;
SPUR AND GROOVE FORMATION ON THE FLORIDA REEF TRACT.

BIBL J. SEDIMENT. PETROL. 33(2):291-303.

KEYWORD: Monroe, reef, algae, wave, coral, growth, morphology

ABSTRACT: The internal structure of submarine reef spurs (10-12 ft high, <50 ft wide) from two Key Largo coral reefs was investigated by explosive dissection. The spurs were composed mainly of Acropora palmata encrusted by Millepora and calcareous algae. A theory of spur and groove formation is proposed based on oriented growth of A. palmata. On the seaward slope of reefs the branches of A. palmata orient in the direction of prevailing seas to withstand wave thrust. Continued unidirectional growth results in coalescence of individual colonies into fingerlike spurs that project up to 200 ft into oncoming seas. The corals die from crowding when they reach the surface and later become encrusted with Millepora and calcareous algae. Coral growth in the grooves between spurs is prevented by moving sand.

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ACC 2471; TYPE P; YEAR 1966
SHINN, E.A.;
CORAL GROWTH-RATE, AN ENVIRONMENTAL INDICATOR.

BIBL J. PALEONTOL. 40(2):233-240.

KEYWORD: Monroe, coral, growth, temperature, reef, seasonality

ABSTRACT: The growth rate of the branching coral, Acropora cervicornis transplanted into two areas of Key Largo Dry Rocks reef where they do not normally grow, was measured 12 times between December 1960 and February 1961 and compared to a control group living on a healthy reef. Growth of transplanted corals averaged less than half that of controls, which grew 10 cm/yr. One transplanted group grew as fast as the control group for 2 months, but died after 10 months when water temperature declined to 13.3 degrees C. Seasonal variation in coral growth at all stations generally corresponded to temperature fluctuations. Growth rate was highest when temperature ranged from 28 to 30 degrees C. This transplanting method is proposed for use in determining growth tolerances of other reef building organisms.

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ACC 2472; TYPE P; YEAR 1972
SHINN, E.A.;
CORAL REEF RECOVERY IN FLORIDA AND IN THE PERSIAN GULF.

BIBL ENVIRON. CONSERV. DEPT., SHELL OIL CO., HOUSTON, TX. 9 P.

KEYWORD: Monroe, coral, reef, temperature, growth, storm event, hurricane

ABSTRACT: A long term study (1960-1975) in the Florida Keys showed rapid recovery of coral reefs after large scale destruction by hurricanes. Widespread scattering of live fragments initiated new colonies, promoting rapid recovery. Recovery of reefs from low temperature-induced death in the Persian Gulf was compared with reef recovery from storm destruction in Florida. Rapid Acropora cervicornis recovery was due to a high rate of growth (10 cm/yr) and branch formation, confirmed by 10 years of serial underwater photographs. It is suggested that standing crops of restocked or transplanted reefs could be predicted with more precise growth measurements of A. cervicornis and other common reef building corals.

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ACC 2473; TYPE P; YEAR 1980
SHINN, E.A.;
GEOLOGIC HISTORY OF GRECIAN ROCKS, KEY LARGO CORAL REEF MARINE SANCTUARY.

BIBL BULL. MAR. SCI. 30(3):646-656.

KEYWORD: Monroe, morphology, coral, geology, geologic history, growth

ABSTRACT: Seven core holes (8.13 m deep) were drilled across the major ecological zones of Grecian Rocks in Key Largo Coral Reef Marine Sanctuary to determine the internal morphology and age. Coral facies in the Holocene reef were found to correspond closely to facies in the underlying Pleistocene material. The five major ecologic zones and their characteristic coral compositions are described. Cores showed that all zones except the massive coral head zone are thin layers overlying an accumulation of carbonate sand and rubble. Carbon 14-dating indicated that growth of the reef began about 6,000 years before present.

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ACC 2474; TYPE P; YEAR 1981
SHINN, E.A.; HUDSON, J.H.; ROBBIN, D.M.; LIDA, B.;
SPURS AND GROOVES REVISITED: CONSTRUCTION VERSUS EROSION, LOOE KEY REEF, FLORIDA.

BIBL FLORIDA INTERNAT. CORAL REEF SYMP.

KEYWORD: Monroe, carbonate, reef, coral, topography, morphology, geologic history, sea level

ABSTRACT: Six core holes drilled into a spur and groove system at Looe Key Reef, Florida, indicated that there was at least 5 meters of underlying carbonate reef sand, the base of which was flat and therefore could not affect the initiation or spacing of spurs and grooves. Only the seaward ends of the spurs were attached to underlying bedrock. Acropora palmata, a coral formerly abundant on the reef, composed the interior of the Millepora encrusted spurs. It is proposed that the most shallow spurs and grooves in active coral reef areas of the Caribbean are not initiated or regulated by bedrock topography, but are constructional in origin. Spurs and grooves in non-coral reef areas adjacent to shorelines, which have distinctly different spacing are believed have an erosional origin. Spurs and grooves in deeper fore-reef areas off Florida with a morphology similar to that of nearshore systems, therefore, formed from erosion during periods of lower sea level.

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ACC 4189; TYPE P; YEAR 1980
SHINN, E.A.; HUDSON, J.H.; ROBBIN, D.M.; LEE, C.K.;
DRILLING MUD PLUMES FROM OFFSHORE DRILLING OPERATIONS: IMPLICATIONS FOR CORAL SURVIVAL.

BIBL ELSEVIER OCEANOGR. SER. (AMSTERDAM) 27A(VI):471-496,531-568.

KEYWORD: coral, drilling mud, pollution, drilling fluid, turbidity

ABSTRACT: Not available.

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ACC 826; TYPE ; YEAR N/AP
SHIPP, R.L.;
THE BULLDOZER LOBSTER, SYLLARIDES, OF THE NORTHEASTERN GULF.

BIBL N/A

KEYWORD: benthic fauna, temperature, crustacean, behavior, food habit

ABSTRACT: This study is designed to determine the population size and distribution of bulldozer lobsters, Syllarides, in the northeastern Gulf of Mexico. Data collection began in 1972. Trawl studies, traps and submarine observations have been utilized to date. Laboratory observations of feeding preferences and social behavior have been made. Trawl data including species lists of vertebrates and invertebrates, depth and temperature are available.

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ACC 1054; TYPE ; YEAR 1979
SHIPP, R.L.; BORTONE, S.;
CHAPTER 19. DEMERSAL FISH. P. 861-867.

IN: THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL SURVEY.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C.

KEYWORD: biology, fish, species composition, taxonomy, zoology, demersal fish, MAFLA, length, weight

ABSTRACT: Demersal fishes from the MAFLA lease area were collected during four sampling periods: summer 1976, summer 1977, fall 1977, winter 1978. All specimens were identified, weighed, measured, and archived. Data were submitted to the data management group of Dames & Moore for analysis, which were then interpreted. Initial indications are of significant range extensions of fishes in the northeastern Gulf of Mexico, especially in the vicinity of the northeast segment of the De Soto Canyon. Several undescribed species were discovered during the effort period. Families containing species of special concern to the MAFLA goals are discussed. Data analysis techniques are utilized describing various biological parameters. In addition, samples collected during 1975-1976 as a component of an earlier MAFLA effort were incorporated into the analysis.

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ACC 2135; TYPE P; YEAR 1978
SHIPP, R.L.; BORTONE, S.A.;
DEMERSAL FISHES OF THE MAFLA LEASE AREA. VOL. II, CHAPT. 19.

IN: MAFLA FINAL REPORT (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL STUDY). 1977/1978.

BIBL PREPARED BY DAMES AND MOORE, INC. FOR BLM CONTRACT #AA550-CT7-34. P. 848-888.

KEYWORD: demersal fish, MAFLA, distribution, fish, weight, length

ABSTRACT: Demersal fishes from the MAFLA lease area were collected, identified, weighed, measured and archived. Initial indications are of significant range extensions of fishes in the northeastern Gulf of Mexico. Several undescribed species were collected. Species associations were analyzed and a complete species list compiled.

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ACC 2136; TYPE P; YEAR 1978
SHOKES, R.F.; HANSEN, N.; ABUSAMARA, A.; REED, J.;
BARIUM AND VANADIUM IN SURFICIAL SEDIMENTS. MAFLA BENCHMARK SURVEY, 1977-1978. FINAL REPORT. VOL. II, CHAPT.4.

IN: MAFLA FINAL REPORT (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL STUDY), 1977/1978.

BIBL PREPARED BY DAMES AND MOORE, INC., FOR BLM CONTRACT #AA550-CT7-34 P. 375-405.

KEYWORD: barium, continental shelf, distribution, sediment, pollution, offshore drilling, drilling mud, metal, trace metal

ABSTRACT: Concentration data for total and leachable sedimentary barium and vanadium on the outer continental shelf were obtained. No anthropogenic influences on the distribution of these two elements were observed. The low amounts of leachable barium found over the study area make it a potentially sensitive monitoring tool to safeguard the area during oil and gas production.

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ACC 2137; TYPE P; YEAR 1978
SHOKES, R.F.; SIMS, R.R.; HANSEN, N.; ABUSAMARA, A.; REED, J.;
BARIUM AND VANADIUM IN DEMERSAL FISH AND MACROEPIFAUNA. MAFLA FINAL REPORT (THE MISSISSIPPI, ALABAMA, FLORIDA OUTER CONTINENTAL SHELF BASELINE ENVIRONMENTAL STUDY 1977/1978).

BIBL PREPARED BY DAMES AND MOORE, INC. FOR BLM CONTRACT #AA550-CT7.34 P. 464-493.

KEYWORD: barium, demersal fish, epifauna, seasonality, geographic, sponge, mollusc, crustacean, echinoderm, metal, trace metal

ABSTRACT: Barium and vanadium concentration data from demersal fish and macroepifauna from the southwest Florida shelf are presented. Macroepifauna demonstrated no observable seasonal or geographic trends. Syacium papillosum, the only demersal fish sampled extensively, revealed no geographic trends for either metal, but experienced lower barium tissue burdens in the winter than in the summer. This may have been caused by specimen maturity, feeding habits, or some combination of the two.

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ACC 433; TYPE ; YEAR 1982
SIKORA, W.B.; SIKORA, J.P.;
HABITAT SUITABILITY INDEX MODELS: SOUTHERN KINGFISH.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FSW-OBS-82-10.31 22 PP.

KEYWORD: biology, ecology, fish, management, resource, habitat, life history, model, fishery

ABSTRACT: Not available.

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ACC 2348; TYPE P; YEAR 1979
SILBERMAN, L.Z.;
A SEDIMENTOLOGICAL STUDY OF THE GULF BEACHES OF SANIBEL AND CAPTIVA ISLANDS, FLORIDA.

BIBL FLA. STATE UNIV. M.S. THESIS.

KEYWORD: Lee, sediment, grain size, transport, distribution

ABSTRACT: One hundred and sixty sediment samples collected along the Gulf of Mexico beaches of Captiva and Sanibel Islands, Florida were used to characterize the sediments of the upper and mid beach, swash zone, and offshore bar. Statistical analysis of grain size parameters indicated a net sediment transport to the south and east. Detailed descriptions are given of local sediment distribution and transport processes.

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ACC 1095; TYPE ; YEAR 1972
SIMMONS, A.T.;
THE DYNAMICS OF NITROGEN AND PHOSPHORUS IN A BAYOU ESTUARY.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 46 PP

KEYWORD: ammonia, dissolved oxygen, nitrate, nitrite, nitrogen, orthophosphate, phosphorus, photosynthesis, salinity, temperature, nutrient, estuary

ABSTRACT: The nitrogen and phosphorus cycles and dynamics were described for Bayou Texar, Florida, by monitoring levels of nitrate, nitrite, ammonia, orthophosphate, organic nitrogen, organic phosphorus at five stations from June, 1971 to February, 1972.

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ACC 2251; TYPE P; YEAR 1982
SIMON, J.L.; MAHADEVAN, S.;
BENTHIC MACROINVERTEBRATES.

BIBL PRESENTED AT TAMPA BAY AREA SCIENTIFIC INFORMATION SYMPOSIUM. TAMPA, FLORIDA.

KEYWORD: invertebrate, seagrass, community, life history, abundance, diversity, pollution, pink shrimp, stone crab

ABSTRACT: Approximately 70 publications on benthic macroinvertebrates from Tampa Bay were reviewed. Subjects of the studies were diverse, including commercially important species (Penaeus duorarum, Crassostrea virginica, Menippe mercenaria), seagrass associated fauna, and large scale benthic infaunal communities. Principal objectives of these investigations included life history studies, studies on recolonization and repopulation, and evaluations of dredge/fill, sewage, phosphoric wastes, and thermal effects. Based on these studies, the following general conclusions were reached: 1) approximately 1,200 infaunal and epifaunal benthic species inhabit Tampa Bay; 2) seasonal fluctuations in the abundance and diversity of benthic macroinvertebrates are pronounced; 3) long term (about 5 yrs) cyclic defaunation occurs regularly; 4) seagrass beds have declined with a subsequent decrease in faunal diversity; 5) opportunistic and "pollution indicator" species are abundant at several locations, particularly in Hillsborough Bay; 6) faunal distribution appears to be controlled by sediment type; 7) species richness increases and abundance decreases on a north to south gradient in the bay. Reasons for this gradient are proposed and directions for future research in the bay are recommended.

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ACC 2280; TYPE P; YEAR 1972
SIMON, J.L.; DAUER, D.M.;
A QUANTITATIVE EVALUATION OF RED TIDE INDUCED MASS MORTALITIES OF BENTHIC INVERTEBRATES IN TAMPA BAY, FLORIDA.

BIBL ENVIRON. LETT. 3(4):229-234.

KEYWORD: red tide, benthic, infauna, invertebrate, mortality, fish, dissolved oxygen

ABSTRACT: Infaunal invertebrate mortalities with a Gymnodium breve outbreak and fish kill were reported. The results indicated that the normal pre-red tide assemblage was essentially destroyed. Of the most abundant 22 original species, only 5 remained (the polychaetes Travisia, Scolelepis, and Laeonereis; the brachiopod Glottidia). All but Laeonereis were present in reduced numbers compared to before the outbreak. Subsequent sampling in September indicated that some species were still dying off. It was believed that not all invertebrate infaunal species are equally affected by the red tide toxins or anaerobiosis. Laboratory studies were determined to be needed to confirm the field observations reported and to determine whether the mortality recorded is caused directly by G. breve toxins or by the anaerobiosis accompanying the fish kill.

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ACC 2281; TYPE P; YEAR 1977
SIMON, J.L.; DAUER, D.M.;
REESTABLISHMENT OF A BENTHIC COMMUNITY FOLLOWING NATURAL DEFAUNATION.

BIBL BELLE W. BARUCH SYMP. MAR. SCI., 6TH, UNIV. SO. CAROLINA. 1977. ECOLOGY OF MARINE BENTHOS. P. 139-154.

KEYWORD: benthic, community, defaunation, infauna, polychaete, mollusc, crustacea, temperature, salinity, sediment

ABSTRACT: A general overview of the process of repopulation following a natural defaunation and a comparison of responses shown by different taxa of benthic infauna was presented. The fauna made a rapid recovery in terms of species numbers and composition, returning to much the same assemblage as prior to the red tide outbreak. Polychaetes were the most rapid colonists both in terms of the number of species and number of individuals. Molluscs and amphipods appeared later and also were significantly affected by seasonal patterns of reproduction, and thus dispersal. Only the polychaetes, other crustacea, and the total fauna showed species colonization patterns indicative of equilibrium.

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ACC 2035; TYPE P; YEAR 1966
SIMS, H.W., JR.;
THE FLORIDA SPINY LOBSTER.

BIBL FLA. BD. CONSERV. MAR. LAB., SALT WATER FISH. LEAFL. NO. 7. 5 P.

KEYWORD: distribution, spiny lobster, fishery, fishing gear, crustacea

ABSTRACT: This leaflet, intended for public distribution, is a general review of the Florida spiny lobster, Panulirus argus, and the spiny lobster fishery. P. argus and similar species in Florida waters are described and a brief history of the spiny lobster is given. The fishing gear and methods of the lobster industry are summarized and the possibility of future lobster cultivation is discussed.

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ACC 4329; TYPE P; YEAR 1978
SINCLAIR, P.C;
VORTEX STRUCTURE AND DYNAMICS OF FLORIDA KEYS WATERSPOUTS: 1974 FIELD EXPERIMENT.

BIBL FINAL REPT. FOR NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION. 107 P.

KEYWORD: model, meteorological

ABSTRACT: From direct penetrations of the waterspout funnel by specially instrumented aircraft, a quantitative description of the dynamic-thermodynamic structure of the waterspout has been developed. The Navier-Stokes equations of motion for the waterspout vortex are simplified by an extensive order of magnitude analysis of each term in the equations. The reduced set of equations provides a realistic mathematical model of the waterspout vortex. Further simplification shows that the cyclostrophic-Rankine combined vortex model accounts for, on the average, approximately 63% of the measured pressure drop from the environment to the waterspout core. The penetration measurements show that the waterspout funnel consists of a strong rotary and vertical field (radial component is smaller) of motion which results in a combined flow pattern similar to that of a helical vortex. In general, the measurements indicate that this one-cell vortex structure is the dominant configuration. The temperature and pressure structure show that the waterspout, like the dust devil, is a warm core, low pressure vortex.

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ACC 714; TYPE ; YEAR 1969
SKUD, B.E.; WILSON, W.B.;
ROLE OF ESTUARINE WATERS IN GULF FISHERIES.

BIBL TRANS., 25TH NORTH AM. WILDLIFE NAT. RESOUR. CONF. 25:320-326.

KEYWORD: biology, estuary, fishery, productivity

ABSTRACT: Not available.

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ACC 2036; TYPE P; YEAR 1958
SMITH, F.G.W.;
THE SPINY LOBSTER INDUSTRY OF FLORIDA.

BIBL FLA. BD. CONSERV. MAR. LAB., EDUC. SER. NO. 11. 34 P.

KEYWORD: spiny lobster, life history, habitat, migration, fishery, crustacea, socioeconomic

ABSTRACT: This review summarizes information on the spiny lobster, Panulirus argus, and the spiny lobster industry in Florida. A classification and description of P. argus is given and a key to the western Atlantic spiny lobsters is provided. The life history, habitat, migrations, and sexual characteristics of P. argus are summarized. The possibility of cultivating spiny lobsters and the fishing methods used in the industry are discussed. The economic value of the spiny lobster fishery in Florida is given and the regulations governing the fishery are presented.

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ACC 2138; TYPE P; YEAR 1954
SMITH, F.G.W.;
GULF OF MEXICO MADREPORARIA.

IN: GULF OF MEXICO, ITS ORIGIN, WATERS, AND MARINE LIFE.

BIBL FISH. BULL. U.S. 55(89):291-295.

KEYWORD: biology, distribution, growth, temperature, salinity, turbidity, currents, light, coral

ABSTRACT: The general biology of Madreporaria in the Gulf of Mexico is discussed. Features studied included distribution, growth rates, and limiting factors including temperature, salinity, turbidity, current velocity, and light intensity. Both hermatypic and ahermatypic corals are described. Species lists are given of both types of corals found in the Gulf of Mexico.

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ACC 2139; TYPE P; YEAR 1954
SMITH, F.G.W.;
BIOLOGY OF SPINY LOBSTER.

IN: GULF OF MEXICO, ITS ORIGIN, WATERS, AND MARINE LIFE.

BIBL FISH. BULL. U.S. 55(89):463-465.

KEYWORD: spiny lobster, biology, distribution, habitat, life history, migration, growth, food habit

ABSTRACT: The biology of Panulirus argus (in the Gulf of Mexico) is discussed. Several aspects of the distribution and the factors determining distribution are described. Other major categories that are discussed include sexual characters, habitat characteristics, food and enemies, breeding habits and life history, molting, migrations, and growth rates.

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ACC 2140; TYPE P; YEAR 1954
SMITH, F.G.W.;
BIOLOGY OF THE COMMERCIAL SPONGES.

IN: GULF OF MEXICO, ITS ORIGIN, WATERS, AND MARINE LIFE.

BIBL FISH. BULL. U.S. 55(89):263-266.

KEYWORD: biology, sponge, reproduction, development, morphology, physiology, distribution, community

ABSTRACT: General aspects of the biology of sponges found in Gulf of Mexico waters are described. Discussion includes reproduction, development, morphology, physiology, distribution, and roles in the community. Particulars of each area of discussion are drawn from work by other researchers.

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ACC 2141; TYPE P; YEAR 1978
SMITH, G.;
ECOLOGY AND DISTRIBUTION OF MID-EASTERN GULF OF MEXICO REEF FISHES.

BIBL PH.D. DISSERTATION. UNIVERSITY OF SOUTHERN FLORIDA.

KEYWORD: ecology, distribution, reeffish, ichthyofauna, seasonality, diversity, red tide, model

ABSTRACT: A study of reef fish in the eastern Gulf of Mexico between May 1970 and August 1976 yielded 102 species, representing 38 families. The ichthyofauna of the eastern Gulf was compared with those of the western Gulf and western Atlantic. Spatial trends in species composition and abundance were cited. Seasonal variations in diversity and abundance were limited, except during a dinoflagellate bloom (red tide) which occurred in the summer of 1971. Reef fish colonization data were analyzed for applicability to the MacArthur-Wilson species equilibrium model developed for insular biotas.

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ACC 2142; TYPE P; YEAR 1976
SMITH, G.B.;
ECOLOGY AND DISTRIBUTION OF EASTERN GULF OF MEXICO REEF FISHES.

BIBL FLA. DEPT. NAT. RESOUR. MAR. RES. LAB. PUBL. 19. 78 P.

KEYWORD: ecology, distribution, reeffish, ichthyofauna

ABSTRACT: One hundred one reef fish species representing 38 families were collected and/or observed at 12-40 m depths in the eastern Gulf of Mexico. Comparisons of the eastern Gulf and other western Atlantic ichthyofaunas revealed greater intra-Gulf homogeneity and Caribbean-West Indian affinity than previously suspected. Preliminary observations at the Florida Middle Ground indicate a diverse and abundant resident tropical ichthyofauna including numerous insular (West Indian) elements rare or absent at other studied Gulf reefs.

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ACC 2282; TYPE P; YEAR 1983
SMITH, S.J.; SCHUSTER, B; BROS, W.E.;
COMPARISON OF TWO SAMPLING TECHNIQUES FOR FOULING COMMUNITY STUDIES.

BIBL FLA. SCI. 46(SUPPL. 1):21.

KEYWORD: fouling, fauna

ABSTRACT: Quadrant and point sampling methods were compared in their estimation of percent cover and species richness of fouling communities. The quadrant sampling technique was found to determine species richness more accurately than the point sampling method. Species richness was determined for total organisms and for 3 subgroups based on motility; motile,

sessile, and semi-sessile. Both methods were compared to a planimetric control for estimates of percent cover for sessile species.

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ACC 2314; TYPE P; YEAR 1975
SMITH, G.B.;
RED TIDE AND ITS IMPACT ON CERTAIN REEF COMMUNITIES IN THE MID EASTERN GULF OF MEXICO.

BIBL ENVIRON. LETT. 9(2):141-152

KEYWORD: Sarasota, red tide, reef, community, seasonality, recruitment

ABSTRACT: An investigation was made of the effect of the 1971 red tide to reef communities off Sarosota, Florida. Under appropriate environmental conditions, local extinctions may occur due to the effects of red tide. Some groups recolonize quickly, while others may take several years. Seasonal progression and succession may temporarily result in floral and faunal communities quite different from those prior to the red tide. It is suggested that the periodic occurrence of red tide may prevent the evolution of an equilibrium reef community.

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ACC 4134; TYPE P; YEAR 1979
SMITH, G.B.;
RELATIONSHIP OF EASTERN GULF OF MEXICO REEF-FISH COMMUNITIES TO THE SPECIES EQUILIBRIUM THEORY OF ISLAND BIOGEOGRAPHY.

BIBL J. BIOGEOGR. 6:49-61.

KEYWORD: biology, ecology, red tide, reef, reeffish, live bottom, fish, biogeography, benthic

ABSTRACT: A 1971 summer red tide (Gymnodinium breve Davis) and associated stress conditions resulted in mass mortalities and near extirpation of reef biotas from at least 1536 km square of central West Florida Shelf. An estimated 77% of the recent fish species perished at shallow-water (12-18 m depths) reefs. Reef-fish colonization was monitored irregularly (1-6 month intervals) at two reefs for 3 years after the red tide. In addition, species censuses were taken 4 years after defaunation at one reef and 5 years later at both reefs. Since eastern Gulf of Mexico reefs occur as isolated patches, reef-fish colonization data were analyzed in light of MacArthur and Wilson's species equilibrium model developed for insular biotas. Certain features of reef-fish colonization appeared consistent with the MacArthur-Wilson model: (1) an increasing convex colonization curve, (2) an observed immigration (colonization) rate decreasing with time, (3) differences between colonization and decolonization (observed extinction) rate decreasing through time, and (4) attainment and maintenance of a rather stable species richness after 15 months colonization similar to the pre-defaunation level. However, other aspects of reef-fish colonization did not seemingly fulfill basic requirements of the model: (1) an erratic decolonization rate indicating no tendency to increase through time, (2) an observed species turnover rate considerably less than theoretical predictions, and (3) development of a compositionally stable community nearly identical with that existing prior to the red tide.

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ACC 4135; TYPE U; YEAR 1979
SMITH, M.W.; HUNT, J. L.;
MARQUESAS KEY WELL SITE SURVEY REPORT.

BIBL U.S. DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT, NEW ORLEANS OCS OFFICE. 37 P.

KEYWORD: oil exploration, drilling impact, drill cutting, offshore drilling, reef, drilling mud, seagrass, algae, artificial habitat

ABSTRACT: An exploratory drill site off Marquesas Key, Florida, was inspected by diving scientists on 17 and 16 May 1979 to determine if any significant environmental alterations had occurred due to recent well drilling and attendant activities. The drill site was elevated three or four feet relative to the surrounding bottom and appeared as a white sand patch. Hauled-in fill rock contributed to the drill pad elevation. The drill site was covered by seagrasses and macroalgae. A pile of 106 concrete sacks found near the drillsite attracted a variety of reef fishes. Sediment samples from near the drill site did not reveal elevated barium concentrations. Oceanographic and substrate factors, not toxic agents, prohibited the development of a reef-type community on the drill pad. Debris, including a drill bit were strewn about the drill site.

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ACC 4136; TYPE P; YEAR 1974
SMITH, R.E., ED.;
PROCEEDINGS OF MARINE ENVIRONMENTAL IMPLICATIONS OF OFFSHORE DRILLING IN THE EASTERN GULF OF MEXICO, CONFERENCE/WORKSHOP.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: oil exploration, oil and gas, physical, oceanography, chemistry, geology, biology, baseline study

ABSTRACT: A conference was conducted during January-February 1974 in response to impending oil and gas exploration activities in the eastern Gulf of Mexico. This volume contains the proceedings of the conference, including papers describing baseline, physical, chemical, geological, and biological conditions in the area and a set of statements prepared for the proceedings by various agency representatives and interested parties.

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ACC 2530; TYPE P; YEAR 1976
SNEDAKER, S.C.; BROOK, I.M.;
ECOLOGY AND THE FOOD WEB OF BISCAYNE BAY.

IN: BISCAYNE BAY; PAST/PRESENT/FUTURE. PAPERS PRESENTED FOR BISCAYNE BAY SYMPOSIUM 1.

BIBL UNIV. MIAMI SEA GRANT SPEC. REPT. NO. 5, P. 227-233.

KEYWORD: Dade, ecology, seagrass, crustacean, stone crab, primary production, pink shrimp, estuary

ABSTRACT: A review concerning the ecology and food web relationships in Biscayne Bay revealed that relatively few studies describe the interactions between organisms and their environment. Biscayne Bay was described to be highly productive, with 43.8% of the bay bottom being covered with nutrient contributing seagrasses. Other forms of primary production, as well as the detrital input from the fringing mangroves, contribute to a broad base for higher level consumers such as game fishes, commercial crustacean species, including the stone crab (Menippe mercenaria) and pink shrimp (Penaeus spp.)

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ACC 2143; TYPE P; YEAR 1981
SOCCI, A.; DINKELMAN, M.G.;
SEDIMENTS AND SEDIMENTATION IN THE GULF OF MEXICO--A REVIEW. IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO, KEY BISCAYNE, FLA., 30 SEPT.-5 OCT. 1979. D.K. ATWOOD (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LAB., MIAMI, FLA. VOL. IIC, P. 33-101.

KEYWORD: sediment, geochemistry

ABSTRACT: This summary paper reviews the state of knowledge on the geographic setting, sediments, geochemistry and animal-sediment relationships in the Gulf of Mexico. An extensive reference list accompanies the paper. Scarcity of available data is noted and several recommendations for future studies in the Gulf of Mexico are provided.

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ACC 4241; TYPE P; YEAR 1976
SONNIER, F.; TEERLING, J.; HOESSE, H.D.;
OBSERVATIONS ON THE OFFSHORE REEF AND PLATFORM FISH FAUNA OF LOUISIANA USA

BIBL COPEIA 1976(1):105-111.

KEYWORD: reef, fish, artificial reef, offshore platform

ABSTRACT: Observations, photographs and collections of fishes on the western reefs of the outer Louisiana (USA) continental shelf and around oil platforms have verified the presence of an extensive tropical fish fauna. Of 105 spp. recorded, about 50% were tropical species either unreported or rarely reported from the NW Gulf of Mexico. Reefs contained more species than oil platforms, although a number were common to both, and 12 spp. were found only around platforms. The 67 spp. of fishes found at the deeper reefs were all typical Caribbean-West Indian forms.

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ACC 77; TYPE ; YEAR 1971
SONU, C.J.; MURRAY, S.P.; SMITH, W.G.;
ENVIRONMENTAL FACTORS CONTROLLING THE SPREAD OF OIL.

BIBL NAV. RES. REV. 24(8):11-19.

KEYWORD: ecology, hydrography, meteorology, oceanography, oil slick, oil spill, physical process, pollution, currents, wind

ABSTRACT: Increasing oil spill incidents in recent years have generated considerable interest among the scientific community in the little-known mechanics of the spread of oil on water. The unpredictability of the timing of this type of incident has provided few situations in which field investigations could be readied in time for detailed in situ studies of air-sea-oil interaction. While the Coastal Studies Institute, Louisiana State University, under contract to the Office of Naval Research, is not primarily involved in studies of pollution, it is interested in the dynamics of air-sea interaction and the behavior of

currents in the water column. The oil spill provided the opportunity to measure these phenomena on a large scale. In response to requests from the Coast Guard and with approval of the Geography Programs of ONR, the Institute was able to send an experienced team of investigators to the site of the Chevron oil spill in the Gulf of Mexico. The team monitored oil diffusion in response to atmospheric and hydrologic conditions present at the time. Excerpts from the team's finding are summarized here., When Chevron production platform MP41C, in the Mississippi Delta, caught fire on February 10, 1970, the stage was set for a major spill which would involve as much as 1,000 barrels a day after the fire was extinguished. The well field lay only several miles from the Breton and Delta National Wildlife refuges and about 8 nautical miles from the nearest shore. Two field studies were carried out, one between March 5 and 11 and the other between March 15 and 21.

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ACC 887; TYPE ; YEAR 1972
SOTO, L.A.;
DECAPOD SHELF FAUNA OF THE NORTHEASTERN GULF OF MEXICO -- DISTRIBUTION AND ZOOGEOGRAPHY.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL. 129 P.

KEYWORD: benthic fauna, sediment, salinity, temperature, depth, zoogeography, decapod

ABSTRACT: The distribution and zoogeography of the decapod fauna of the continental shelf of the northeastern Gulf of Mexico was studied by sampling 108 stations on 14 cruises of the R/V Tursiops from October, 1970 to October, 1971. Specimens were identified, sexed and counted. Associated data includes temperature, salinity, depth and bottom type.

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ACC 2179; TYPE P; YEAR 1978
SOTO, L.A.;
FAUNISTIC STUDY OF THE DEEP WATER CRABS OF THE STRAITS OF FLORIDA (DECAPODA: BRACHYURA).

BIBL PH.D. DISSERTATION. UNIVERSITY OF MIAMI, MIAMI, FL.

keyword: zoogeography, crab, distribution, temperature, depth, substrate

ABSTRACT: Benthic trawl collections from the Straits of Florida between 1962 and 1972 were used in an ecological and zoogeographical study of deep water brachyuran crabs. Sixteen families were represented by 87 brachyuran species, 6 recorded for the first time. The horizontal and vertical distribution of the brachyuran fauna was related to water temperature, depth, and substrate type. Four distributional patterns in the straits were identified. The zoogeography, origin, and paleogeography of deep water brachyurans are discussed.

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ACC 26; TYPE ; YEAR 1981
SOUTHWEST RESEARCH INSTITUTE;
ECOLOGICAL INVESTIGATIONS OF PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO. VOLUME I. POLLUTANT FATE AND EFFECTS STUDY.

BIBL BUREAU OF LAND MANAGEMENT, GULF OF MEXICO OCS REGIONAL OFFICE, NEW ORLEANS, LA. 223 PP.

KEYWORD: continental shelf, hydrocarbon, hydrography, macrofauna, oil, trace metal, meiofauna, infauna, epifauna, demersal fish, pollution

ABSTRACT: Twenty-four sites on the continental shelf of the Louisiana coast have been studied for long-term cumulative effects of petroleum production in the region of offshore platforms. Four primary study platforms and four control sites were visited in May, 1978, August/September, 1978 and January 1979. Sixteen secondary platforms were sampled August/September, 1978. Sampling and analysis included hydrography and hydrocarbons of the water column; sediment physical characterization, hydrocarbons, trace metals, and contamination with depth; and populations of the meiofauna, macroinfauna, macroepifauna, demersal fishes and species associated with "artificial reefs" brought about by the platform. Bottom studies extended from 100 to 2000 m away from platforms and were therefore indicative of regional as opposed to localized contamination. Sites were located from 5 km (3 mi) to 115 km (73 mi) from shore and extended from the west shore of the Mississippi delta (89o32'W) to a line south of Marsh Island (91o44W). Results confirm widespread, chronic contamination with hydrocarbons and metals with some apparent incorporation of pollutants into biota found at platforms. Over the entire study area absolute amounts of contaminants vary widely showing a general concentration in the nearshore and eastern portions where the Mississippi River apparently contributes more contaminants than petroleum production platforms. Platforms vary widely in the types and amounts of pollutants traced to them. A distinctive pattern of expected contamination with platform operating type is not seen.

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ACC 2331; TYPE P; YEAR 1978
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT;
SUMMARY OF REPT.: SOUTHWEST FLA. WATER MNGT. DIST. CONSUMPTIVE USE PERMIT TO GEN. DEV. UTILITIES, INC., FOR PEACE RIVER REG. WATER TREATMENT PLANT.

BIBL

KEYWORD: Charlotte, primary production, benthic, infauna, shrimp, crab, fish, salinity, DO, predation

ABSTRACT: Studies from Boca Grande Pass to the nontidal portion of the Peace River were initiated to collect data concerning influence of river flow on the ecosystems in Charlotte Harbor. Increased river flow during the wet season was determined to result in

vertical salinity stratification of the harbor water column, and also in lowered salinity levels in Charlotte Harbor. Vertical stratification reduced mixing and gradual depletion of DO occurred in bottom waters. Primary production in surface layers was found to be stimulated by enrichment with essential nutrients from increased flows. Benthic infauna flourished on the increased food supply (provided in part by photosynthesis in the surface layers), and benefitted from reduced predation. Mobile predators are forced by decreased dissolved oxygen and salinity levels to leave the stratified part of the harbor. In the fall when decreased river flow and higher surface winds cause vertical mixing and increased bottom oxygen, mobile-predators, such as juvenile shrimp, crabs, and fish were noted to move into the upper harbor to feed upon the abundant benthic food supply that developed during the preceding period of stratification.

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ACC 4137; TYPE P; YEAR 1985
SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL;
SOURCE DOCUMENT FOR THE SWORDFISH FISHERY MANAGEMENT PLAN.

BIBL SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL, CHARLESTON, SC. 87 PP.

KEYWORD: biology, management, billfish, commercial fish, recreational fishery, landings (pounds)

ABSTRACT: The Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.) gives responsibility to the Regional Fishery Management Councils to prepare and submit fishery management plans for fisheries within their geographical area. The South Atlantic, New England, Mid-Atlantic, Gulf of Mexico and Caribbean Fishery Management Councils, in accordance with their legislative mandate, are preparing a joint plan for the swordfish fishery. This source document contains the detailed scientific, technical and other supportive documentation on which the Fishery Management Plan for Swordfish is based.

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ACC 4138; TYPE P; YEAR 1983
SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL;
OUTER CONTINENTAL SHELF ONSHORE FACILITIES SITING STUDY.

BIBL SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL, FORT MYERS, FL. 61 P

KEYWORD: oil and gas, socioeconomic, offshore

ABSTRACT: A study was conducted to evaluate the need and possible locations for onshore facilities for offshore oil and gas development off southwestern Florida. The study was conducted by the Southwest Florida Regional Planning Council, one of eleven such agencies in Florida that advise and coordinate constituent local governments in regional, metropolitan, county, and municipal planning matters such as land use, water resources, and transportation. Four scenarios were evaluated. Under the "no strike" and "low-volume strike" scenarios, no onshore facilities would be required. Under a "mean volume strike" scenario, onshore facilities might include two pipeline landfalls, a marine terminal, and other, perhaps temporary support facilities. Under a "maximum strike" scenario, onshore facilities might include a permanent service base for development/production activities, a temporary service base for exploratory activities, a repair and maintenance yard, two pipeline landfalls, one or two marine terminals, other general support services, and perhaps a pipe-coating yard. The "no strike" or "low-volume strike" scenarios are the most likely outcomes of current offshore exploratory activities. Three potential sites for onshore facilities were evaluated: San Carlos Island, Port Boca Grande, and the Caloosahatchee River. The first two sites were judged to have potential as onshore support bases, but only to a limited degree. Neither site would be suitable for large-scale development associated with a major oil strike.

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ACC 4302; TYPE P; YEAR 1981
SOUTHWEST RESEARCH INSTITUTE;
ECOLOGICAL INVESTIGATIONS OF PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO: VOLUME III, EXECUTIVE SUMMARY.

BIBL FINAL REPT. BUREAU OF LAND MANAGEMENT. NO. BLM-YM-P/T-01-018-3331. 36 P.

KEYWORD: continental shelf, hydrography, hydrocarbon, water column, sediment, physical, trace metal, fish, artificial reef

ABSTRACT: Twenty-four sites on the continental shelf of the Louisiana coast have been studied for long-term cumulative efforts of petroleum production in the region of offshore platforms. Sampling and analysis included hydrography and hydrocarbons of the water column; sediment physical characterization, hydrocarbons, trace metals, and contamination with depth; and populations of the fauna, demersal fishes and species associated with the "artificial reef" brought about by the platform. This report presents a concise summary of the study.

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ACC 4303; TYPE P; YEAR 1981
SOUTHWEST RESEARCH INSTITUTE;
ECOLOGICAL INVESTIGATIONS OF PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO: VOLUME I, PART 8.

BIBL FINAL REPT. BUREAU OF LAND MANAGEMENT. NO. BLM-YM-P/T-01-018-3331. 840 P.

KEYWORD: continental shelf, hydrography, water column, sediment, hydrocarbon, trace metal, fish, artificial reef

ABSTRACT: This part of the report on Ecological Investigations of Petroleum Production Platforms in the Central Gulf of Mexico contains the data summaries of all information gathered during the study. Twenty-four sites on the continental shelf of the Louisiana coast have been studied for longterm cumulative efforts of petroleum production in the region of offshore platforms. Sampling and analysis included hydrography and hydrocarbons of the water column; sediment physical characterization, hydrocarbons, trace metals and contamination with depth; and populations of fauna and demersal fishes and species associated with the "artificial reef" brought about by the platform.

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ACC 4304; TYPE P; YEAR 1981
SOUTHWEST RESEARCH INSTITUTE;
ECOLOGICAL INVESTIGATIONS OF PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO: VOLUME I, PARTS 6 AND 7.

BIBL FINAL REPT. BUREAU OF LAND MANAGEMENT. NO. BLM-YM-P/T-01-018-3331. 522 P.

KEYWORD: continental shelf, benthic, biology

ABSTRACT: Twenty-four sites on the continental shelf of the Louisiana coast have been studied for long-term cumulative efforts of petroleum production in the region of offshore platforms. Four primary study platforms and four control sites were visited in May 1978, August/September, 1978, and January 1979. Sixteen secondary platforms were sampled August/September 1978. This volume presents the findings of the benthic biology/histology study efforts.

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ACC 4305; TYPE P; YEAR 1981
SOUTHWEST RESEARCH INSTITUTE;
ECOLOGICAL INVESTIGATIONS OF PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO: VOLUME I, PART 4 AND 5.

BIBL FINAL REPT. BUREAU OF LAND MANAGEMENT. NO. BLM-YM-P/T-01-018-3331. 210 P.

KEYWORD: continental shelf, trace metal

ABSTRACT: Twenty-four sites on the continental shelf of the Louisiana coast have been studied for long-term cumulative efforts of petroleum production in the region of offshore platforms. Four primary study platforms and four control sites were visited in May 1978, August/September 1978, and January 1979. Sixteen secondary platforms were sampled August/September 1978. This volume presents the findings of the trace metal and microbiological study efforts.

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ACC 4306; TYPE P; YEAR 1981
SOUTHWEST RESEARCH INSTITUTE;
ECOLOGICAL INVESTIGATIONS OF PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO: VOLUME I, PART 1, 2, AND 3.

BIBL FINAL REPT. BUREAU OF LAND MANAGEMENT. NO. BLM-YM-P/T-01-018-3331. 218 P.

KEYWORD: hydrography, hydrocarbon, water column, sediment, physical, trace metal, fish, artificial reef

ABSTRACT: Twenty-four sites on the continental shelf of the Louisiana coast have been studied for long-term cumulative efforts of petroleum production in the region of offshore platforms. Four primary study platforms and four control sites were visited in May 1978, August/September 1978, and January 1979. Sixteen secondary platforms were sampled August/September 1978. Sampling and analysis included hydrography and hydrocarbons of the water column; sediment physical characterization, hydrocarbons, trace metals, and contamination with depth; and populations of the fauna and demersal fishes and species associated with the "artificial reef" brought about by the platform. Bottom studies extended from 100 to 2000 m away from platforms and were therefore indicative of regional as opposed to localized contamination.

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ACC 684; TYPE ; YEAR 1984
SPORT FISHING INSTITUTE;
THE MARINE RECREATIONAL FISHING INDUSTRY AND OPPORTUNITIES FOR DEVELOPMENT. FINAL REPORT PHASE II.

BIBL SPORT FISHING INSTITUTE, WASHINGTON, D.C. 83 PP.

KEYWORD: development, fishing industry, recreation, socioeconomic, sport fishing, recreational fishery

ABSTRACT: Not available.

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ACC 807; TYPE; YEAR 1983
SPORT FISHING INSTITUTE;
ECONOMIC ACTIVITY ASSOCIATED WITH MARINE RECREATIONAL FISHING IN 1980, PREPARED FOR THE NATIONAL MARINE FISHERIES SERVICE.

BIBL SPORT FISHING INSTITUTE, WASHINGTON, D.C. 171 PP.

KEYWORD: recreation, socioeconomic, sport fishing, recreational fishing

ABSTRACT: The purpose of this study was to estimate the economic activity associated with marine recreational fishing in 1980. The specific goals of the project were the following: (1) Determine the value of goods and services purchased by recreational fishermen in association with saltwater sportfishing during 1980; (2) Determine the value added, employment, wages and salaries, and capital expenditures associated with purchases by marine recreational fishermen in 1980; (3) Determine the number of establishments in the individual economic sectors serving marine recreational fishermen; (4) Project the multiplier effects of expenditures for saltwater sportfishing as determined using input-output analysis;(5) Document the distribution of the national economic impacts associated with saltwater sportfishing for the various coastal states under the jurisdictions of the regional Fishery Management Councils. This report follows a similar 1977 study by Centaur Associates where the economic activity associated with marine recreational fishing in 1972 and 1975 was estimated.

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ACC 2475; TYPE P; YEAR 1962
SPRINGER, V.G.; MCERLEAN, A.J.;
SEASONALITY OF FISHES ON A SOUTH FLORIDA SHORE.

BIBL BULL. MAR. SCI. GULF CARIBB. 12:39-60.

KEYWORD: Monroe, seasonality, fish, temperature

ABSTRACT: Monthly collections on a grassy shore on Matecumbe Key, Florida Keys, were made from March 1960 through February 1961 with a 100 foot bag seine with three-eighths inch mesh. On hundred and six species of fishes were taken. Number of species and specimens were greatest during summer and fall. Approximately one third of the species were represented only by young.

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ACC 4222; TYPE P; YEAR 1975
STAFFORD, J.W.;
ENVIRONMENTAL IMPACTS OF OCS OIL AND GAS ACTIVITY.

BIBL IN: FLA. COASTAL POLICY STUDY: THE IMPACT OF OFFSHORE OIL DEVELOPMENT. 131-162.

KEYWORD: drilling, physical, geophysical, pollution, oil spill, fishery, exploration

ABSTRACT: Development of outer continental shelf oil and gas fields involves geophysical exploration, exploratory drilling, production, transportation, storage and processing. Each of these activities has environmental impacts associated with it. The impacts on the physical environment are usually negligible during geophysical exploration. However, the impacts associated with the various other phases of oil and gas activities can be very significant. The Department of Interior lists eight impact-producing factors and ten impact-sustaining factors resulting from OCS operations. In anticipation of possible discoveries of major oil and gas deposits in the eastern Gulf of Mexico off the Florida coast each of these impact-producing and impact-sustaining factors should be considered. Certain aspects of oil and gas operations can cause adverse environmental effects which may be considered unavoidable with current operation practices, technology and regulations. Included in this category are the environmental effects on air and water quality, marine organisms, wetlands, beaches, and aesthetic values; damage to historical and archaeological sites, structures and objects; interference with commercial fishing operations and ship navigation, and conflict with other uses of land.

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ACC 2476; TYPE P; YEAR 1970
STAIGER, J.C.;
THE DISTRIBUTION OF BENTHIC FISHES FOUND BELOW TWO HUNDRED METERS IN THE STRAITS OF FLORIDA.

BIBL PH.D. DISSERTATION. UNIVERSITY OF MIAMI.

KEYWORD: Monroe, benthic, fish, distribution

ABSTRACT: Over 5,200 specimens were collected from below 200 meters in the Straits of Florida and were determined to represent 189 species of 58 families of fishes. Most of these specimens were obtained from 477 bottom trawl stations. Six distributional patterns were found to exist among the Straits of Florida benthic fishes. The occurrence of the species were compared using the Recurrent Groups Analysis method developed by Fager.

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ACC 4320; TYPE P; YEAR 1971
STARCK, W.A., II;
BIOLOGY OF THE GRAY SNAPPER, LUTJANUS GRISEUS (LINNAEUS), IN THE FLORIDA KEYS. II. HABITAT; TOLERANCE TO TEMPERATURE AND SALINITY; PREDATORS; PARASITES; DISEASES AND MALFORMATIONS; ABUNDANCE.

BIBL UNKNOWN. PP. 24-39.

KEYWORD: snapper, temperature, salinity, habitat, predation, parasites

ABSTRACT: Not available.

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ACC 307; TYPE ; YEAR 1975
STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY;
COMPILATION AND SUMMATION OF HISTORICAL AND EXISTING PHYSICAL OCEANOGRAPHIC DATA FROM THE EASTERN GULF OF MEXICO IN SUPPORT OF THE MAFLA SAMPLING PROGRAM.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-75-1. 292 PP.

KEYWORD: biology, circulation, currents, fishery, geology, infrared imagery, loop current, meteorology, continental shelf, physical, remote sensing, MAFLA

ABSTRACT: Physical oceanography has a dual role in determining the environmental implications of development of the Outer Continental Shelf (OCS). It is intrinsically important to determine physical parameters to predict dispersion of materials in OCS waters, but the role of physical oceanography is equally important in the support it must give to other oceanographic disciplines. In fact, it is highly unlikely that meaningful interpretations of biogeochemical data, or the ecosystem structure can be made without adequate knowledge of the advective field, for instance. Cognizant of the importance of understanding the circulation of the eastern Gulf of Mexico, the Bureau of Land Management (BLM) commissioned a group of oceanographers familiar with the area: (a) to "assemble the historical and contemporary physical and associated meteorological data of the northeast Gulf of Mexico...for submission to the National Oceanographic Data Center (NODC)"; (b) to "construct a zero-order synthesis of oceanographic conditions in the northeast Gulf of Mexico and have them graphically displayed"; (c) to "describe the general circulation and oceanographic conditions on the continental shelf area of the northeast Gulf of Mexico and in the Loop Current of the deeper Gulf areas"; (d) to "describe qualitatively the interaction between the shelf circulation of the northeast Gulf of Mexico and the Loop Current"; (e) to "describe the seasonal distribution of the intensity of fish spawning and zooplankton productivity on the western Florida continental shelf and relate these to temperature and salinity data"; (f) to "develop a first-order understanding of th...

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ACC 308; TYPE ; YEAR 1975
STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY;
COMPILATION AND SUMMATION OF HISTORICAL AND EXISTING PHYSICAL OCEANOGRAPHIC DATA FROM THE EASTERN GULF OF MEXICO IN SUPPORT OF THE MAFLA SAMPLING PROGRAM.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YM/ES-75-1. 292 PP

KEYWORD: biology, circulation, currents, fishery, geology, infrared imagery, loop current, meteorology, continental shelf, physical, MAFLA, remote sensing

ABSTRACT: A group of oceanographers were commissioned to compile and summarize meteorological data, raw data, describe the eastern Gulf circulation including the Loop Current and the interaction with the shelf, describe the intensity of fish spawning and zooplankton and make recommendations for future biological, chemical and physical oceanography investigations. The report is a summary of statements of the group's individual and/or collective thoughts on the objectives.

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ACC 309; TYPE ; YEAR 1978
STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY;
BASELINE ENVIRONMENTAL SURVEY OF THE MAFLA LEASE AREAS.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. BLM/YN/SR-78/02. 201 PP.

KEYWORD: invertebrata, biology, carbonate, geology, hydrocarbon, oceanography, continental shelf, physical process, plankton, sediment, MAFLA

ABSTRACT: The Bureau of Land Management deemed it necessary to conduct a baseline environmental survey on the MAFLA shelf of the eastern Gulf of Mexico, extending from approximately 89 degrees W, south to Pascagoula, Mississippi, to a tract west of Clearwater, off Tampa Bay, Florida. This task included designing and conducting a field sampling program for geological, biological, chemical, and physical oceanographic samples; analysis of samples, including establishment of analytical quality control procedures; archiving of samples for future analysis; development of data management procedures; and a comprehensive final report.

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ACC 4240; TYPE P; YEAR 1976
STEELE, P.; COLLARD, S.B.;
NEUSTON COMMUNITIES OF THE EASTERN GULF OF MEXICO CONTINENTAL SHELF.

BIBL FLA. SCI. 39(SUPPL.):2.

KEYWORD: neuston, community, temperature, algae

ABSTRACT: Not available.

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ACC 2180; TYPE P; YEAR 1977
STEINKER, D.C.;
FORAMINIFERAL STUDIES IN TROPICAL CARBONATE ENVIRONMENTS - SOUTH FLORIDA AND BAHAMAS.

BIBL FLA. SCI. 40(1):46-61.

KEYWORD: foraminifera, carbonate, wave, currents, distribution

ABSTRACT: This paper reviews studies on the distribution of foraminifera in carbonate sediments of the south Florida-Bahama region and proposes improved methods for further investigations. It is suggested that rose bengal stain is an unreliable indicator of living specimens and that direct observation should be used to distinguish between live and dead foraminifers. Living populations are more abundant on marine vegetation than in the sediments of the area. Those populations associated with sediments generally are sorted by waves and currents and therefore do not accurately reflect the biocoenosis of an area. It is suggested that foraminifera investigations should be more biologically oriented in order to better understand conditions of their natural habitat.

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ACC 4139; TYPE P; YEAR 1973
STEIDINGER, K.A;
PHYTOPLANKTON ECOLOGY: A CONCEPTUAL REVIEW BASED ON EASTERN GULF OF MEXICO RESEARCH.

BIBL CRIT. REV. MICROBIOL. 3(1):49-68.

KEYWORD: phytoplankton, primary production, red tide, ecology, water column, seasonality

ABSTRACT: The ecology of marine phytoplankton is reviewed on the basis of data from the eastern Gulf of Mexico. Topics covered include methodology for measuring standing stock and productivity; zonation of phytoplankton diversity, standing stock, and productivity; seasonality; and the phenomenon of re tides.

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ACC 4140; TYPE P; YEAR 1973
STEIDINGER, K.A.; JOYCE, E.A., JR.;
FLORIDA RED TIDES.

BIBL MAR. RES. LAB., FLA. DEPT. NAT. RES. ED. SER. 17. 26 P.

KEYWORD: red tide, coastal, ecology, fish, phytoplankton, biology

ABSTRACT: The first documented fish kill associated with discolored seawater in Florida occurred in 1844 but the causative organism, Gymnodinium breve, was not identified until 1948. Red tides and research results over the last 20 years are discussed and summarized. Red tide is a natural occurrence. Control is not presently feasible and may not be ecologically advisable even if available. Present research is directed toward a better understanding of red tides and their effects.

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ACC 2368; TYPE P; YEAR 1976
STELLER, D.L;
FACTORS AFFECTING THE SURVIVAL OF TRANSPLANTED THALASSIA TESTUDINUM.

BIBL PROC. OF THE THIRD ANNU. CONF. ON RESTORATION OF COAST. VEGETATION IN FLA. P. 2.22.

KEYWORD: Collier, seagrass, temperature, depth, currents, sediment

ABSTRACT: Transplantation of Thalassia testudinum around Marco Island from July 1975 through January 1976 showed that minimum temperature and depth played the greatest role in determining percent survival. Transplant plots varied in temperature, depth, current conditions, and sediment types. The transplanting method was deemed unuseful on a large scale because it is too labor intensive and too destructible [sic] to the parent grassbeds.

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ACC 2477; TYPE P; YEAR 1950
STEPHENSON, T.A.; STEPHENSON, A.;
LIFE BETWEEN TIDE MARKS IN NORTH AMERICA. I. THE FLORIDA KEYS.

BIBL J. ECOL. 38(2):354-402.

KEYWORD: Monroe, physical, chemical, biological, ecology, geographical, flora, fauna

ABSTRACT: A broad study was made of the physical, chemical, and biological aspects of the intertidal zone in the Florida Keys area. Zonation, ecology, and geographical relations of the common fauna and flora were determined. The intertidal flora and fauna are tropical; distinct from temperate flora and fauna.

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ACC 853; TYPE ; YEAR 1973
STEVENSON, W.H.; PASTULA, E.J.;
INVESTIGATION USING DATA FROM ERTS-1 TO DEVELOP AND IMPLEMENT UTILIZATION OF LIVING MARINE RESOURCES.

BIBL NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.

KEYWORD: air temperature, bathymetry, chlorophyll, currents, photograph, relative humidity, salinity, wind direction, water temperature, wind speed, remote sensing, satellite

ABSTRACT: Beginning in June, 1972 a 15 month ERTS-1 investigation was conducted to investigate correlations between satellite, aircraft, menhaden fisheries and environmental sea truth data from the Mississippi Sound. Selected oceanographic and meteorological parameters were used as indirect indicators of the resource. The surface area and location of menhaden schools are reported from areal photography. The environmental parameters chosen were based on: 1) the probability of demonstrating a relationship between the fishery and its environment and 2) those capable of being measured through remote sensing.

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ACC 1071; TYPE ; YEAR 1978
STEVENSON, J.C.; CONFER, N.M.;
SUMMARY OF AVAILABLE INFORMATION ON CHESAPEAKE BAY SUBMERGED VEGETATION.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWLSOBS-78/66.

KEYWORD: biology, herbicide, pesticide, pollution, flora

ABSTRACT: Not available.

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ACC 431; TYPE ; YEAR 1982
STICKNEY, R.R.; CUENCO, M.L.;
HABITAT SUITABILITY INDEX MODELS: JUVENILE SPOT.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS-OBS-82-10-20. 12 PP.

KEYWORD: biology, ecology, fish, management, resource, habitat, life history, model, fishery

ABSTRACT: Not available.

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ACC 741; TYPE ; YEAR 1966
STIEGLITZ, W.O.;
UTILIZATION OF AVAILABLE FOODS BY DIVING DUCKS ON APALACHEE BAY, FL. PAGES 42-50 IN PROCEEDINGS 20TH ANNUAL CONFERENCES, SOUTHEASTERN ASSOCIATION OF GAME AND FISH COMMISSIONERS.

BIBL LOUISIANA WILDLIFE AND ASSOCIATION OF GAME AND FISH COMMISSIONERS.

KEYWORD: aves, biology, ecology, feeding habit, bird

ABSTRACT: A study was designed to determine the vegetative composition and production of that portion of Apalachee Bay, Florida included within the St. Marks National Wildlife Refuge. The study was conducted in 1964. Gizzards and gullets of 14 diving ducks were collected to correlate feeding activities with available food.

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ACC 2478; TYPE P; YEAR 1967
STOCKMAN, K.W.; GINSBURG, R.N.; SHINN, E.A.;
THE PRODUCTION OF LIME MUD BY ALGAE IN SOUTH FLORIDA.

BIBL J. SEDIMENT. PETROL. 37(2):633-648.

KEYWORD: Monroe, algae, mollusc, coral, transport, sediment

ABSTRACT: Comparison of the annual production of fine aragonite mud (<15 u) by post mortem disintegration of algae showed the algae, Penicillus, to be a major sediment contributor, accounting for all the fine aragonite mud in inner Florida Reef Tract and 1/3 of the same material in northeastern Florida Bay. The contribution of 3 other abundant algal species is assessed as well as the significance of mechanical breakdown of skeletons, molluscs, and corals. Transport of fine lime

muds from their production sources to areas of accumulation is discussed.

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ACC 107; TYPE ; YEAR 1976
STONE, J.H.;
ENVIRONMENTAL FACTORS RELATING TO LOUISIANA MENHADEN HARVEST.

BIBL CENTER FOR WETLAND RESOURCES, LOUISIANA STATE UNIVERSITY. BATON ROUGE, LA. LSU-T.-76-004.

KEYWORD: biology, coastal zone, continental shelf, fish catch. fish statistics, fish stock, fishery, temperature

ABSTRACT: The relationship between selected environmental factors of coastal Louisiana to Louisiana menhaden harvest and effort was studied by analyzing the factors separately. by factor analysis, by multiple regression, and by cross correlations. The environmental factors were air temperatures, water temperatures, rainfall data, tide data, and wind speeds and directions applicable to coastal Louisiana from 1950 through 1971; these data were reduced to weekly and monthly statistics. The menhaden catch and effort data were for the Louisiana harvest during 1950 through 1971 expressed as weekly and monthly totals. Only tide range data showed significant changes during the last 20 years, namely an increase of mean tide range, which is probably related to the rise in sea level noted by other Louisiana researchers. Factor analysis and multiple regressions both indicate that the same general type of data have a significant relationship to menhaden harvest, namely effort, time effects, water or air temperature, and some interactions among them. Significant relationships still exist between menhaden catch and selected environmental data when the effects of effort and time are removed; however, time effects are probably masking important environmental effects. A variety of variables can be used to produce a significant predictive relationship; examples are effort; minimum air temperature interacting with month, both not lagged and lagged for 12 months; wind direction at New Orleans interacting with month; wind direction at Baton Rouge interacting with minimum air temperature and lagged for 12 months; wind direction at New Orleans, mean air te

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ACC 2037; TYPE P; YEAR 1974
STONE, R.B.;
A BRIEF HISTORY OF ARTIFICIAL REEF ACTIVITIES IN THE UNITED STATES.

BIBL PROC. INT. CONF. ARTIFICIAL REEFS, TAMU-SG-74-103. P. 24-27.

KEYWORD: artificial reef, reef, tagging, fish, habitat

ABSTRACT: The history of artificial reefs within U.S. waters was briefly discussed. In addition, 10 reefs were constructed to provide technical assistance to states and other groups. Two projects in particular were discussed: one in cooperation with the South Carolina Wildlife Resources Dept. on a reef off Murrells Inlet, SC., and the other was a cooperative study with the National Park Service comparing a small tire reef in Biscayne National Monument with a similar size adjacent patch reef. Preconstruction surveys to determine the species and number of fishes living on reef sites were conducted. The surveys were continued once the reefs were constructed, and also trapping and tagging were used to gather information on species composition, relative abundance, and movement of fishes on and between reefs. In addition a number of nontoxic scrap materials were evaluated (including car bodies) building rubble, concrete culverts, ships and barges, and tires). It was found that by increasing the amount of reef habitat, artificial reefs provide the potential for increasing the stock sizes of fishes. It was suggested that artificial reefs could be an effective management tool that states or other management agencies could use to develop fisheries which benefit both anglers and the economy of coastal communities and conserve the resource by increasing habitat.

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ACC 2144; TYPE P; YEAR 1957
STORR, J.F.;
PROGRESS OF RECOVERY OF THE COMMERCIAL SPONGE BEDS OF FLORIDA.

BIBL PROC. GULF & CARIBB. FISH. INST. NOV. 1956.

KEYWORD: sponge, distribution, growth, currents, productivity

ABSTRACT: The results to date are reported on the recovery of commercial sponge beds located between Tampa Bay and Carrabelle. Past and present distribution studies are discussed and data is given on sponge productivity, growth rates, and factors affecting distribution. Using the results of these investigations, estimates were made on the probable distribution in 5 and 10 years.

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ACC 2145; TYPE P; YEAR 1964
STORR, J.F.;
ECOLOGY OF THE GULF OF MEXICO COMMERCIAL SPONGES AND ITS RELATION TO THE FISHERY.

BIBL U.S. FISH WILDL. SERV. SPEC. SCI. REPT. FISHERIES 466.

KEYWORD: ecology, sponge, growth, distribution, fishery, porifera, temperature, salinity, depth, currents

ABSTRACT: A 2 year study of the ecology of commercial sponges was conducted on the west coast of Florida. Reproduction of sponges and the effects of temperature and population density are discussed. The growth rate of wool sponges was determined and a growth formula was calculated. Environmental parameters are related to sponge distribution. The sponge industry from 1936 to 1958 is reviewed, as well as

the present stature of the fishery. Recommendations for increasing the sponge harvest are stated.

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ACC 2146; TYPE P; YEAR 1976
STORR, J.F.;
ECOLOGICAL FACTORS CONTROLLING SPONGE DISTRIBUTION IN THE GULF OF MEXICO AND THE RESULTING ZONATION. P. 261-276. IN: F.W. HARRISON AND R.R. COWDEN (EDS.) "ASPECTS OF SPONGE BIOLOGY".

BIBL ACADEMIC PRESS, NEW YORK. 354 P.

KEYWORD: sponge, diversity, growth, reproduction, wave, distribution, temperature, depth, currents, nutrient, tide

ABSTRACT: Sponge diversity and abundance along the northwestern coast of Florida in the Gulf of Mexico were found to be controlled by a combination of ecological factors. The rapid decline in mean low temperatures northward was of major importance to overall decline in diversity. Zone by zone, however, it was found that factors such as rock bar abundance, lower wave activity and the presence of the influx of nutrients from rivers, increased abundance and diversity. These factors augmented growth, reproduction rates, and sponge diversities. Limiting factors were excessive algal growth, which killed sponges; wide sandy areas, which inhibited sponge distribution because of the limited life span of sponge larvae; and high sedimentation rates resulting from strong tidal or wave activity which depleted energy of the sponges. From the sponge diversity it was possible to establish zones of sponge distribution, which correspond closely with the sponging grounds of the commercial sponges.

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ACC 2315; TYPE P; YEAR 1979
STUART, M.; TADDIO, P.;
HYDROLOGIC AND BIOLOGICAL MONITORING OF LOWER SARASOTA BAY, 1975-1978.

BIBL SARASOTA HIGH SCHOOL, SARASOTA, FL. ADVANCED MAR. SCI. REPT. NO. 1. 134 P.

KEYWORD: Sarasota, zooplankton, fish, invertebrate, temperature, salinity, DO, turbidity, tide, wind, wave, nutrient, seagrass

ABSTRACT: This study of lower Sarasota Bay includes water quality, zooplankton and grassflat monitoring for the years 1975-1978. The water quality monitoring program provided data defining seasonal variations for a variety of physical and chemical factors. Monthly and annual averages were computed. Since less than one full year of data had been collected, only limited conclusions from the zooplankton data could be drawn. Indications were that the average annual count of individuals was fairly high-- about 60,000 individuals/m3. Data indicated that all of the grassflats were productive at some time and probably contribute significantly to the bay food chains. One site appeared most stressed, probably due to frequent anoxia problems.

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ACC 4236; TYPE P; YEAR 1979
STUCK, K.C.; PERRY, H.M.; HEARD, R.W.;
RECORDS AND RANGE EXTENSIONS OF MYSIDACEA FROM COASTAL AND SHELF WATERS OF THE EASTERN GULF OF MEXICO USA.

BIBL GULF RES. REP. 6(3):239-248.

KEYWORD: distribution, crustacean

ABSTRACT: Records of 17 spp. of Mysidacea from the Gulf of Mexico are presented [including Anchialina typica (Kroeyer), Bowmaniella portoriceusis (Baseseu). B. floridana (Holmquist), B. brasiliensis (Bacescu), Pseudomma sp.. Siriella thompsonii (H. Milne-Edwards), Promysis atlancica (W.M. Tattersall), Metamysidopsis swifti (Bacescu), Bathymysis renoculata (W.M. Tattersall), Mysidopsis bigelowi (W.M. Tattersall), M. furca (Bowman), M. bahia (Molenock), M. almyra (Bowman), Brazilomysis castroi (Bacescu), Heteromysis formosa (S.I. Smith), Taphromysis louisianae (Banner) and T. bowmani (Bacescu)]. B. portoricensis, Pseudomma sp., S. thompsonii and B renoculata are recorded from the gulf for the first time. Range extensions within the gulf are established by A. typica and M. furca. Records of B. castroi and M. almyra from the Atlantic coast of the United States are reported.

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ACC 240; TYPE ; YEAR 1973
STURSA, M.L.;
RECREATION AND INDUSTRY -- COASTAL RESOURCES. IN J.I. JONES, R.E. RING, M. O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: resource, coastal zone, industry, recreation, socioeconomic

ABSTRACT: The recreational resources of the eastern Gulf support a tourist industry that adds over $5 billion per year to the economy of the region in addition to providing recreational facilities for residents of the three states. Over 10 million tourists per year visit the Gulf Coast of Florida. The Mississippi "Gold Coast" is also a popular tourist area. Tourism has little effect on the economy of Alabama. Recreational facilities on the Gulf Coast do not presently meet the demand for public recreation; beach facilities are in especially short supply. Florida has 15 state parks and recreational facilities on the Gulf Coast; Alabama has 4; Mississippi has 3. Resort and lodging facilities are big business in Florida and on the Mississippi Gold Coast. Vacation homes have developed on the coastal and estuarine beach areas of all states. Several areas of the eastern Gulf Coast are manufacturing centers. In Florida, the Tampa Bay area, Port St. Joe, Panama City, and Pensacola are the primary

industrial centers. Mobile is industrialized. Some industry is now moving into the Mississippi coastalzone, encouraged by the ports at Pascagoula and Gulfport. Florida's Gulf Coast has 5 deep-water ports; Mobile is one of the largest, most important ports on the Gulf of Mexico; Pascagoula and Gulfport provide deepwater facilities for Mississippi. The Gulf Intracoastal Waterway provides protected shipping lanes for smaller craft in most of the region. Coastal zone land use and planning is currently being studied in Florida by the Florida Coastal Coordinating Council. Mississippi and Alabama have made little progress in planning for coastal zone manage...

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ACC 241; TYPE ; YEAR 1973
STURSA, M.L.;
ENVIRONMENTAL QUALITY PROBLEMS. IN J.I. JONES, R.E. RING, M.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: Florida, coastal zone, habitat, industry, pollution, socioeconomic, water quality

ABSTRACT: Storms and hurricanes are the most important of the natural environmental quality problems affecting the eastern Gulf Coast. Wind, flooding, and storm surges are shown to have caused extensive damage to coastal areas over the years. These destructive elements have taken their toll on beaches, vegetation, development, and water supplies. Dredge and fill operations are one of the artificial environmental factors that have caused problems in the eastern Gulf. Statewide, Florida has lost 796,000 acres of original habitat to dredge and fill; 23,521 acres of Florida's Gulf Coast were filled through 1967. Dredging and filling have destroyed many grass beds and much marine habitat in Florida. Many wetlands in Mobile Bay have been filled, and the extensive dredging necessary for the maintenance of the harbor has caused much turbidity and sediment in the Bay. Industrial pollution and sewage contamination on the eastern Gulf Coast coexist generally with large communities and concentrations of industry. It is estimated that 31 percent of the area of Florida's west coast estuaries is polluted. Tampa Bay and Pensacola Bay have both had large, pollution-associated fish kills. In Alabama, Mobile Bay is extensively polluted, and there is some pollution on the Gulf Coast and near Dauphin Island. Mississippi has a number of bays and estuaries that are undergoing hyperfertilization because of sewage. Industrial wastes have not yet caused major pollution problems in that state. Beach erosion is both a natural and man-made environmental problem. In Florida 351 miles of Gulf and estuarine shoreline are critically eroded; in Alabama, 32 miles, and

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ACC 4141; TYPE P; YEAR 1983
STURGES, W.; EVANS, J.C.;
ON THE VARIABILITY OF THE LOOP CURRENT IN THE GULF OF MEXICO.

BIBL J. MAR. RES. 41:639-653.

KEYWORD: circulation, currents, loop current, remote sensing, physical, oceanography

ABSTRACT: It is of considerable interest to know to what extent offshore currents may drive flows on the continental shelf. We have used the northernmost position of the Loop Current, from hydrographic data, to piece together a time series 13 years long. This record samples the lowest frequencies well but undersamples the amplitude of variations with periods of about 8 months by a factor of 2. The "annual" variation of the Loop Current appears to be a relatively broad spectral peak rather than a sharp spectral line. We find as much power at periods near 30 months as at periods near a year; this is a new result. Both bands seem to be, at least in part, wind forced. There are also fluctuations having periods near 8 months, and this may be a beat frequency. As the 30-month and annual signals drift in and out of phase over about 5 years, the envelope of the 8-month signal varies from zero to a maximum of about 2.5 degrees of latitude, peak-to-peak, which is the same as the range of the 30-month signal. Our primary finding is that the north-south fluctuations in Loop Current position are correlated with sea level at the coast and presumably with coastal currents. The results are essentially the same using tidal data at either St. Petersburg or Key. The phase delay is such that the inferred southerly flowing currents on the shelf reach a maximum before Loop Current position reaches its maximum northern position, by 1 to 3 months. If the Loop Current is inherently unstable, as the numerical model of Hurlburt and Thompson (1980) suggests, the wind forcing may merely set the frequency of the variability.

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ACC 4254; TYPE P; YEAR 1979
STURGES, W.; HOROTN, C.;
CIRCULATION IN THE GULF OF MEXICO. SYMPOSIUM ON ENVIRONMENTAL RESEARCH NEEDS IN THE GULF OF MEXICO (GOMEX) KEY BISCAYNE, FL (USA) 30 SEPT. 1979

BIBL PROC. SYMP. ENVIRON. RES. NEEDS IN THE GULF OF MEXICO (GOMEX), KEY BISCAYNE, FL. 30 SEPTEMBER-5 OCTOBER 1979.

KEYWORD: circulation, loop current, nutrient, currents

ABSTRACT: The strongest single feature in the Gulf of Mexico is the Loop Current. This flow enters the Caribbean and eventually becomes the Gulf Stream. The path that it takes, however, is highly time-dependent, and this portion of the pre-Florida Current is known as the Loop Current. This current is important, not only in its own regard, but also in that it injects pinched-off rings to the interior of the Gulf. These rings carry with them momentum, salt, and nutrients, which are major contributions to the balances of the interior and western portions of the Gulf. The Loop Current and its variability is likely to be important to understanding the exchange of deep water between the Gulf and the Caribbean. The Loop Current also may act as a significant external driving mechanism for adjacent areas of the west Florida shelf. It is not well known what forcing mechanisms control the position, growth, or decay of the Loop Current. But the information

required for a real understanding of Loop Current variability is enormous. A summary is provided on recent and ongoing programs in which the data is not yet in the open literature.

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ACC 2050; TYPE P; YEAR 1971
SUGIRI, G.K.A.;
A DESCRIPTION OF THE TORTUGAS SHRIMP FISHERY AND ITS MAXIMUM SUSTAINABLE YIELD.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL.

KEYWORD: fishery, pink shrimp, socioeconomic

ABSTRACT: Data on the shrimp fishery efforts in the Tortugas was compiled to obtain figures on production, relative abundance, size composition, and distributions. Several sources were used including interviews, Bureau of Commercial Fisheries and Vessel listings. Various statistics are given and implications for the fishery industry are discussed.

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ACC 98; TYPE ; YEAR 1976
SUHAYDA, J.N.; WHELAN, T.; COLEMAN, J.M.; BOOTH, J.S.; GARRISON, L.E.;
MARINE SEDIMENT INSTABILITY: INTERACTION OF HYDRODYNAMIC FORCES AND BOTTOM SEDIMENTS. PAGES 29-40 IN 8TH ANNUAL OFFSHORE TECHNOLOGY CONFERENCE, MAY 3-6, 1976, HOUSTON, TX. OTC-2426.

BIBL OFFSHORE TECHNOLOGY CONFERENCE.

KEYWORD: geology, sedimentation, wave height, wave speed, wave, sediment transport

ABSTRACT: Simultaneous measurements of bottom oscillations and wave characteristics have been made in a study of the interaction of fine-grained sediments and surface waves. Wave staffs, pressure sensors, and an electromagnetic current meter were placed 150 ft from a bottom-emplaced accelerometer package at East Bay, Louisiana. Measurements were made in about 64 ft of water from an oil platform in an area having a fine-grained clay bottom. Sediment core samples were taken to a depth of 180 ft. The accelerometer package consisted of three solid-state accelerometers mounted at right angles, and had a response of 3 v/g. The package was placed about 1 ft below the mudline. The results of the experiments indicate that bottom motions under wave action show well-defined periodic features. Bottom oscillations on the order of 1 in. in amplitude occurred for seas having a significant wave height of about 3 ft and period of 5 sec. The bottom appears to be undergoing an elastic wave response to bottom pressures, so that the bottom is depressed under a surface wave crest. Comparison of wave height measurements and pressure measurements indicate that bottom pressures are not predicted by linear theory for a rigid bottom. Pressures were larger than predicted by up to 35% in many cases.

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ACC 591; TYPE ; YEAR 1982
SUHAYDA, J.N.; COLEMAN, J.M.; WHELAN, T.; GARRISON, L.E.;
OSCILLATION OF CONTINENTAL SHELF SEDIMENTS CAUSED BY WAVES. PAGES 57-76 IN A.K. FANNING AND F.T. MANHEIM, EDS. THE DYNAMIC ENVIRONMENT OF THE OCEAN FLOOR.

BIBL LEXINGTON BOOKS, LEXINGTON, MA.

KEYWORD: continental shelf, geology, sediment, wave energy, wave pressure, sediment transport, wave

ABSTRACT: Measurements have been made of the oscillations of bottom sediments on the continental shelf induced by the passage of surface waves. A wave staff and pressure sensor were placed 45 m from a bottom-emplaced accelerometer in East Bay, Louisiana. Measurements were made in 20 m of water in an area where bottom sediments were composed of clay and silts. A sediment core was taken to a depth of 40 m. The results of the experiments indicate that these fine-grained bottom sediments move in a wave-like fashion under surface-wave action. Bottom oscillations on the order of 2 to 3 cm occurred under waves having a height of 1 m and a period of 5 seconds. The bottom motion appears to be an elastic-like response to wave pressure. Estimates of the amount of wave energy lost in forcing the mud wave indicate that the interaction can significantly affect surface-wave characteristics and the stability of bottom sediments.

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ACC 2181; TYPE P; YEAR 1979
SULLIVAN, J.R.;
THE STONE CRAB, MENIPPE MERCENARIA, IN THE SOUTHWEST FLORIDA FISHERY.

BIBL FLA. MAR. RES. PUBL. NO. 36. 37 P.

KEYWORD: stone crab, migration, fishery, crustacea

ABSTRACT: During the 1975-76 commercial trapping season in southwest Florida, 14,343 stone crabs were tagged and during the summer closed season, 4,563 additional crabs were tagged. The 4.4% tagged crabs returned indicated inshore movement in fall and offshore migration in spring with little movement by spawning females in summer. Spawning females were found during every month but most frequently from March to September. Ovigerous females were of similar size to nonovigerous females. Gravid females weighed more than similar nonovigerous females. Other morphometric relationships for males and females are summarized. The proportion of each size class composing the population is given and claw growth and regeneration rates were determined. Twenty to 25% of legal sized crabs were in the process of claw regeneration implying intense fishery pressure, but indicating survival of declawed crabs. Population size was estimated at 9,057 to 32,036 legal sized crabs available to a trap line during one week. Approximately 3 to 8% of the available population was caught each time traps were checked,

indicating that most legal sized crabs were captured during each commercial season.

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ACC 325; TYPE ; YEAR 1980
SUTHERLAND, D.F.; FABLE, W.A.;
RESULTS OF A KING MACKEREL (SCOMBEROMORUS CAVALLA) AND ATLANTIC SPANISH MACKEREL (SCOMBEROMORUS MACULATUS) MIGRATION STUDY.

BIBL NATIONAL MARINE FISHERIES SERVICE, PANAMA CITY, FL. NOAA-TM-NMFS-SEFC.12. 27 PP.

KEYWORD: biology, coastal water, fishery, migration, king mackerel, spanish mackerel

ABSTRACT: Not available.

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ACC 391; TYPE ; YEAR 1983
SUTTER, F.C.; CHRISTMAS, J.Y.;
MULTILINE MODELS FOR THE PREDICTION OF BROWN SHRIMP HARVEST IN MISSISSIPPI WATERS.

BIBL GULF RES. REP. 7(3):205-210.

KEYWORD: biology, coastal water, fishery statistics, fishery, mathematical model, shrimp, brown shrimp

ABSTRACT: A multilinear regression analysis of water temperature, salinity, and number of postlarval brown shrimp in nursery areas was used to predict the June and July commercial harvest of brown shrimp in Mississippi waters. A total of 80.2% of the variation in harvest was accounted for by this model. When an effort variable was added to the equation, the amount of variation explained by these parameters increased to 85.4% The coefficients of the two multilinear equations were recalculated exclusive of the data set for the last year to test the predictive capabilities of the models. For that year, the first model showed a percent error of 38.2%, and the second model, 35.3%

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ACC 2479; TYPE P; YEAR 1968
SWEAT, D.E.;
GROWTH AND TAGGING STUDIES ON PANULIRUS ARGUS (LATREILLE) IN THE FLORIDA KEYS.

BIBL FLA. BD. CONSERV. MAR. RES. LAB., TECH. SER. NO. 57. 30 P.

KEYWORD: Monroe, spiny lobster, growth, plankton, migration, tagging, temperature, salinity, tide, wind

ABSTRACT: Juvenile spiny lobsters (Panulirus argus) were studied in the Florida Keys from March 1966 to August 1968. Various sampling devices and artificial habitats were tested in different locations throughout the Keys to determine the best areas and most efficient techniques for collecting postlarval lobsters. Plankton samples indicated that metamorphosis of the phyllosome larvae probably occurs offshore, followed by a postlarval migration inshore. Results are reported from a tagged study of 2500 lobsters released near Key West.

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ACC 745; TYPE ; YEAR 1964
SWEDMARK, B.;
THE INTERSTITIAL FAUNA OF MARINE SAND.

BIBL BIOL. REV. 39:1-42.

KEYWORD: benthic community, biology, coastal water, feeding habit, meiofauna, taxonomy

ABSTRACT: This article discusses the interstitial environment and adaptations by the interstitial fauna to this unique environment. The biology of these organisms (locomotion, nutrition and reproduction) is discussed, along with a systematic survey of the interstitial fauna.

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ACC 614; TYPE ; YEAR 1971
SWIFT, D.J.P.; STANLEY, D.J.; CURRAY, J.R.;
RELICT SEDIMENTS ON CONTINENTAL SHELVES: A RECONSIDERATION.

BIBL J. GEOL. 79:322-346.

KEYWORD: Holocene, Pleistocene, continental shelf, geology, sediment

ABSTRACT: Relict sediments on shelves, originally defined as "remant from different earlier environment," are recognized by petrographic criteria (grain size, iron staining. etc.), fauna, and topography. Recent studies have revealed a second set of attributes which indicate that these deposits, although originating in an earlier environment are dynamic systems which are undergoing modification in response to their present environment, especially the hydraulic regime, and are approaching a state of equilibrium with this environment. The modification may be simulated by means of a stochastic process model. A spectrum of modern shelf regimes and the resulting deposits is considered. The high-energy, tide-dominated shelf seas of western Europe have extensively reworked their Pleistocene and Holocene transgressive substrates, producing a constructional topography and regional textural gradients. Similar topography and textural gradients are reported from the tide-swept shoals and banks off northeastern North America and from farther south in the Middle Atlantic Bight, a wave-dominated shelf. Reworking in lower-energy environments such as the Gulf of Mexico may result only in textural mixing of the products of deposition of different periods of time and different sources. The reworked portions of relict sediments are thus a facies in transition, physically induced analogues of the chemically induced soil profiles of subaerial surfaces. While "relict sediment" is a valuable genetic name for the unreworked sediment type, "palimpsest sediment" is a

convenient operational descriptive term the reworked parts.

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ACC 625; TYPE ; YEAR 1972
SWIFT. D.J.P.; DUANE, D.B.; PILKEY, O.H., EDS.;
SHELF SEDIMENT TRANSPORT.

BIBL STROUDSBURG, DOWDEN, HUTCHINSON AND ROSS.

KEYWORD: continental shelf, geology, physical process, sediment transport

ABSTRACT: Not available.

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ACC 2182; TYPE P; YEAR 1972
SYKES, J.E.;
REPORT TO THE NATIONAL MARINE FISHERIES SERVICE BIOLOGICAL LABORATORY, ST. PETERSBURG BEACH, FISCAL YRS. 1970 AND 1971.

BIBL NATL. OCEANIC ATMOS. ADMIN. TECH. MEM. NMFS SER.2. 13 P.

KEYWORD: fishery, resource, fish, estuary, development

ABSTRACT: A biological report from the National Marine Fisheries Service presented the following conclusions concerning Florida's marine resources from 1970-1971 studies. Most of the major coastal and offshore fisheries of the United States depend upon species related to rearing and nursery areas in estuaries and the nearshore zone. To maintain and increase coastal shell fisheries, it is necessary to provide continuing biological production near shore. Such provision requires a thorough ecological knowledge of the nursery and rearing araa. Currently, over 6,000 engineering proposals for estuarine areas are reviewed by federal agencies each year. In view of relentless pressures affecting estuaries, this laboratory works with other federal agencies and the Gulf states to provide data directly applicable to the preservation, maintenance, and enhancement of nursery areas that generate valuable commercial and recreational species.

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ACC 2283; TYPE P; YEAR 1967
SYKES, J.E.;
REPORT OF THE BUREAU OF COMMERCIAL FISHERIES BIOLOGICAL LABORATORY, ST. PETERSBURG BEACH, FLORIDA. FISCAL YEAR 1966.

BIBL U.S. DEPT. INTER., FISH WILFL. SERV. CONTRIB. NO. 32, CIRC. 257. 18 P.

KEYWORD: red tide, estuary, productivity, management

ABSTRACT: Progress in estuarine and red tide research programs was described. The application of biological information toward the maintenance and conservation of estuarine zones was stressed. The programs were designed to document the relatively unknown scope of biological productivity in the coastal zones of the eastern Gulf of Mexico, to measure the effect of changes in these zones, and to develop methods of increasing marine resources which can be used by man.

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ACC 2284; TYPE P; YEAR 1968
SYKES, J.E.;
REPORT TO THE BUREAU OF COMMERCIAL FISHERIES BIOLOGICAL LABORATORY, ST. PETERSBURG BEACH, FLORIDA.

BIBL U.S. DEPT. INTERIOR, FISH WILDL. SER., CONTRIB. NO. 39. CIRC. 290.17 P.

KEYWORD: fishery, plankton, fish, physical, biological, red tide

ABSTRACT: The major goals of the Laboratory were discussed: to explore the relatively unknown scope of biological productivity in the coastal zone of the eastern Gulf of Mexico; to measure the effect of changes in that zone; and to develop methods of increasing estuarine fishery resources. The report described current research on projects in the estuarine and red tide programs. The projects included studies of sediments and organisms in bay bottoms, plankton crops and fish residing in and transferring between estuaries and the Gulf of Mexico, toxicity of the red tide organism, and experimental rearing of pompano in an impounded lagoon. A physical, hydrological, biological and sedimentological inventory of Florida estuaries was also in progress. A systematic and ecological study of benthos in Tampa Bay was reported.

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ACC 2285; TYPE P; YEAR 1970
SYKES, J.E.;
REPORT OF THE BUREAU OF COMMERCIAL FISHERIES BIOLOGICAL LABORATORY, ST. PETERSBURG BEACH, FLORIDA. FISCAL YEAR 1969.

BIBL U.S. DEPT. INTERIOR, FISH WILDL. SER., CONTRIB. NO. 55, CIRC. 342. 22 P

KEYWORD: temperature, salinity, DO, nutrient, turbidity

ABSTRACT: Highlights of research for the 6 year period included analysis and publication of data related to effect of engineering on the estuarine resource and

completion of field work on the Florida portion of the cooperative Gulf of Mexico estuarine inventory. In addition, data supplied through testimony to the Florida legislature assisted in establishment of an aquatic preserve; and after a local hearing in which laboratory data were presented, a municipality disapproved a potentially damaging engineering project.

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ACC 2286; TYPE P; YEAR 1966
SYKES, J.E.; FINUCANE, J.H.;
OCCURRENCE IN TAMPA BAY, FLORIDA OF IMMATURE SPECIES DOMINANT IN GULF OF MEXICO COMMERCIAL FISHERIES.

BIBL FISH. BULL. 65(2):369-379.

KEYWORD: seasonal, distribution, commercial fishery, fishery, salinity, blue crab, pink shrimp, brown shrimp

ABSTRACT: Species inhabiting the Tampa Bay estuary in early life & entering Gulf fisheries as adults were discussed. Twenty three species of major importance in Gulf of Mexico commercial fisheries were found inhabit Tampa Bay during immaturity. Seasonal and aerial distribution was described for the species common to Tampa Bay biological collection and catches in the Gulf. Although most of these species were distributed throughout the Bay system, Old Tampa Bay harbored greater numbers than any other area. Hillsborogh Bay, an area of the system similar to Tampa Bay in salinity regime, harbored fewer important species than any other area. Its relatively low production was attributed to the loss of the natural habitat through human alteration. The role of the estuary on producing species important in Gulf fisheries was discussed, and the need for preservation of estuarine nursery areas was stressed.

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ACC 2183; TYPE P; YEAR 1962
TABB, D.C.; DUBROW, D.L.; JONES, A.E.;
STUDIES ON THE BIOLOGY OF THE PINK SHRIMP, PENAEUS DUORARUM BURKENROAD, IN EVERGLADES NATIONAL PARK, FLORIDA.

BIBL ST. BD. CONSER., UNIV. MIAMI MAR. LAB. TECH. SER. NO. 37, 2\1-32 P

KEYWORD: biology, pink shrimp, tide, temperature, salinity

ABSTRACT: Studies in the Everglades National Park indicated that populations of Penaeus duorarum postlarvae peaked during the spring and early summer and reached low points in the late summer and fall. Peak numbers of postlarvae generally coincided with the peak velocity of the flooding tides. Juvenile P. duorarum abundance peaked from June to September and were lowest in December and January. P. duorarum were determined to be sensitive to sudden cold temperatures and were observed to respond by entering deeper water. Carapace length-frequency distributions demonstated time and characteristics of periods of juvenile immigration into the nursery and size during emigration to offshore grounds. Pink shrimp were determined to be tolerant of diverse salinity ranges.

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ACC 2480; TYPE P; YEAR 1962
TABB, D.C.; DUBROW, D.L.; MANNING, R.B.;
THE ECOLOGY OF NORTHERN FLORIDA BAY AND ADJACENT ESTUARIES.

BIBL MAR. LAB., UNIV. OF MIAMI, TECH. SER. NO. 39, 81 P.

KEYWORD: Monroe, ecology, turbidity, fish, invertebrate, sediment, benthic, currents, salinity, DO, tide, wind, seagrass

ABSTRACT: Florida Bay was characterized by turbidity, shallow waters and dominant cover (Thalassia). Fauna and flora of the offshore regions were found to be related to the major substratum types. A large influx of fishes and invertebrates into the study area in the late fall, corresponding to lower salinities, was noted. Analysis of bottom sediments provided an estimate of the character of the bottom as a substratum for benthic organisms and gave an indication of the nature of deposition of the various sediment size fractions in relation to currents, wind transport and fresh water source.

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ACC 2481; TYPE P; YEAR 1974
TABB, D.C.; HEALD, E.J.; (TROPICAL BIOINDUSTRIES DEV. CO.);
ENVIRONMENTAL SURVEY AND COMMENTARY ON PHASE 1--HARBOR COURSE DEVELOPMENT PLAN.

BIBL IN: ENVIRONMENTAL, BIOLOGICAL, AND HYDROLOGICAL REPORTS TO ACCOMPANY PLANS FOR PHASE I-HARBOR COURSE DEVELOPMENT...OCEAN REEF CLUB. P.1-17, SEC. 1

KEYWORD: Monroe, biological, hydrological, community, salinity

ABSTRACT: A survey of environmental conditions to accompany plans for a proposed expansion of the Ocean Reef Club on Key Largo was conducted. An examination was made of the Dispatch Slough area, and the mangrove communities occupying the Slough were described. A determination was made whether or not these communities are effectively intertidal, irrespective of their elevation in relation to surveyed mean sea level. Additionally, an assessment of the importance of the mangrove communities of the slough as contributors to adjacent biological systems was presented. Comments were given on the impact of the proposed development plan on the slough and adjacent coastal areas.

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ACC 2482; TYPE P; YEAR 1962
TABB, D.C.; JONES, A.C.;
EFFECT OF HURRICANE DONNA ON THE AQUATIC FAUNA OF NORTH FLORIDA BAY.

BIBL TRANS. AM. FISH. SOC. 91(4):375-378.

KEYWORD: Monroe, oxygen, mortality, salinity, dissolved oxygen, fish, pink shrimp, storm event, hurricane

ABSTRACT: A report on the effects of Hurricane Donna on aquatic fauna in North Florida Bay was presented. In December 1960, Hurricane Donna caused heavy mortality among aquatic fauna in North Florida Bay. The depletion of oxygen due to the decomposition of organic material resulted in subsequent mortality. Within 6 weeks, salinities were normal; however, dissolved oxygen concentrations remained unusually low for a longer period. In regions of greatest oxygen depletion, aquatic fauna were scarce for many months. Sport fish catches declined right after the hurricane, but recovered within 1 to several months, depending upon the area. Moreover, juvenile pink shrimp moved from their estuarine nursing grounds into deeper water approximately 60 miles offshore.

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ACC 2483; TYPE P; YEAR 1961
TABB, D.C.; MANNING, R.B.;
A CHECKLIST OF THE FLORA AND FAUNA OF NORTHERN FLORIDA BAY AND ADJACENT BRACKISH WATERS OF THE FLORIDA MAINLAND COLLECTED DURING THE PERIOD JULY 1957 THROUGH SEPTEMBER 1960.

BIBL BULL. MAR. SCI. GULF & CARIBB. 11(4):552-649.

KEYWORD: Monroe, invertebrate, fish, physical, distribution, abundance, temperature, salinity, flora, fauna

ABSTRACT: Collections from the marine and brackish water areas of northern Florida Bay and adjacent estuaries resulted in 432 species of plants, invertebrate animals and fish. Notes on their abundance, tolerance to changes in the physical environment, and distribution in relation to habitat were included. Fluctuations in distribution and abundance in a natural environment were studied.

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ACC 2205; TYPE P; YEAR 1978
TAGATZ, M.E.; TOBIA, M.;
EFFECT OF BARITE (BASO4) ON DEVELOPMENT OF ESTUARINE COMMUNITIES.

BIBL ESTUAR. COAST. MAR. SCI. 7:401-407.

KEYWORD: drilling mud, larvae, barium, annelid

ABSTRACT: Barite, the primary component of oil drilling muds, was placed in aquaria with flowing estuarine water, and communities developing from planktonic larvae were observed. Aquaria contained: sand only; 1 part barite and 10 parts sand; 1 part barite and 3 parts sand; or sand covered by 0.5 cm barite. After 10 weeks exposure fewer animals were found in barite covered sand and the 1 barite:3 sand aquaria. Annelids were particularly affected. Data indicate large quantities of barite could affect the colonization of benthic animals.

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ACC 2206; TYPE P; YEAR 1978
TAGATZ, M.E.; IVEY, J.M.; LEHMAN, H.K.; OGLESBY, J.L.;
EFFECTS OF A LIGNOSUFONATE-TYPE DRILLING MUD ON DEVELOPMENT OF EXPERIMENTAL ESTUARINE MACROBENTHIC COMMUNITIES.

BIBL NE GULF SCI. 2(1):35-42.

KEYWORD: drilling mud, larvae, coelenterate, polychaete

ABSTRACT: Communities developing from planktonic larvae in aqauaria containing flowing estuarine water and various proportions of sand and drilling mud were evaluated. Annedlids and coelenterates were fewer in aquaria containing drilling mud than aquaria with sand only. Exposures to drilling mud reduced both numbers of individuals and species. These and other data suggest large discharges of drilling mud could adversely affect the colonization of substrata by bethnic animals.

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ACC 2207; TYPE P; YEAR 1979
TAGATZ, M.E.; IVEY, J.M.; OGLESBY, J.L.;
TOXICITY OF DRILLING-MUD BIOCIDES TO DEVELOPING ESTUARINE MACROBENTHIC COMMUNITIES.

BIBL NORTHEAST GULF SCI. 3(2):88-95.

KEYWORD: community, drilling mud, drilling, mollusc, polychaete

ABSTRACT: The effects of the biocides Surflo B33 (25% dichlorophenol and other chlorophenols) and Aldacide (91% paraformaldehyde), which are used in drill muds for oratory drilling for oil offshore, on developing macrobenthic communities were examined from laboratory treatments lasting 7 weeks. Thirty seven species from 6 phyla were represented among the 1,941 animals developed from planktonic larvae. Abundance of chordates, molluscs, and anelids were significantly reduced in treatments of 819 ug Surflo.B33/1 as compared to controls; molluscs were also significantly fewer in treatments of 41 ug/1. Aldacide concentrations of 15 and 300 ug/1 did not significantly affect average numbers of animals or species, indicating that paraformaldehyde should be considered as an alternative biocide to highly toxic chlorophenols for use in natural waters.

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ACC 2208; TYPE P; YEAR 1978
TAGATZ, M.E.; IVEY, J.M.; LEHMAN, H.K.; OGLESBY, J.L.;
EFFECTS OF A LIGNOSULFONATE TYPE DRILLING MUD (AS USED IN EXPLORATORY DRILLING FOR OIL OFFSHORE) ON THE DEVELOPMENT OF ESTUARINE MACROBENTHIC COMMUNITIES.

BIBL

KEYWORD: drilling mud, drilling, coelenterate, mollusc, polychaete, crustacean

ABSTRACT: Effects of a lignosulfonate type drilling mud (as used in exploratory drilling for oil offshore) on the development of estuarine macrobenthic communities was studied. Specifically, the effects on the community composition were: 1) annelids and coelenterates were significantly fewer in aquaria containing drilling mud than in the control aquaria, and 2) arthropods were significantly affected by mud cover over sand. Molluscs were also diminished in this environment but not significantly. Overall, it was concluded that the discharge of large quantities of drilling mud at levels tested in the laboratory will adversely affect the colonization of various substrata by benthic animals in nature.

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ACC 2558; TYPE P; YEAR 1968
TAGATZ, M.D.;
BIOLOGY OF THE BLUE CRAB, CALLINECTES SAPIDUS RATHBUN, IN THE ST. JOHNS RIVER, FLORIDA.

BIBL FISH. BULL. 67(1):17-33.

KEYWORD: blue crab, spawning, mollusc, fish, crustacean, temperature, salinity

ABSTRACT: A description of the biological characteristics of Callinectes sapidus in the St. Johns River was presented. Blue crabs commonly mated from March to July and from October to December in the St. Johns River. The proportion of males and females that matured at a small size was larger in saltwater than in freshwater. Blue crabs spawned in the first 30 km of river above the mouth and the eggs hatched in the ocean within 6 km of shore. Spawning began as early as February and continued through October. Some blue crabs of both sexes migrated from the St. Johns River to the Intracoastal Waterway, to 4 other rivers, and to the ocean. Many females tagged in the ocean were recaptured in inland waters throughout the year. During the spawning season some reentered the St. Johns River for a second spawning within 15 days after their eggs hatched. Blue crabs 5 to 200 mm wide fed principally upon molluscs (primarily clams and mussels), fish, and crustaceans (amphipods and crabs). They ate the same type of food regardless of crab size, area, and season.

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ACC 2559; TYPE P; YEAR 1969
TAGATZ, M.E.;
GROWTH OF JUVENILE BLUE CRAB, CALLINECTES SAPIDUS RATHBUN, IN THE ST. JOHNS RIVER, FLORIDA.

BIBL FISH. BULL. 67(2):281-288.

KEYWORD: growth, blue crab, temperature, salinity

ABSTRACT: Molt intervals of the blue crab Callinectes sapidus were similar at fresh and salt water sites, but the average growth was determined to be generally more per molt in salt water. From April to mid-November the mean molt interval was 11 days for crabs 20 to 29 mm wide; it increased to 41 days for crabs 130 to 139 mm wide. Frequency of molting decreased in winter, but most juveniles 20 to 59 mm wide molted 2 or 3 times. Growth increments per molt varied from 7.8 to 50%. Mean growth increments, by 10 mm width groups, was 20.9 to 34.2%. Estimates indicated that most blue crabs in the St. Johns River reach harvestable size (width of 120 mm) within one year after hatching.

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ACC 553; TYPE ; YEAR 1976
TANNER, W.R.;
OIL PROSPECTS IN THE GULF OF MEXICO REGION.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC. 26:345-348.

KEYWORD: coastal water, exploration, geology, oil, resource, sedimentology

ABSTRACT: Assessment of the relative merits of poorly explored regions can be made on the basis of a structural-sedimentological analysis of information from as few wells as one per region. The pertinent variables are (1) mean grain size, (2) sorting or clay content, (3) organic matter, and (4) rate of burial. This information is readily available from cores or samples, and reasonably good estimates can be made from modern log suites. For a "Most Attractive" rating, the possible reservoir beds in a well to be studied should have the mean size in the sand category, and sorting should be good-to-excellent (very little clay or fine silt); associated rocks should have a relatively high content of organic matter; and the indicated burial rate should be high. A less satisfactory assessment, using these same concepts, can be made on the basis of general geological knowledge without well data. Under these circumstances, the required sedimentological information can be estimated on the basis of regional geological knowledge. These techniques do not apply in dominantly carbonate or evaporite sections and hence cannot be used in the Florida and Yucatan areas. For the rest of the coastal plain and continental shelf of the Gulf of Mexico region, application of the four basic ideas indicates that the most attractive targets are in the state of Louisiana and Tabasco (and immediately adjacent areas), and that lesser production can be expected as one moves along the coast away from these prime targets.

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ACC 718; TYPE ; YEAR N/AN
TANNER, W.F.;
FLORIDA GULF COAST SURF ZONE WAVE POWER DATA.

BIBL DEPARTMENT OF GEOLOGY, FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: mineralogy, sediment texture, sediment, wave amplitude, wave length, wave period, wave speed, model, sediment transport

ABSTRACT: Surf zone wave power data along the Gulf coast of Florida, has been collected by the Geology Department of Florida State University since 1971. Measurements of surf zone waves have been made along the coast at intervals of approximately 800 meters or less. These data have been correlated with ocean wave data for the same time periods, and computer models have been generated. Associated sediment data, including size analysis and mineralogy for 60 stations along the coast, has been collected to verify computer model theorized areas of erosion and deposition.

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ACC 2147; TYPE P; YEAR 1959
TANNER, W.F.;
NEARSHORE STUDIES IN SEDIMENTOLOGY AND MORPHOLOGY ALONG THE FLORIDA PANHANDLE COAST.

BIBL J. SEDIMENT. PET. 29(4):564-574.

KEYWORD: sediment, chemical, grain size, assemblage, microfauna

ABSTRACT: A general survey of the nearshore (<10 miles offshore) sediments of the Florida panhandle region was conducted from 1955 to 1958. Sedimentological parameters investigated included chemical composition, grain size and roundness, heavy mineral content, microfaunal assemblage, and ripple marks and related features. Quartz was found to be dominant while heavy minerals were rare within the study area. Sediment grain size increased in a seaward direction. Sedimentation was thought to be regulated by small changes in bathymetry. Shell fragments were uncommon in most locations, although fauna containing hard parts were abundant.

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ACC 4232; TYPE P; YEAR 1982
TAPANES, J.J.; GONZALEZ-OOYA, F.;
CAUSES AND PREDICTION OF ROUGH SEAS IN THE GULF OF MEXICO CAMPECHE BANK AND CUBAN SHELF WATERS AND THEIR EFFECT ON FISHERIES.

BIBL REV. INVEST. MAR. 2(2):3-108.

KEYWORD: wind, wave, fishery, meteorology

ABSTRACT: Wind fields in the Gulf of Mexico, Campeche Bank and Cuban shelf waters are presented, due principally to cold fronts, trade and southern winds, and its influence on wave generation. The influence of such winds upon fishery activities in the shelf waters is also outlined.

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ACC 320; TYPE ; YEAR 1975
TATUM, W.M.;
EXPERIMENTS IN OVERWINTERING FLORIDA POMPANO AND WINTER CULTURE OF RAINBOW TROUT.

BIBL ALABAMA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, MONTGOMERY, AL. NOAA-75092905. 22 PP.

KEYWORD: biology, coastal water, fishery, mariculture, fish

ABSTRACT: Not available.

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ACC 239; TYPE ; YEAR 1973
TAYLOR, J.L.; FEIGENBAUM, D.L.; STURSA, M.L.;
UTILIZATION OF MARINE AND COASTAL RESOURCES. IN J.I. JONES, M.E. RING, M.O. RINKEL, AND R.E. SMITH, EDS. A SUMMARY OF KNOWLEDGE OF THE EASTERN GULF OF MEXICO.

BIBL STATE UNIVERSITY SYSTEM OF FLORIDA, INSTITUTE OF OCEANOGRAPHY, ST. PETERSBURG, FL.

KEYWORD: resource, socioeconomic, commercial fishery, sport fishery, estuary, snapper, grouper, stone crab, spiny lobster, mullet, sea trout, blue crab

ABSTRACT: This article is a review of commercial and sport fisheries in the Gulf of Mexico with particular attention to those in the eastern region between Tortugas and the Mississippi Delta. Estuarine dependence of these fisheries is emphasized, and data are presented on fishery production and the fishing industry. Production potential and the future of Gulf fisheries are discussed, together with prospects for rearing selected species by techniques of aquaculture. Important aspects of state fisheries are summarized for eastern Louisiana, Mississippi, Alabama, and Florida. The most important fisheries in the eastern Gulf are described in detail. These include fisheries for shrimp menhaden, industrial bottom fish, snappers and groupers, mackerel, mullet, seatrout, oyster, blue crab, stone crab, and spiny lobster. The impact of these fisheries on such wet land resources as tidal flats, mangrove swamps, salt marshes, and contiguous freshwater marshes is also covered, and a brief discussion of barrier beaches is presented.

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ACC 756; TYPE ; YEAR 1978
TAYLOR, J.L.;
EVALUATION OF DREDGING AND OPEN WATER DISPOSAL ON BENTHIC ENVIRONMENTS: GULF INTRACOASTAL WATERWAY-- APALACHICOLA BAY, FLORIDA TO LAKE BORGNE, LA.

BIBL U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, MOBILE, AL. 51 PP.

KEYWORD: benthic community, biology, dredging, benthic, fauna, productivity

ABSTRACT: From November, 1977 to February, 1978, 784 benthic samples were collected from 28 sites from Apalachicola Bay, Florida to Lake Borgne, Louisiana. These samples were taken to evaluate the effects of past maintenance dredging operations on bottom communities of the Gulf Intracoastal Waterway. Objectives were to characterize the benthic fauna at 28 sites along the waterway, estimate biological productivity and food web relationships at each site and rate the disposal sites with regard to environmental impact of dredge disposal.

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ACC 852; TYPE ; YEAR 1961
TAYLOR, R.;
PHAEOPHYTA OF THE EASTERN GULF OF MEXICO.

BIBL PH.D. DISSERTATION. DUKE UNIVERSITY, DURHAM, NC. 300 PP.

KEYWORD: benthic flora

ABSTRACT: A three year survey beginning in 1958 was undertaken to study the Phaeophyta of the eastern Gulf of Mexico and Beaufort, North Carolina. The study included species determination and counts of Phaeophyta.

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ACC 1065; TYPE ; YEAR 1953
TAYLOR, W.R.;
SKETCH OF THE CHARACTER OF THE MARINE ALGAL VEGETATION OF THE SHORES OF THE GULF OF MEXICO.

BIBL FISH. BULL. 89:177-192.

KEYWORD: algae, biology, botany, flora, marine

ABSTRACT: Not available.

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ACC 2252; TYPE P; YEAR 1968
TAYLOR, J.L.; SALOMAN, C.H.;
SOME EFFECTS OF HYDRAULIC DREDGING AND COASTAL DEVELOPMENT IN BOCA CIEGA BAY, FLORIDA.

BIBL FISH. BULL. 67(2):213-41.

KEYWORD: seagrass, fishery, infauna, meiofauna, temperature, salinity, DO, chlorophyll, nutrient

ABSTRACT: Some effects of hydraulic dredging and coastal development on Boca Ciega Bay were discussed. It was estimated that the losses due to the filling of the Bay by hydraulic dredging has reduced Boca Ciega Bay by about 20% since 1950. In terms of annual production, the minimum estimates of loss were 25,841 metric tons of seagrass, 73 metric tons of fishery products and 1,091 metric tons of infauna, exclusive of meiofauna. Secondary losses due to sedimentation, turbidity, and domestic sewage was suggested to add additional inestimable losses.

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ACC 2332; TYPE P; YEAR 1974
TAYLOR, J.L.;
THE CHARLOTTE HARBOR ESTUARINE SYSTEM.

BIBL FLA. SCIENTIST 37(4):205-16.

KEYWORD: Charlotte, pollution, fish, temperature, salinity, DO, turbidity, nutrient, chemistry, mollusc, dredging, pollution

ABSTRACT: The Charlotte Harbor estuary was described. It is about 35 by 30 miles at the extremes with more than 200 miles of shoreline and comparatively little contamination. Vegetation includes salt marsh, mangrove and other peninsular Florida Gulf coast communities which are highly productive. Dredging and development had an inverse effect on more than 11,000 acres near Port Charlotte, Punta Gorda, Cape Coral and Fort Myers. Additional acres were closed to shell fishing because of pollution. Further manmade changes have threatened the value of the estuary as a fishing ground and hatchery for commercially valuable marine fishes.

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ACC 4142; TYPE P; YEAR 1983
TAYLOR, R.G.; MCMICHAEL, R.H.;
THE WIRE FISH-TRAP FISHERIES IN MONROE AND COLLIER COUNTIES, FLORIDA. 1983

BIBL FL. MAR. RES. PUBL. NO. 39. 19 P.

KEYWORD: biomass, demersal fish, commercial fishery, fish trap, fish, fishing effort, fishing gear, grouper, reeffish, biology

ABSTRACT: The commercial fish-trap fishery in Monroe and Collier Counties was investigated from November 1979 through September 1980. Fishing grounds, techniques, trap design, and catch composition are described. A total of 1,694 trap hauls containing 10,226 fishes of 111 species were monitored in the Monroe County fishery. Target fishes in Monroe County made up 69.2% of the total weight and 50.7% of the total number monitored. Three of the ten most numerically abundant species were target species. Serranids composed 71.0% of the target weight and

29.4% of the target number monitored in Monroe County. Average yield in Monroe County was 4.9 kg/haul; 3.4 kg were target species. Two hundred seventy trap hauls monitored in the Collier County fishery contained 3,111 fishes of 28 species. Target fishes in the Collier County fishery made up 70.1% of the total weight and 27.9% of the total number monitored. Epinephelus morio, the most abundant target species in the Collier County fishery, made up 91.0% of the target weight and 73.0% of the target number monitored. Average yield in Collier County was 4.4 km/haul; 3.1 kg were target fishes. Trap loss was estimated at 63% per year; however, the fishing life and catch rate of lost traps remain unclear. There was no significant difference between the mean fork lengths of five species of serranids taken from traps constructed of two different mesh sizes. Four percent of all fishes observed were dead or injured. The most commonly injured fishes were chaetodonids and pomacanthids.

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ACC 143; TYPE ; YEAR 1980
TECHCON, INC.;
ENVIRONMENTAL MONITORING PROGRAM FOR THE MOBIL OIL EXPLORATION AND PRODUCING SOUTHEAST, INC. TEST WELL IN MOBILE BAY, ALABAMA.

BIBL MOBIL OIL EXPLORATION AND PRODUCING SOUTHEAST, INC., NEW ORLEANS, LA. 7 VOLS.

KEYWORD: benthic community, biology, chemistry, geology, hydrography, physical process, sedimentology, water quality, offshore drilling, drilling

ABSTRACT: Mobil Oil Exploration and Producing Southeast, Inc. acquired four oil and gas leases in Mobile Bay, Alabama in 1969. Applications for drilling permits were filed in 1970 but the State of Alabama did not provide water quality certification and clear the way for drilling until 1978. The Mobile Bay Environmental Monitoring Program performed for Mobil Oil Southeast Exploration and Producing, Inc. by TechCon, Inc. has furnished both a clear demonstration of the clean operation of the test well and an excellent baseline for important characteristics of the Mobile Bay estuary. Based upon the results of these studies, it is evident that natural environmental variability induced by seasonal changes and periodic climatological extremes exceeds by far any effects which the drilling operation might have had on this estuary. Much better predictions can now be made of the impacts of additional test drilling and production in Mobile Bay. And finally, examination of this database identifies those aspects of the ecosystem which will provide meaningful information at a realistic cost during monitoring of future development of oil resources in the Bay.

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ACC 808; TYPE ; YEAR 1977
TEMPLE, R.F.; HARRINGTON, D.L.; MARTIN, J.A.;
MONTHLY TEMPERATURE AND SALINITY MEASUREMENTS OF CONTINENTAL SHELF WATERS OF THE NORTHWESTERN GULF OF MEXICO, 1963-1965.

BIBL NOAA TECH. REPORT NMFS SSRF-707.

KEYWORD: salinity, temperature, hydrography, physical oceanography

ABSTRACT: Monthly temperature and salinity data were collected at 8 transects totalling 40 stations west of the Mississippi River to the Texas-Mexico border from January 1963 to December 1965. In addition, 10 stations on 2 transects were occupied bimonthly in 1963 east of the Mississippi River.

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ACC 865; TYPE ; YEAR 1985
TEMPLE, R.F.; MARTIN, J.A.;
SURFACE CIRCULATION IN THE NORTHWESTERN GULF OF MEXICO AS DEDUCED FROM DRIFT BOTTLES.

BIBL NOAA TECH. REPORT IN PRESS.

KEYWORD: drift bottle, currents, wind direction, circulation

ABSTRACT: Over 7900 drift bottles have been released in the northwest Gulf of Mexico out to the 100 fathom line in an effort to describe the surface circulation patterns of this area. A total of 523 bottles have been returned within 15 days and 430 returned between 16-30 days after release. Additional bottles have been returned after 30 days.

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ACC 67; TYPE ; YEAR 1979
TERECO CORPORATION;
LITERATURE REVIEW OF MISSISSIPPI SOUND AND ADJACENT AREA.

BIBL U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, MOBILE, AL.

KEYWORD: biology, geology, hydrology, oceanography, physical process, bibliography

ABSTRACT: The present report summarizes published and pertinent unpublished information relative to environmental and biological characteristics of the nearshore sea bottom of the northeastern Gulf of Mexico. The study area extends from the East Pearl River, Mississippi to a point 14 miles east of Pensacola, Florida and from the shoreline to a depth of 22 fathoms. Preparation of the present report has entailed an extensive search of the available literature, including articles published in technical journals, a variety of reports to and by government agencies, and university dissertations (as listed in Dissertation Abstracts). All significant sources have been examined and abstracted for the pertinent information. Where major data gaps

existed in the published literature, unpublished information was sought by telephone or by visitation. From the published and unpublished information the narrative section of this report and the supportive maps have been prepared. The annotated references and an index have also been included.

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ACC 1037; TYPE ; YEAR 1980
TERECO CORPORATION;
LITERATURE SEARCH AND SELECTION OF A SITE OFF MOBILE, ALABAMA FOR DISPOSAL OF DRILLING MUD AND CUTTINGS.

BIBL TERECO CORPORATION, COLLEGE STATION, TX. 127 PP.

KEYWORD: bibliography, biology, gas, geology, meteorology, oceanography, oil, operations, drilling mud, drill cutting

ABSTRACT: This report presents the background, methodology and justification for the selection of a site off Mobile, Alabama, for the disposal of drilling mud and cuttings. The drilling mud and cuttings will come from 14 proposed wells to be drilled over the next seven years in Mobile Bay by Mobil Oil Exploration and Producing Southeast, Inc. The quantity of drilling mud and cuttings produced by each well is estimated to be 4,900 cubic yards; therefore, the total amount of waste for disposal is estimated to be 68,600 cubic yards. It is planned that the material will be disposed by hopper barges on a per well rate of approximately 700-900 cubic yards every six weeks.

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ACC 4162; TYPE P; YEAR 1985
TETRA TECH, INC.
FATE AND EFFECTS OF OIL DISPERSANTS AND CHEMICALLY DISPERSED OIL IN THE MARINE ENVIRONMENT.

BIBL PREPARED FOR THE MINERALS MANAGEMENT SERVICE (CONTRACT #14-12-0001-30157). SAN DIEGO, CA. 114 PP.

KEYWORD: hydrocarbon, oil spill, oil, oil residue, biological, physical, chemical, bioassay

ABSTRACT: The fate and effects of oil dispersants and dispersed oil are reviewed in this report. Field tests indicate that total petroleum hydrocarbon concentrations in the upper few meters of the water column (typically 1-60 ppm immediately after dispersant application, with concentrations decreasing rapidly with depth) decrease by at least an order of magnitude within several hours. Therefore, chemical dispersal of nearshore oil slicks may effectively prevent stranding of concentrated oil on the shore. Dispersants have been effective at removing oil stranded on beaches, but further research is needed to clarify the specific circumstances that lead to penetration of dispersed oil into sediment. Sublethal effects of modern oil dispersants on marine organisms have been demonstrated at dispersant concentrations of less than 100 ppm. Acute lethal concentration (LC50) values ranged from about 10 to 50,000 ppm. With initial average concentrations in the field expected to be about 0.5-2 ppm in the upper 3 m of the water column, relatively short-term and localized effects from dispersants alone are expected under actual field conditions. In field experiments, use of dispersants on nearshore oil slicks has usually decreased initial effects on subtidal and intertidal communities. Limited case history data indicate, in general, that adverse effects caused by dispersant or dispersed oil have been observed only in cases where dispersant has been applied directly to oiled shorelines. In most cases, the relatively short-term effects of chemical dispersal of oil slicks may be acceptable to mitigate long-term effects of untreated oil on the...

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ACC 2333; TYPE P; YEAR 1978
TEXAS INSTRUMENTS, INC.;
BENTHIC MACROINVERTEBRATES, IN: PRELIMINARY BIOLOGICAL REPORT FOR THE PROPOSED DESOTO SITE DEVELOPMENT.

BIBL REPT. PREPARED FOR FLORIDA POWER AND LIGHT CO. 586 PP.

KEYWORD: Charlotte, baseline study, seasonal, abundance, distribution, benthic, invertebrate, substrate, temperature, salinity, DO, turbidity, chemistry

ABSTRACT: A baseline biological study was conducted to develop a comprehensive data base reflecting historical trends and present ecological conditions in the study area. The field sampling program was designed to inventory flora and fauna of the study area and describe spatial and seasonal patterns in their abundances and distribution. Terrestrial as well as aquatic environments were sampled. The waters of the study area were divided into 3 regions: 1) the Peace River (typical flowing freshwater environment), 2) the Peace River estuary; and 3) Charlotte Harbor. The most obvious influence on distribution; composition and abundance of benthic macroinvertebrates in the Peace River stations was riverflow. Density of organisms was reduced during the periods of increased flow, when much of the infauna was dislodged from the substrate. The Peace River estuarine stations demonstrated a readily apparent transitional nature of the benthos. The Charlotte Harbor benthic communities were extremely diverse and complex. No one factor maintained an overall controlling influence on the community dynamics of benthic macroinvertebrates in this area. It did appear, however, that major controlling factors in Charlotte Harbor were salinity and substrate type, while in the Peace River, flow rate was the most influential factor.

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ACC 2148; TYPE P; YEAR 1981
THISTLE, D.; LEWIS, F.G., III;
LITERATURE SEARCH ON THE SOFT-BOTTOM BENTHOS OF THE OPEN WATERS OF THE GULF OF MEXICO. IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO, KEY BISCAYNE, FLORIDA, 30 SEPT.-5 OCT. 1979. D.K. ATWOOD (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LAB., MIAMI, FLA. VOL. IIB. P. 31.52.

KEYWORD: benthic, continental shelf, pollutant, community, fauna

ABSTRACT: This summary paper presents a review of soft-bottom benthic faunal studies from intertidal, continental shelf, and deep sea habitats of the Gulf of Mexico. Studies on the effects of pollutants on benthic communities are also included. The sparsity of information on the continental shelf land deep sea benthos is noted. The authors recommend intensive studies on the continental shelf benthos and a whole suite of studies on individual organism and community responses to pollutants.

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ACC 699; TYPE ; YEAR 1978
THOMPSON, P.A.; LEMING, T.D.;
SEASONAL DESCRIPTION OF WINDS AND SURFACE AND BOTTOM SALINITIES AND TEMPERATURES IN THE NORTHERN GULF OF MEXICO, OCTOBER 1972 TO JANUARY 1976.

BIBL NOAA TECH. REPT. NMFS SSRT-719. 44 PP.

KEYWORD: hydrography, meteorology, wind, salinity, temperature, seasonality

ABSTRACT: Seasonal surface and bottom salinities and temperatures in the northern Gulf of Mexico are described. The area surveyed, from October 1972 to January 1976, was between Mobile Bay, Alabama (long. 88 00' w), and Atchafalaya Bay, Louisiana (long. 91 30' w), from 5 to 50 fathoms (9 to 91 m).

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ACC 2193; TYPE P; YEAR 1980
THOMPSON, M.J.; GILLILAND, L.D; .
TOPOGRAPHIC MAPPING OF SHELF EDGE PROMINENCES OFF SOUTHEASTERN FLORIDA.

BIBL SOUTHEASTERN GEOL. 21(2):155-164.

KEYWORD: topographic, side scan sonar, biological, substrate, distribution, hole, coral, reef

ABSTRACT: The Sebastian Pinnale system, a zone of topographic prominences along the eastern continental shelf edge of Florida was mapped with side scan sonar and fathometer tracings. The major features of the zone were formed from combined geophysical and biological forces. Substrate distribution patterns are a result of deposition and erosion by the Florida Current. Periods of lower sea level caused differential erosion and dissolution of underlying limestone, forming holes and crater like depressions throughout the area. Major relief was found to be due to mounds of oolitic limestone and relict coral reefs.

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ACC 2202; TYPE P; YEAR 1974
THOMAS, J.R.;
BENTHIC SPECIES DIVERSITY AND ENVIRONMENTAL STABILITY IN THE NORTHERN INDIAN RIVER, FLORIDA.

BIBL MASTER'S THESIS. FLORIDA INSTITUTE OF TECHNOLOGY.

KEYWORD: depth, redox, sediment, temperature, DO, salinity, benthic, diversity

ABSTRACT: Benthic samples were taken with a ponar grab along a transect in the northern Indian River, Florida, during the summer of 1973 to examine benthic species diversity. Species richness and evenness varied inversely with water depth. Species richness was also significantly related to the redox potential of the sediments. Oxygen availability, as determined from the redox potential, was believed to be more important than environmental stability in regulating species diversity. A biological indicator was proposed to assess sediment instability due to dredging activities in the estuary.

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ACC 2484; TYPE P; YEAR 1961
THOMAS, L.P.;
DISTRIBUTION AND SALINITY TOLERANCE OF THE AMPHIURID BRITTLESTAR, OPHIOPHRAGNUS FILOGRANEUS (LYMAN, 1875).

BIBL BULL. MAR. SCI. 11(1):158-160.

KEYWORD: Monroe, distribution, echinoderm, seagrass, salinity, echinodermata

ABSTRACT: This short note gives the distribution of the amphiurid, Ophiophragmus filograneus, in Florida and discusses the ecology of the species. O. filograneus was collected from Whitewater Bay, Florida, at a salinity of 7.7 o/oo, a record low for echinoderms. The estuarine domain of echinoderms is reviewed.

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ACC 2485; TYPE P; YEAR 1964
THOMAS, L.P.;
AMPHIODIA ATRA (STIMPSON) AND OPHIONEMA INTRICATA LUTKEN, ADDITIONS TO THE SHALLOW WATER AMPHIURID BRITTLE STAR FAUNA OF FLORIDA (ECHINODERMATA: OPHIUROIDEA).

BIBL BULL. MAR. SCI. GULF & CARIBB. 14(1):158-167.

KEYWORD: Monroe, echinodermata

ABSTRACT: Ophionema intricata Lutken and Amphiodia atra (Stimpson) were reported for the first time from Florida waters. Descriptions and illustrations were presented, and Anaphiodia gyraspis H.L. Clark and A. limbata (Grube) were synonymized with A. atra. A discussion of the genus Amphiodia was included.

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ACC 2531; TYPE P; YEAR 1961
THOMAS. L.P.; MOORE, D.R.; WORK, R.C.;
EFFECTS OF HURRICANE DONNA ON THE TURTLE GRASS BEDS OF BISCAYNE BAY, FLORIDA.

BIBL BULL. MAR. SCI. GULF & CARIBB. 11(2):191-197.

KEYWORD: Dade, growth, storm, seagrass, hurricane

ABSTRACT: The dry weight of Thalassia testudinum washed ashore Biscayne Bay during Hurricane Donna of 1960 was estimated. Destructive agents other than wind were discussed. Although a great deal of Thalassia was washed ashore, damage to the Thalassia beds was considered light and a rapid growth rate contributed to an early recovery from storm damage.

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ACC 4191; TYPE P; YEAR 1980
THOMPSON, J.H., JR.; BRIGHT, T.J ;
EFFECTS OF AN OFFSHORE DRILLING FLUID ON SELECTED CORALS.

BIBL PROC. SYMP./RES. ENVIRON. FATE EF. DRILL. FLUIDS CUTTINGS 2:1044-1078.

KEYWORD: offshore drilling, drilling fluid, coral, agarcia

ABSTRACT: Not available.

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ACC 2038; TYPE P; YEAR 1978
THORHAUG, A.; SHROEDER, P.B.;
SYNERGISTIC EFFECTS OF SUBSTANCES EMITTED FROM POWER PLANTS ON SUBTROPICAL AND TROPICAL POPULATIONS OF THE SEAGRASS THALASSIA TESTUDINUM: TEMPERATURE, SALINITY, AND HEAVY METALS.

BIBL PRESENTED AT WASTE HEAT MGT. & UTILIZATION SECOND CONF., MIAMI BEACH, FLA. P. XI-B-72-90.

KEYWORD: seagrass, heavy metal, temperature, salinity

ABSTRACT: The effects of temperature and salinity on metal uptake in Thalassis testudinum were examined in an effort to determine synergistic relationships found in sites impacted by energy related industry. Metals used were zinc, cobalt, cesium, manganese, silver, and iron. Specimens were collected from the field but all work was done in the laboratory. Sublethal and lethal synergistic effects were found for several combinations of factors.

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ACC 2486; TYPE P; YEAR 1965
THORHAUG, A.L.;
ASPECTS OF THE DEVELOPMENTAL MORPHOLOGY AND BIOLOGY OF THE GENUS PENICILLUS, A GREEN MARINE ALGA.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL.

KEYWORD: Monroe, distribution, seasonal, reproduction, morphology, growth, depth, currents, sediment, algae

ABSTRACT: Penicillus in the Biscayne Bay and Florida Keys region was studied for distributions, relative densities, seasonal variations, and favorable environments. Plants were most abundant in the summer and on sandy or mud bottoms. Space competition was important in determining growth of Penicillus, as were depth, current velocity, and predation. Growth occurred through asexual reproduction by vegetative propagation. Morphology and growth were also studied in the lab revealing a growth rate of 0.7 cm/week and a mean height of 5.7 cm.

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ACC 2532; TYPE P; YEAR 1977
THORHAUG, A.; ROESSLER, M.A.;
SEAGRASS COMMUNITY DYNAMICS IN A SUBTROPICAL ESTUARINE LAGOON.

BIBL AQUACULTURE 12:253-277.

KEYWORD: Dade, seagrass, distribution, algae, sponge, coral, temperature, DO, turbidity, currents, nutrient, echinoderm

ABSTRACT: Temporal and spatial distribution of major plant and animal species in Biscayne Bay were investigated. The major plant species, and the standing crop and production of the plant material were determined. The major animal species were not equally distributed; in the nearshore turtle grass community, species of Pagurus, Heopanope, Hippolyte, Cerithium, Bulla, Prunum and Modulus were dominant. In mid-bay

where patchy turtle grass plus green algae occurred, Thor and Chondrilla were dominant. Near the fringing islands where tidal flow caused more oceanic conditions, the community was dominated by sponges, urchins and corals.

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ACC 4143; TYPE P; YEAR 1982
THUE, E.B.; RUTHERFORD, E.S.; BUKER, D.G.;
AGE, GROWTH, AND MORTALITY OF THE COMMON SNOOK, CENTROPOMUS UNDECIMALIS (BLOCH), IN EVERGLADES NATIONAL PARK, FLORIDA.

BIBL SOUTH FLORIDA RESEARCH CENTER REP. T-683. 32 P.

KEYWORD: biology, fish, recreational fishery, life history, snook, reproduction, recruitment, coastal

ABSTRACT: A study was made of age, growth and mortality of 325 snook, Centropomus undecimalis (Bloch), collected from sportfishermen in Everglades National Park from May 1976 through December 1979. Fish sampled ranged in length from 284 to 940 mm F.L. (mean = 643 +/-11 mm) and in weight from 0.7-11.6 kg (mean = 3.03 +/-0.17 kg). Females ranged in length from 464-940 mm (mean = 680 +/-25 mm) and in weight from 1.0-11.6 kg (mean = 3.64 +/-0.49 kg). Males ranged in length from 284-889 mm (mean = 632 +/-14 mm) and in weight from 0.7-7.2 kg (mean = 2.84 +/-0.18 kg). Mean lengths of fish were largest in spring and smallest in winter. There was no differences in mean length among areas of capture. Snook were aged by scale annuli. Annulus formation occurred in spring (March-May). Ages of fish were mainly four- and five-year olds. Recruitment to the fishery began at age two and was completed by age six. The oldest fish sampled was eight-years old. The overall sex ratio favored males 3/1, but the ratio decreased steadily with age. The mean age of females was significantly greater than the mean age of males. There were no differences in mean age of fish among areas of capture. Mean calculated growth of all snook was 375 mm F.L. in the first year and 57-90 mm F.L. thereafter. Females were significantly larger than males in calculated mean lengths at ages one through four. Calculated fish lengths at age differed among areas of capture. Fish taken from the Whitewater Bay-Coot Bay area were larger at ages one through four than fish of...

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ACC 1025; TYPE ; YEAR 1973
THURMAN, C.L.;
ASPECTS OF ANOXIC METABOLISM IN THE FIDDLER CRAB UCA MINAX AND THE DISTRIBUTION OF FIDDLE CRABS OF THE GENUS UCA ALONG THE NORTHERN COAST OF THE GULF OF MEXICO.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 75 PP.

KEYWORD: benthic fauna, crab, distribution, temperature, dissolved oxygen, stress

ABSTRACT: Fiddler crabs of the genus Uca have been identified and distributions described from 20 stations along the coast of the Gulf of Mexico from Tampico, Mexico to the Florida Keys. Laboratory experiments have been conducted to describe the anoxic metabolism of Uca minax. Laboratory animals held under various environmental conditions were monitored for levels of protein, lactic acid, glycogen, and LDH (lactate dehydrogenase). LD 50 experiments were conducted at various temperatures to describe the fiddler's ability to withstand anoxia.

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ACC 2316; TYPE P; YEAR 1974
TIFFANY, W.J.;
BRUSHY BAYOU AND LIDO KEY STUDY FOR CITY OF SARASOTA.

BIBL NEW COLLEGE OF THE UNIV. SO. FLA., ENVIR. STUD. PROG. REPT.

KEYWORD: Sarasota, mollusc, sponge, polychaete, echinoderm, salinity, DO, management

ABSTRACT: Macrobenthic data from Brushy Bayou and South Lido Key, Sarasota, Florida were compiled. The species collected of molluscs, sponges, polychaetes, echinoderms, oligochaetes, and bryozoa are listed and enumerated. Recommendations are made for the future management of the area.

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ACC 2317; TYPE P; YEAR 1974
TIFFANY, W.J.;
CHECKLIST OF BENTHIC INVERTEBRATE COMMUNITIES IN SARASOTA BAY WITH SPECIAL REFERENCE TO WATER QUALITY INDICATOR SPECIES.

BIBL CONTRIB. NO. 2, FLOWER GARDENS OCEAN RES. CTR., MAR. BIOMED. INSTIT., GALVESTON, TX. 123 P.

KEYWORD: Sarasota, invertebrate, benthic, sediment, community, temperature, salinity, DO, turbidity, water quality

ABSTRACT: This study presents a checklist of benthic marine invertebrates in Sarasota and Roberts Bays and characterizes their habitats by sediment types and community structure. Five species of marine benthic invertebrates were established as bioindicators for various unhealthy water quality parameters, and six species were correlated to healthy water conditions.

Sarasota Bay proved more stable and healthier than Roberts Bay.

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ACC 2318; TYPE P; YEAR 1978
TIFFANY, W.J.; HEYL, M.G.;
INVERTEBRATE MASS MORTALITY INDUCED BY A GYMNODINIUM BREVE RED TIDE IN GULF OF MEXICO WATER AT SARASOTA, FLORIDA.

BIBL J. ENVIR. SCI. HEALTH A13(9):635-662.

KEYWORD: Sarasota, invertebrate, mortality, red tide, DO

ABSTRACT: An outbreak of red tide (Gymnodinium breve) during September 1978, resulted in a mass mortality of certain invertebrates at Turtle Beach, Florida. The invertebrate kill was suggested to be due to the effects of the toxic dinoflagellate rather than other factors such as low DO.

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ACC 2349; TYPE P; YEAR 1978
TIFFANY, W.J.;
MASS MORTALITY OF LUIDIA SENEGALENSIS (LAMARK, 1816) ON CAPTIVA ISLAND, FLORIDA WITH A NOTE ON ITS OCCURRENCE IN FLORIDA GULF COASTAL WATERS.

BIBL FLA. SCIENTIST 41(1):63-64.

KEYWORD: Lee, mortality, invertebrate, echinodermata

ABSTRACT: A mass mortality of Luidia senegalensis occurred on February 18, 1977 on Captiva Island, Florida. The occurrence of the nine armed sea star in Florida Gulf coastal waters was discussed. The cause of the mass mortality was not determined.

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ACC 4258; TYPE P; YEAR 1980
TILLERY, J.B.;
ENVIRONMENTAL ASSESSMENT OF BUCCANEER GAS AND OIL FIELD IN THE NORTHWESTERN GULF OF MEXICO, 1975-1980. VOLUME 6: TRACE METALS.

BIBL NOAA/NMFS, GALVESTON, TX (USA). NOV. 1980.

KEYWORD: trace metal, sediment, suspended, oil and gas, pollution, heavy metal

ABSTRACT: Concentrations of Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Fe, Mn, Mi, Pb, Sb, Se, Sr, Tl and Zn were determined in surficial sediments, subsurface sediments, suspended particulate matter, seawater, produced brine, crude oil and various tissues of biological organisms collected seasonally near two petroleum production platforms. Concentrations of Ba, Cd, Cr, Co, Cu, Mn, Pb, Sr, Hg and Zn in surficial sediments have been related to the platforms or activities on them. Trace metal concentrations in suspended particulate matter are higher than in bottom sediments. Seawater trace metal concentrations are within the range reported for shelf waters. Produced brine discharge have concentrations of Ba, Cd, Cr, Fe, Hg, Mn, Sr, Tl and Zn that are higher than seawater and vary with time. No evidence of excessive bioaccumulation of trace metals in marine organisms from the area around the production platforms was established. Seasonal variations of trace metals were observed in various marine organisms.

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ACC 4275; TYPE P; YEAR 1980
TILLERY, J.B.; THOMAS, R.E.;
HEAVY METAL CONTAMINATION FROM PETROLEUM PRODUCTION PLATFORMS IN THE CENTRAL GULF OF MEXICO.

BIBL RES. ENVIRON. FATE AND EFFECTS OF DRILLING FLUIDS AND CUTTINGS CONF., LAKE BUENA VISTA, FL. 562-587.

KEYWORD: heavy metal, trace metal, sediment, petroleum, pollution

ABSTRACT: Southwest Research Institute conducted a multidisciplinary study of the long-term fate and effects of petroleum production platforms in the central Gulf of Mexico (Louisiana OCS). This report covers the trace metal investigations of that study. The objectives of the trace metal investigations of this program were (1) to determine the concentration of selected trace metals (Ba, Cd, Cr, Cu, Fe, Ni, Pb, Zn, V) in sediments and biotic samples, (2) to determine if these metal concentrations can be related to petroleum production activities (past and present), (3) to determine if bioaccumulation of trace metals has occurred and can be detected in species that inhabit the area around petroleum production platforms, and (4) to determine which marine species could be used as indicators of metal pollution.

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ACC 1033; TYPE ; YEAR 1964
TOLBERT, W.H.; SALSMAN, G.G.;
SURFACE CIRCULATION OF THE EASTERN GULF OF MEXICO AS DETERMINED BY DRIFT BOTTLE STUDIES.

BIBL J. GEOPHY. RES. 69(2):223-230.

KEYWORD: drift currents, drift pattern, drift measurement, surface currents, wind drift current, physical oceanography

ABSTRACT: During the 28-month interval from September 1960 through December 1962, drift bottles were released periodically from a stationary platform

located 20.4 km offshore from Panama City, Florida. Of the 951 bottles released, 276 or 29 per cent, were recovered. Approximately 67 per cent of the returns have been found along a 350-km section of coastline extending from Cape St. George west to the Florida-Alabama line; 20 per cent of the returns were from the Florida east coast and keys, and 12 percent were found along the coasts of Alabama, Mississippi, Louisiana, and Texas. Comparison of the drift-bottle data with local wind information indicates that the primary mechanism of surface water transport in the vicinity of the release point is wind-induced currents, which either transport the bottles to local beaches or to regions where permanent or semipermanent currents can displace them to western or southern shores. The results of this study are also compared with other drift-bottle studies conducted in the Gulf of Mexico.

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ACC 4144; TYPE P; YEAR 1978
TOPP, R.W.; INGLE, R.M.;
ANNOTATED LIST OF POST-1950 LITERATURE PERTAINING TO DISTRIBUTION OF GULF OF MEXICO FISHES.

BIBL FLA. DEPT. NAT. RES., MAR. RES. LAB. SPEC. SCI. REP. 33. 17 P.

KEYWORD: fish, distribution, commercial fishery, biology, ichthyoplankton, demersal fish, pelagic fish, recreational fishery

ABSTRACT: This list presents 204 references to published and unpublished reports containing ichthyofaunal lists from Gulf of Mexico localities. References dealing with specific taxa are not included. Each annotation designates the shelf subregion where collections were made, the number of species collected, and the gear used. An index to collection areas is included.

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ACC 559; TYPE ; YEAR 1952
TRASK, P.D.
STRENGTH OF SEDIMENTS IN THE GULF OF MEXICO.

BIBL IN: PROCEEDINGS 2ND CONFERENCE ON COASTAL ENGINEERING. P. 145-157

KEYWORD: continental shelf, engineering, geology, sedimentation, sediment

ABSTRACT: Not available.

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ACC 363; TYPE ; YEAR 1977
TREFRY, J.H.; FREDERICKS, A.D.; FAY, S.R.; BYINGTON, M.L.;
HEAVY METAL ANALYSIS OF BOTTOM SEDIMENT.

BIBL BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. FIRST QUARTERLY REPORT FOR BLM- MAFLA OCS STUDY.

KEYWORD: MAFLA, carbonate, chemistry, heavy metal, sediment texture

ABSTRACT: Not available.

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ACC 917; TYPE ; YEAR 1974
TREFRY, J.H.;
THE DISTRIBUTION OF POTENTIALLY TOXIC HEAVY METALS IN THE SEDIMENTS OF SAN ANTONIO BAY AND THE NORTHWEST GULF OF MEXICO.

BIBL MASTER'S THESIS. TEXAS A&M UNIVERSITY, COLLEGE STATION, TX. 105 PP

KEYWORD: cadmium, carbonate, carbon, copper, iron, lead, manganese, nickel, salinity, zinc, sediment, heavy metal

ABSTRACT: A total of 123 sediment samples were collected from 48 sites in San Antonio Bay and the Mississippi River delta between June, 1972 and July, 1973 and analyzed for the heavy metals Fe, Mn, Pb, Zn, Cd, Cu and calcium carbonate and organic carbon. Samples were collected during cruise 73-A-9 of the R/V Alaminos and cruise 73-L-2 of the R/V Longhorn. Data include scatter plots of various heavy metals.

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ACC 2150; TYPE P; YEAR 1981
TREFRY, J.H.;
A REVIEW OF EXISTING KNOWLEDGE ON TRACE METALS IN THE GULF OF MEXICO. IN: PROC. OF A SYMP. ON ENVIRON. RESEARCH NEEDS IN THE GULF OF MEXICO, KEY BISCAYNE, FLORIDA, 30 SEPT.-5 OCT. 1979. D.K. ATWOOD (CONVENER).

BIBL NOAA/ERL, ATLANTIC OCEANOGRAPHIC AND METEOROLOGICAL LAB., MIAMI, FLA. VOL. IIB. P. 225-259.

KEYWORD: trace metal, sediment, carbonate

ABSTRACT: This summary paper reviews the state of knowledge on the trace metals in the Gulf of Mexico. Sediment metal studies for the Gulf of Mexico show that carbonate rich Florida shelf to be almost devoid of sedimentary metals in great contrast to the Mississippi Delta and outer shelf areas to the west of the Delta. The author notes that these differences are strictly a

function of source material, in that >90% of the massive sediment load of the Mississippi River is deposited in an area <1% of the Gulf. The scarcity of available data is noted, and future research needs are outlined.

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ACC 2151; TYPE P; YEAR 1979
TREFRY, J.H.; FELDHAUSEN, P.H.;
TRACE METAL GEOCHEMISTRY OF FLORIDA GULF COAST SEDIMENTS.

BIBL FLA. SCI. 42(SUPPL. 1):21.

KEYWORD: trace metal, geochemistry, distribution, heavy metal, sediment, organic carbon

ABSTRACT: Over 400 sediment samples from the West Florida continental shelf were analyzed for total and leachable Ba, Cd, Cr, Cu, Fe, Ni, Pb, V, and Zn to determine the distribution and abundance of heavy metals in shelf sediments. Total metal concentrations showed an increasing trend offshore and to the west, which was correlated with increased abundance of sediment clays and organic carbon. Distribution trends are presented for each metal and the proportion of metal leached, and correlated with sediment type. Five trace metal regions and several modes of metal accumulation are identified.

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ACC 2152; TYPE P; YEAR 1981
TREFRY, J.H.; TROCINE, R.; METZ, S.;
TRACE METAL ANALYSIS OF BOTTOM SEDIMENT.

BIBL FINAL REPT. FOR BLM, SOUTHWEST FLORIDA OUTER CONTINENTAL SHELF STUDY. 26 P

KEYWORD: trace metal, sediment, carbonate, grain size, barium, cadmium, copper, iron, nickel, chromium, vanadium, lead, zinc

ABSTRACT: Sediment samples from 15 sites on the southwest Florida continental shelf were analyzed for Ba, Cd, Cr, Cu, Fe, Ni, Pb, V, and Zn to provide baseline data on sediment trace metal contents of areas proposed as oil drilling sites. All samples were analyzed after leaching with nitric acid. Trace metals concentrations throughout the area were low and uniform, due to the high carbonate fraction (>90% at 13 or 15 sites) of the sediment, which is characteristic of the area. The potential biological availability of sediment metals is assessed.

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ACC 4145; TYPE P; YEAR 1983
TRENT, L.; WILLIAMS, R.O.; TAYLOR, R.G.; SALOMAN, C.H.; MANOOCH, C.S. III;
SIZE, SEX RATIO, AND RECRUITMENT IN VARIOUS FISHERIES OF KING MACKEREL, SCOMBEROMORUS CAVALLA, IN THE SOUTHEASTERN UNITED STATES.

BIBL FISH. BULL. 81(4):709-721

KEYWORD: biology, fish, commercial fishery, king mackerel, recruitment, seasonality, reproduction, distribution, recreational fishery, length, spawning

ABSTRACT: Data from over 54,000 king mackerel, Scomberomorus cavalla, were analyzed to evaluate spatial & temporal variations in size and sex composition in seven areas of the southeastern United States. Data ware obtained from recreational hook-and-line and gill net fisheries of south Florida. Of the three types of gear, recreational hook and line appeared to be the least selective and gill net the most selective for particular sizes fo king mackerel. Size composition in each area varied considerably among months; patterns of size change were discernible in some areas. Sizes of king mackerel varied significantly among areas and years. Catches from south and northwest Florida contained high proportions of small fish <700 mm FLO; those from Texas and North Carolina contained mostly medium-sized fish (700-900 mm FL). Mean lengths of king mackerel were larger in 1978 than in 1977 in all areas except northwest Florida. In northwest Florida, modal fork lengths were 749 mm in 1968-69, 649 mm in 1977, and 549 mm in 1978. The majority of the smallest fish (400-600 mm FL) were recruited to the fisheries in Florida, but the range and areas of abundance of king mackerel smaller than this are known. For purposes of evaluating effects of minimum size regulations, the kin population was divided into groups (the Florida winter, immature, spawning, and Louisiana groups). Females dominated catches in all size groups and in all areas and years, except for south Florida in 1978. Annual, or ranges of annual, estimates of percentage female by area were as follows: Texas, 60.8-62.2%; Louisiana, 91.9-92.2%; northwest Florida, 57.1-75.1%., South Fda, 40.2-75.4%.

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ACC 2350; TYPE 0; YEAR 1978
TSUI, P.T.P.; BREEDLOVE, B.W.;
USE OF THE MULTIPLE.PLATE SAMPLER IN BIOLOGICAL MONITORING OF THE AQUATIC ENVIRONMENT.

BIBL FLA. SCIENTIST 41(2):110-116.

KEYWORD: Lee, biological, invertebrate

ABSTRACT: Field studies revealed that the diversity of macroinvertebrates collected by the multiple-plate sampler is time dependent. Pilot studies to determine optimum exposure period were recommended. Comparisons of samples of macroinvertebrates collected by the multiple-plate sampler and the petite ponargrab

from both lentic and lotic environments resulted in significant differences.

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ACC 2153; TYPE P; YEAR 1977
TURGEON, D.D.; LYONS, W.G.;
A TROPICAL MARINE MOLLUSCAN ASSEMBLAGE IN THE NORTHEASTERN GULF OF MEXICO

BIBL BULL. AN. MALACOL. UNION INC. 88-89. (ABSTRACT).

KEYWORD: mollusc, reef, fouling, sediment, community, assemblage

ABSTRACT: Two hundred and fifty-one molluscan species, including 179 gastropods. 63 bivalves, 8 polyplacophorans, and 1 scaphopod, are reported from the Florida Middle Ground, a reef in the northeastern Gulf of Mexico. Specimens occurred as epizooics on corals, among fouling organisms, and in biogenic sediments in three samples from the reef. Of the gastropod species, 64% belong to 9 families of typically small taxa (micromolluscs). Most bivalves are reef-inhibiting epizooics or borers along with some sponge dwellers and small species adapted for living among coarse sediments. This molluscan assemblage has distinct tropical affinities with nearly all species also occurring commonly in shallow water communities in the Florida Keys, Bahamas, and Caribbean.

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ACC 2487; TYPE P; YEAR 1976
TURMEL, R.J.; SWANSON, R.G.;
THE DEVELOPMENT OF RODRIGUEZ BANK, A HOLOCENE MUDBANK IN THE FLORIDA REEF TRACT.

BIBL J. SEDIMENT. PETROL. 46(3):497-518.

KEYWORD: Monroe, sediment, wave, algae, reef, hydrography, flora, geology, geologic history

ABSTRACT: Rodriguez Bank off Key Largo, Florida consists of unconsolidated calcareoud sediments deposited during a period of sea level rise with minimal wave action. Unlike modern coral-algal reefs, the bank has no rigid organic framework, but has accumulated as direct and indirect results of plants. Algae contribute most of the sediment. Four ecologic zones are described and their importance in the reef building is assessed. Although the biotic assemblages and hydrography have changed since its initial development, the bank has become a stable topographic feature.

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ACC 49; TYPE ; YEAR 1982
TURNER, R.E.; ALLEN. R.L.;
BOTTOM WATER OXYGEN CONCENTRATION IN THE MISSISSIPPI RIVER DELTA BIGHT.

BIBL CONTRIB. MAR. SCI. 25:161-172.

KEYWORD: coastal zone, continental shelf, dissolved oxygen, hydrography, hypoxia, oceanography, physical process

ABSTRACT: Bottom water oxygen concentrations in the Mississippi River Delta Bight are commonly below saturation values. Hypoxic conditions (less than 3 mg/l) most often occur in shallow depths, west of the delta during summer. The hypoxic layer may be only a few meters thick and located on the bottom. An unusual midwater oxygen-depleted zone was observed south of Mobile Bay. The oxygen-minimum layer from deep water in the Gulf of Mexico may connect with low oxygen zones at the shelf break. In situ decomposition of material sinking from the surface layers is the most likely major oxygen consuming process. Lack of vertical mixing due to stratification probably contributes to the hypoxic summer conditions when oxygen concentration values are lowest.

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ACC 50; TYPE ; YEAR 1982
TURNER, R.E.; ALLEN, R.L.;
PLANKTON RESPIRATION RATES IN THE BOTTOM WATERS OF THE MISSISSIPPI RIVER DELTA BIGHT.

BIBL CONTRIB. MAR. SCI. 25:173-179.

KEYWORD: benthic community, biology, continental shelf, plankton, respiration rate, sediment, dissolved oxygen, suspended, chlorophyll, phytoplankton

ABSTRACT: Community plankton respiration (CPR) rates in the bottom waters of the Mississippi River Delta Bight ranged from 0.12 to 8 mg oxygen m-3 h-1 in July and November, 1976. Mean values were similar on both cruises, and between east and west halves of the delta in July. The observed rates are high enough to influence significantly and possibly dominate factors influencing oxygen concentrations. The regional low oxygen concentrations that commonly occur are probably influenced as well by benthic respiration and by stratification. The role of suspended sediments in deriving variations in average CPR rates appears to be of minor importance since equal rates occurred in areas with and without a nepheloid layer. In July CPR was correlated with variations in chlorophyll a concentrations, thus indicating that phytoplankton sinking is probably a major factor determining regional variations in CPR.

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ACC 144; TYPE ; YEAR 1983
TURNER, R.E.; BRODY, M.S.;
HABITAT SUITABILITY INDEX MODELS: NORTHERN GULF OF MEXICO BROWN SHRIMP AND WHITE SHRIMP.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. FWS/OBS-82/10-54. 24 PP.

KEYWORD: biology, coastal water, continental shelf, habitat, life history, mathematical model, shrimp fishery, brown shrimp, management

ABSTRACT: The habitat use information and habitat suitability index (HSI) models in this report on northern Gulf of Mexico brown shrimp and white shrimp are intended for use in impact assessment and habitat management. The models were developed from a review and synthesis of existing information and are scaled to produce an index of habitat suitability between 0 (unsuitable habitat) and 1 (optimally suitable habitat). Assumptions used to transform habitat use information into the HSI model and guidelines for model applications, including methods for measuring model variables, are described. These models are hypotheses of species-habitat relationships, not a statement of proven cause and effect relationships. The models have not been field-tested, but have been applied to four hypothetical data sets which are presented and discussed. For this reason, the U.S. Fish and Wildlife Service encourages model users to convey comments and suggestions that may help increase the utility and effectiveness of this habitat-based approach to fish and wildlife management.

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ACC 4237; TYPE P; YEAR 1979
TURNER, J.T.; COLARD, S.B.; WRIGHT, J.C.; MITCHELL, D.V.; STEELE, P.;
SUMMER DISTRIBUTION OF PONTELLID COPEPODS IN THE NEUSTON OF THE EASTERN GULF OF MEXICO CONTINENTAL SHELF.

BIBL BULL. MAR. SCI. 29(3):287-297.

KEYWORD: distribution, neuston, abundance, salinity, zooplankton, crustacean

ABSTRACT: Twelve species of pontellid copepods (Calanopia americana, Labiodcera acutifrons, L. aestiva, L. neri, L. scotti, Pontella atlantica, P. meadi, P. mimocerami, P. securifer, Pontellina plumata, Potellopsis brevis and P. perspicax) were collected in summer of 1976 in 158 neuston samples from the eastern continental shelf of the Gulf of Mexico. Preadults, most of which were Pontella meadi copepodids, were more abundant than adults, accounting for 77-88% of the total number of pontellids collected. This, together with spermatophore attachment to 70-85% of the P. meadi females collected indicates that summer is a period of active breeding for this species. There were no clear trends of abundance at the surface vs. time of day for either adults or juveniles. Off Mobile Bay, Panama City and Cedar Key (Florida USA), the pontellid assemblages were dominated by species generally considered to be coastal, but off Tampa Bay, 5 pontellid species previously thought to exhibit oceanic distributions were collected in low salinity (34.42-35.54 per mill.) surface waters over the continental shelf. Among these was P. atlantica for which there are no prior reliable reports from the Gulf of Mexico. The presence of oceanic species in continental shelf waters suggests that broader zooplankton sampling is needed to define zooplankton-water mass relationships in the eastern Gulf of Mexico.

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ACC 2488; TYPE P; YEAR 1972
TURNEY, W.J.; PERKINS, B.F.;
MOLLUSCAN DISTRIBUTION IN FLORIDA BAY. SEDIMENTA III, THE COMPARATIVE SEDIMENTOLOGY LABORATORY.

BIBL UNIVERSITY OF MIAMI. DIVISION OF MARINE GEOLOGY AND GEOPHYSICS

KEYWORD: Monroe, salinity, wind, mollusc, crab, sponge, algae, currents, echinoderm, circulation, seagrass

ABSTRACT: Within Florida Bay 4 subenvironments were designated according to the physical characteristics of salinity and variability of salinity, water circulation, and wind. The fauna of Florida Bay was found to be dominantly molluscan, principally gastropods and bivalves which were represented by about 100 genera and 140 recognized species. A few "index species" and several "consistently common species" defined 4 molluscan suites whose distributions seemed to be controlled by the environmental influences characterizing the 4 subenvironments. Molluscan debris was determined to comprise 58 to 95% of the sediment particles greater than 1/8 mm. It was suggested that the disintegration process is almost entirely organic and affected by crabs, boring sponges, perforating algae, holothurians, worms, and Thalassia testudinum roots. Thin-shelled bivalves were observed to break down more rapidly than thick shelled bivalves and gastropods.

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ACC 2489; TYPE P; YEAR 1981
TYSON, R.;
SEDIMENTS OF A FLORIDA BAY BASIN.

BIBL MASTER'S THESIS. UNIVERSITY OF SOUTHERN FLORIDA.

KEYWORD: Monroe, sediment, mineralogy, mollusc, grain size, seagrass, depth, foraminifera

ABSTRACT: Forty-four surface sediment samples from a basin in southeastern Florida Bay exhibited variations in texture, mineralogy, and molluscan assemblages. Sediment grain size analysis separated the samples into three major groups. Aragonite averaged approximately 51% in the silt and clay sized fractions. Bivalves were shown to prefer small grain sized sediments. A direct correlation between bivalve and Thalassia distribution was associated with the trapping of fine grained sediments by seagrass beds. Epifauna gastropods exhibited uniform distribution. Correlations among sand, depth, rock fragments, foraminifera, Cerithium, Halimeda, and calcite content are identified for sand environments; correlations among other variables are also cited for silt subenvironments.

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ACC 2369; TYPE P; YEAR 1979
U.S. ARMY ENGINEER DISTRICT, JACKSONVILLE, FLORIDA,.
DRAFT ENVIRONMENTAL IMPACT ASSESSMENT, ON: PERMIT APPLICATION FOR DELTONA CORP.'S RESIDENTIAL DEVELOPMENT IN WETLANDS NEAR MARCO ISLAND, FLORIDA.

BIBL

KEYWORD: Collier, coastal, development

ABSTRACT: The permit application described was a redesign by the Deltona Corporation in order to obtain alternate lots for property owners impacted by the denial of a previous application in 1976. Implementation of the proposal would result in the loss of a total of 4,029 acres of wetlands comprised of 1,392 acres of highly productive tidal mangroves and 2,637 acres of other mangroves and freshwater marshes. It was estimated that this would reduce local estuarine productivity by about 20%. A prime wading bird habitat would be lost, resulting in a possible decline in their nesting success in a large rookery nearby. The existing freshwater input into portions of the coastal waters may be reduced up to 30%. Alternatives to the proposed plan were suggested to confine the development to upland locations within the immediate vicinity and design changes to reduce the size of the wetlands' development.

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ACC 2288; TYPE P; YEAR 1978
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT;
ECOLOGICAL COMPARISON OF BEACHES, OFFSHORE BORROW SITES, AND ADJACENT BOTTOM AT ANNA MARIA ISLAND AND TREASURE ISLAND, FLORIDA.

BIBL
IN: PHASE I. U.S. ARMY CORPS OF ENGINEERS.

KEYWORD: sediment, grain size, benthic, diversity, invertebrate, temperature, salinity, depth, stress

ABSTRACT: A comparison was made between the sediment of Anna Maria Island beach, the proposed borrow area, and Treasure Island borrow pit. Texture (grain size) and statistical factors that include mean grain size, sorting, skewness, and kurtosis were compared. A statistical comparison of benthic species richness and species diversity between Treasure Island borrow areas and historical regional data was also conducted. In addition a statistical comparison of benthic species richness and species diversity between Anna Maria Island proposed borrow sites and historical regional data was made. Date on existing biological communities at Anna Maria and contour maps of the 4 separate borrow sites at Treasure Island were provided. Four years after dredging, the benthos of the borrow pits at Treasure Island were determined to be in some stage of slow recovery, but faunal density was well below previous data. It was suggested that these dredged holes support a progressively more normal benthic fauna as they fill to the level of surrounding bottom and become covered with sediments that are predominantly sand and shell. Benthos of sites (borrow) of Anna Marie proved to be more diverse than those recorded from stations in any other area at Treasure Island. Both islands were found to support typical Gulf beach invertebrates and were high energy zones. Recommendations on procedures for the proposed beach nourishment were made.

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ACC 876; TYPE ; YEAR N/A
U.S. ARMY CORPS OF ENGINEERS, COASTAL ENGINEERING RESEARCH CENTER;
SEDIMENT ANALYSIS STATISTICS FILE.

BIBL U.S. ARMY CORPS OF ENGINEERS, COASTAL ENGINEERING RESEARCH CENTER, FORT BELVOIR, VA.

KEYWORD: sediment texture, sediment, grain size, suspended

ABSTRACT: Data is taken by field surveys by C.E.R.C. field parties, district survey parties, or under contract by commercial firms. The sand samples analyzed are grab samples taken from beaches or bottom surfaces, suspended samples taken from water, or core samples obtained from offshore or onshore locations. Size analysis are made by mechanical (hydrolic) measurement of fall velocity. Applications programs applied to raw data are: plot sediment size analysis graph; edit, verify, reformat, list geological sample information; reduce raw data in form of a digitalized decay vs. time curve to a sediment size frequency distribution and computes statistical moments of the distribution.

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ACC 635; TYPE ; YEAR 1984
U.S. ARMY CORPS OF ENGINEERS;
DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT: EXPLORATION AND PRODUCTION OF HYDROCARBON RESOURCES IN COASTAL ALABAMA AND MISSISSIPPI.

BIBL U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, MOBILE, AL. 615 PP

KEYWORD: biology, coastal zone, drilling, exploration, geology, hydrocarbon, hydrology, socioeconomic, resource

ABSTRACT: The U.S. Army Corps of Engineers have produced a draft Environmental Impact Statement in preparation for the leasing of tracts and the activities related to hydrocarbon production and exploration along the coast of Alabama & Mississippi. A brief background of the area affected and the anticipated activities that may impact the environment is presented along with proposed mitigation measures.

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ACC 350; TYPE ; YEAR 1973
U.S. ARMY CORPS OF ENGINEERS;
REPORT ON GULF COAST DEEP WATER PORT FACILITIES, TEXAS, LOUISIANA, MISSISSIPPI, ALABAMA, AND FLORIDA.

BIBL U.S. ARMY CORPS OF ENGINEERS, LOWER MISSISSIPPI VALLEY DIVISION. 136 PP.

KEYWORD: benthos, chemistry, geology, meteorology, oceanography, port

ABSTRACT: Not available.

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ACC 4146; TYPE P; YEAR 1982
U.S. DEPT. OF COMMERCE; NAT. OCEANIC & ATMOSPHERIC ADM., ET AL;
THREE REPORTS CONCERNING THE TORTUGAS SANCTUARY STUDIES, 1981-1982

BIBL NOAA TECH. MEM. NMFS-SEFC-104. 179 P.

KEYWORD: pink shrimp, crustacean, commercial fishery, biology, landings (pounds), life history, invertebrate, epifauna, benthic, ecology

ABSTRACT: The tortugas shrimp sanctuary was initiated to protect important pink shrimp nursery areas of the Tortugas shrimp grounds from overfishing. This report sought to historically profile the Tortugas shrimp fishers; examine the regulatory history of the sanctuary area; determine size ranges of shrimp inside and outside the sanctuary area; and determine the effectiveness of the established sanctuary line. Distribution of shrimp size varied with location and season in the Tortugas sanctuary. Small shrimp dominated the population inside and outside the sanctuary boundaries. Catch per unit effort was variable and highest values were reported from inside the sanctuary. Reproductive activity was greatest during September and October. Commercial landings for the area were relatively stable for the 21-year period. Fishing effort averaged 16.5 days/yr with little fluctuation over a 20-period. During 1981, catch, size distribution, and relative abundance were distinct from all other years except 1960.

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ACC 2370; TYPE P; YEAR 1982
U.S. DEPT. OF COMMERCE;
GOLDEN GATE/FAKA UNION PROJECT: PROGRESS REPT.

BIBL SUBMITTED TO U.S. ARMY CORPS OF ENGINEERS. 22 P.

KEYWORD: Collier, fishes, crustacean, sediment, temperature, salinity, DO, depth, currents

ABSTRACT: A sampling program was designed to assess the effects of excessive freshwater discharge into Faka Union Bayon the spawning and growth of estuarine fishes and macrobenthos. Surface and bottom trawls were taken monthly from 16 stations each in Faka Union Bay, Chokoloskee Bay, and Goodland Bay to collect fishes and crustaceans. Twenty-one total sites were sampled monthly with roller trawl in Pumpkin Bay. Faka Union Bay, and Fakahatchee Bay for epibenthic fauna. At the time of this progress report, the first two monthly samples had been collected and data was being analyzed.

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ACC 233; TYPE ; YEAR 1982
U.S. ENVIRONMENTAL PROTECTION AGENCY;
DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PENSACOLA, FL, MOBILE, AL, AND GULFPORT, MS DREDGED MATERIAL DISPOSAL SITE DESIGNATION.

BIBL ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C. 184 PP.

KEYWORD: dredge spoil, dredging, ecology, management, turbidity, suspended, sediment, benthos

ABSTRACT: The purpose of the action is to provide an environmentally acceptable ocean location for the disposal of dredged materials, which complies with the environmental impact criteria of the Ocean Dumping Regulations (40CFR220-229). Adverse environmental effects of the proposed action may include: (1) mounding, (2) smothering of some members of the

benthos, and (3) increases in suspended sediment concentration. Adverse impacts within the site are unavoidable, but the disposal operation will be regulated to prevent unacceptable environmental degradation outside the site boundaries. The existing sites fulfill all criteria for site selection and are preferred over the alternative sites and areas based on evaluation of EPA's 11 site-specific criteria, and historical use. However, because potential impacts to the benthic community may be lessened at a larger Pensacola site it is recommended that this site be selected instead of the existing site. The Pensacola nearshore alternative site is a geographic extension of the existing site and covers an area previously used for disposal of dredged material.

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ACC 2371; TYPE P; YEAR 1975
U.S. ENVIRONMENTAL PROTECTION AGENCY;
FIELD STUDIES: PARKSHORE AND CLAM BAY SYSTEMS, NAPLES, FLORIDA.

BIBL U.S. EPA, REGION IV, SURVEILLANCE AND ANALYSIS DIV., ATHENS, GA.

KEYWORD: Collier, dissolved oxygen, nutrient

ABSTRACT: No dissolved oxygen violations were experienced in either the Parkshore or Clam Bay systems in Naples, Florida during the November 11-17, 1975 period. Nutrient concentrations in both estuarine systems represented reasonably pollution free levels. Hydrographic studies revealed that the Clam Bay system does not experience the norms of local tidal ranges. Maximum tidal ranges were 2.5 ft in Parkshore and 1.0 ft in Clam Bay. Tha Clam Bay system does not dewater to the local low water level. Sediment chemical composition revealed little difference between the Parkshore and Seagate Systems. Concentrations were in the range of those found in similar canal systems investigated by the EPA.

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ACC 2372; TYPE P; YEAR 1975
U.S. ENVIRONMENTAL PROTECTION AGENCY;
AN EVALUATION OF PHYSICAL, CHEMICAL AND BIOLOGICAL ASPECTS OF CANALS AND ASSOCIATED WATERWAYS AT MARCO ISLAND, FLORIDA.

BIBL U.S. EPA, REGION IV, SURVEILLANCE AND ANALYSIS DIV., ATHENS, GA.

KEYWORD: Collier, physical, chemical, carbon, invertebrate, phytoplankton, ichthyoplankton, temperature, salinity, DO, chemistry, biological

ABSTRACT: Studies at Marco Island described the following detrimental factors of canal systems: poor circulation, dissolved oxygen depletion, and water quality standard violations. Ammonia nitrogen (NH3) concentrations were elevated indicating anaerobic conditions. The center troughs of canal systems acted as a trap, collecting excessive silt and organics. This build up affected the bottom dwelling biota and water quality. Canals in general were importing carbon in amounts dependent upon each canal's proximity to the major carbon source (mangroves). Macroinvertebrates exhibited a longitudinal decline in numbers and species from the mouth to the landward end of the canal.

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ACC 2373; TYPE P; YEAR 1977
U.S. ENVIRONMENTAL PROTECTION AGENCY;
FIELD STUDIES: PARKSHORE AND CLAM BAY SYSTEMS, NAPLES, FLORIDA.

BIBL U.S. EPA, REGION IV, SURVEILLANCE AND ANALYSIS DIV., ATHENS, GA.

KEYWORD: Collier, hydrographic, benthic, community, sediment, phytoplankton, chlorophyll, invertebrate, temperature, salinity, DO, chemistry

ABSTRACT: An evaluation of hydrographic effects of the connection opened between Clam and Doctors Bays and the effects of over water structures at Parkshore Development on benthic communities in Doctors Bay was presented. No significant differences between sampling stations and habitat (shallow vs. deep) for numbers of taxa were found. The finer sediment was determined to be the principal factor affecting community differences at the deep and shallow water stations. Phytoplankton chlorophyll 'a' (mg/cubic meter) concentrations were higher in 1975 than in 1977 but were not significantly different. Chlorophyll 'a' concentrations in Doctors Bay, Clam Bay, and in the canal systems were all lower than the average concentration of 17 mg/sq. meter in Gulf inshore waters.

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ACC 793; TYPE ; YEAR 1975
U.S. ENVIRONMENTAL PROTECTION AGENCY;
ENVIRONMENTAL AND RECOVERY STUDIES OF ESCAMBIA BAY AND THE PENSACOLA BAY SYSTEM, FLORIDA: BENTHIC MACROINVERTEBRATES.

BIBL ENVIRONMENTAL PROTECTION AGENCY, ATLANTA, GA.

KEYWORD: benthic community, benthic fauna, biology, ecology, distribution, species composition, invertebrate, sediment

ABSTRACT: The objective of this study was to determine if distinct communities existed in Escambia Bay and the distribution of these communities. Three major benthic habitats were defined based on sediment patterns in the Bay. These include a broad central mud plain, a sand transition zone close to shore and the sandy shelf along the Bay margin. Comparisons were made between assemblages of organisms in Escambia Bay and other Bays in the Pensacola Bay System as well as other bays in the Gulf of Mexico.

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ACC 383; TYPE ; YEAR 1977
U.S. FISH AND WILDLIFE SERVICE;
COASTAL MARSH PRODUCTIVITY, A BIBLIOGRAPHY.

BIBL U.S. FISH AND WILDLIFE SERVICE, OFFICE OF BIOLOGICAL SERVICES, WASHINGTON, D.C. 300 PP.

KEYWORD: bibliography, biology, ecology, marsh, productivity, coastal

ABSTRACT: Not available.

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ACC 2533; TYPE P; YEAR 1958
UNIVERSITY OF MIAMI MARINE LABORATORY;
INVESTIGATION OF POSSIBLE EFFECTS ON THE MARINE ENVIRONMENT OF DREDGING AND FILLING THE RAGGED KEYS.

BIBL REPT. TO FLA. ST. BD. CONSERV.

KEYWORD: Dade, fish, invertebrate, algae, currents, substrate, salinity, temperature, seagrass, drilling mud

ABSTRACT: Checklists of fishes, marine invertebrates, algae and marine flora were given for the Ragged Keys vicinity. The Ragged Keys and the marine environment immediately adjacent to them were found to support a rich and varied group of plants and animals. Currents were believed to have, by their sorting of the substrate, created many ecological niches not usually found inside the outer reef. The reported possible effects of dredging and filling include: the destruction of channels now extensively utilized by boats; a shift of currents to the north and south around the fill, causing scouring and redistribution of bottom material beyond the immediate dredge and fill zone; conditions of greater extremes in salinity and temperatures than now prevail in one region of Biscayne Bay; and an overall destruction of the marine environment.

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ACC 4283; TYPE P; YEAR 1984
UNKNOWN;
RIGS-TO-REEFS. ONE ASPECT OF A SOUND OCS PROGRAM. ADAPTED FROM REMARKS BY INTER. SECY W.P. CLARK BEFORE RECREATIONAL, ENVIRONMENTAL ENHANCEMENT & FISHING IN THE SEAS TASK FORCE (M).

BIBL THE OIL DAILY 8187:4 (84/07/16).

KEYWORD: continental shelf, drilling, offshore drilling, artificial reef

ABSTRACT: Not available.

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ACC 4284; TYPE P; YEAR 1984
UNKNOWN;
ECO-SENSITIVE AREAS DEFERRED FOR '85 SALES IN GULF OF MEXICO.

BIBL PLATT'S OILGRAM NEWS SERVICE 62(76):3.

KEYWORD: oil, ecosystem, nursery area, live bottom, reef, seagrass, wetland

ABSTRACT: Not available.

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ACC 4285; TYPE P; YEAR 1983
UNKNOWN;
DRILLING LIMITS ASKED FOR THE FLOWER GARDEN BANKS, THE MOST NORTHERLY LIVING CORAL REEFS IN THE GULF OF MEXICO (M).

BIBL THE OIL DAILY 7950:2.

KEYWORD: drilling, coral, reef, offshore drilling

ABSTRACT: Not available.

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ACC 4286; TYPE P; YEAR 1982
UNKNOWN;
FLORIDA OPPOSES INTERIOR'S AREA-WIDE LEASING.

BIBL OIL GAS J. 80(44):45.

KEYWORD: oil, continental shelf, oil spill

ABSTRACT: Not available.

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ACC 4287; TYPE P; YEAR 1982
UNKNOWN;
INDUSTRY BACKS AREA-WIDE SALE OF OCS BLOCKS.

BIBL OIL GAS J. 80(42):54-55.

KEYWORD: drilling, oil and gas

ABSTRACT: Not available.

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ACC 4288; TYPE P; YEAR 1982
UNKNOWN;
BLM PICKS GULF OF MEXICO AREAS FOR ENVIRONMENTAL STUDY.

BIBL THE OIL DAILY 7627:6.

KEYWORD: continental shelf, oil and gas

ABSTRACT: Not available.

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ACC 4295; TYPE P; YEAR 1979
UNKNOWN;
CORAL REEFS IN POTENTIAL CONFLICT WITH OIL AND GAS DEVELOPMENT (FLOWER GARDEN BANK, GULF OF MEXICO).

BIBL SCIENCE 204(4395):812.

KEYWORD: coral, reef, oil and gas, pollution, petroleum, continental shelf

ABSTRACT: Not available.

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ACC 620; TYPE ; YEAR 1960
VAN ANDEL, T.H.; POOLE, D.M.;
SOURCES OF RECENT SEDIMENTS IN THE NORTHERN GULF OF MEXICO.

BIBL J. SEDIMENT. PETROL. 30:91-122.

KEYWORD: geology, heavy mineral, sediment, geologic history

ABSTRACT: Not available.

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ACC 2253; TYPE P; YEAR 1975
VAN BREEDVELD, J.F.;
TRANSPLANTING OF SEAGRASSES WITH EMPHASIS ON THE IMPORTANCE OF SUBSTRATE.

BIBL FLA. DEPT. NAT. RESOURCES, MAR. RESEARCH LAB. FLA. MAR. RES. PUBL. NO. 17. 26 P.

KEYWORD: seagrass, substrate, sediment

ABSTRACT: Past seagrass transplant experiments emphasized the use of anchoring devices rather than the suitability of substrate. Thalassia testudinum was determined to need a reduced (anaerobic) environment, while Halodule wrightii required an oxidized (aerobic) substrate. Syringodium filiforme was found to be able to thrive in either a reduced or oxidized sediment. Transplanting should be done in a clump of 4 to 7 shoots with a few intact rhizome apiece; the original substrate should be transferred with the plants. Plantings should be done close together thus offering the roots and rhizomes a favorable environment from the beginning, and allowing them gradually to stabilize the surrounding area. Additionally, at least three rows should be planted in plot formation for increased protection and transplant success.

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ACC 766; TYPE ; YEAR 1978
VAN DEVENDER, T.M.;
THE SHRIMP FISHERY. PAGES 216-273 IN FISHERIES ASSESSMENT AND MONITORING, MISSISSIPPI COMPLETION REPORT, P.L. 88-309. PROJECT 2-215-R.

BIBL GULF COAST RESEARCH LABORATORY, OCEAN SPRINGS, MS.

KEYWORD: biology, seafood, commercial fishery, shellfish, shrimp, shrimp fishery

ABSTRACT: Not available.

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ACC 958; TYPE ; YEAR 1984
VAN SICLEN, D.C.;
EARLY OPENING OF INITIALLY CLOSED GULF OF MEXICO AND CENTRAL NORTH ATLANTIC OCEAN.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC. 36:265-275.

KEYWORD: geology, geologic history, plate tectonic

ABSTRACT: Regional structures beneath the northern Gulf of Mexico coastal plain clearly reveal the fit of the American continents following Late Paleozoic Appalachian-Ouachita orogeny. Most diagnostic is a wrench fault zone within the former Gondwana megacontinent, recognizable from the Florida panhandle to western Mississippi, along which future South America moved northwest against the southern edge of eastern North America to form the Ouachita foldbelt, while future Africa was already subducting that continent along the Appalachian belt. Extending westward from this in southwestern Alabama is the Wiggins arch, underlain by "granite" and phyllite of Late Pennsylvania into Early Permian age, apparently part of a volcanic arc. Along its north side and that to its counterparts farther west are shallow-marine strata of similar age. These appear to occupy a remnant ocean on North American oceanic crust, which was uncoupled by the close approach of

future South America and subducted very briefly beneath North America, while the sediments on its leading edge were peeled off and thrust onto the continent. The inferred volcanic arc and remnant ocean, and the Late Triassic Interior rift system that separates them from the Ouachita foldbelt, terminate abruptly in East Texas against a wrench fault that transferred this rifting south-southwest to the Rio Grande embayment area.

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ACC 4147; TYPE P; YEAR 1982
VAN VLEET, E.S.;
OIL CONTAMINATION OF THE GULF OF MEXICO.

BIBL PRESENTED AT GULF OF MEXICO -- TRENDS FOR THE 80'S. TULANE UNIVERSITY, NEW ORLEANS, LA.

KEYWORD: oil residue, tar, loop current, pollution, chemistry, petroleum, circulation, hydrocarbon

ABSTRACT: A two-year study of floating oil residues in the eastern Gulf of Mexico indicates that the Gulf is one of the world's most polluted bodies of water with respect to floating tar. Chemical analysis indicated that the major single source of tar in the eastern Gulf was through discharge of wall washings from crude oil tankers. Less than 5 to 10% of the tar could possibly have come from the massive IXTOC-1 oil well blowout in the Bay of Campeche in 1979. Although the quantity of tar in the Gulf of Mexico is substantial, few instances of direct biological impact have been reported. The floating tar appears to be fairly innocuous in the open Gulf but may be having a socioeconomic impact on southeast Florida beaches. Due to current circulation patterns in the eastern Gulf, most of the tar that washes ashore on beaches will accumulate between Key West and Fort Pierce, where it could have a serious impact on tourist industry of southeast Florida. The primary ecological danger of oil pollution results from major oil spills occurring in nearshore coastal waters and estuaries. The projected increase in offshore oil exploration and development over the next decade is likely to result in increased tanker operations, increased nearshore spillage, and increased ecological damage around the Gulf of Mexico.

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ACC 2254; TYPE P; YEAR 1983
VAN VLEET, E.S.; REINHARDT, S.B.;
INPUTS AND FATES OF PETROLEUM HYDROCARBONS IN A SUBTROPICAL MARINE ESTUARY.

BIBL ENVIRON. INT. 9(1):19-26.

KEYWORD: petroleum, hydrocarbon, sediment, benthic, temperature

ABSTRACT: Petroleum hydrocarbons were measured in municipal wastewater, urban stormwater drains, sediments and benthic organisms in and around Tampa Bay. Lower concentrations of hydrocarbons were found in effluents from tertiary and secondary treatment plants in this area than the concentrations reported for treatment plants in temperate regions. Warmer temperatures in this subtropical system may result in increased metabolic rates of microorganisms and more rapid degradation or metabolism of the petroleum hydrocarbons.

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ACC 4148; TYPE P; YEAR 1981
VAN VLEET, E.S; SACKETT, W.M.; WEBER, F.F. JR.; AND REINHARDT, S.B.;
SPATIAL AND TEMPORAL VARIATION OF PELAGIC TAR IN THE EASTERN GULF OF MEXICO

BIBL IN: M. BJORAY, ED. ADVANCES IN ORGANIC GEOCHEMISTRY. JOHN WILEY AND SONS, LONDON, ENGLAND. P. 362-368.

KEYWORD: tar petroleum, chemistry, oil residue, pollution, loop current, circulation, hydrocarbon

ABSTRACT: Pelagic tar concentration have been measured for samples collected monthly in the eastern Gulf of Mexico over a one year period. Each month, seven stations were occupied and duplicate neuston tows (to 0.5 m depth) and oblique tows (to 100 m depth) were collected at each station. Gravimetric analysis was carried out on the total extract, as well as on the aliphatic and aromatic fractions. The concentrations of pelagic tar ranged from 0 to 26.5 mg m -2 (expressed as the toluene extractable lipid) with an average of 1.60 mg m -2 in the neuston tows collected off the West Florida Shelf and 0.05 mg m -2 in neuston tows collected on the West Florida Shelf. The concentrations of pelagic tar closely correlated with proximity to the Gulf Loop current. The occurrence of tar was often associated with floating Sargassum. Essentially all of the tar was found in the top 50 cm of the water column with very little occurring in the subsurface waters. The highest pelagic tar concentrations were observed during the spring and summer of 1980. Both the absolute concentrations and spatial distributions of tar decreased during the following fall and winter.

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ACC 4149; TYPE P; YEAR 1984
VAN VLEET, E.S.; SACKETT, W.M.; REINHARDT, S.B.; MANGINI, M.E.;
DISTRIBUTION, SOURCES, AND FATES OF FLOATING OIL RESIDUES IN THE EASTERN GULF OF MEXICO.

BIBL MAR. POLL. BULL. 15(3):106-110

KEYWORD: tar, pollution, chemistry, petroleum, oil residue, loop current, circulation, hydrocarbon

ABSTRACT: Pelagic tar was monitored over a two-year period in the Eastern Gulf of Mexico. A total of 416 surface and subsurface samples were collected during monthly cruises. Concentrations of pelagic tar found in the Eastern Gulf of Mexico were substantially higher than values reported for other areas around the world. Tar is primarily associated with the Gulf Loop Current, whereas continental shelf areas are relatively uncontaminated. Grounding of significant amounts of tar occurs primarily along the southeast coast of Florida, between Key West and Fort Pierce. Approximately 10-50% of the tar in the eastern Gulf is transported in from the Caribbean Sea via the Yucatan Straits. The remainder originates within the Gulf. Approximately half of the pelagic tar samples collected during the study appeared to have originated from tanker operations.

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ACC 2231; TYPE P; YEAR 1959
VAUSE, J.E.;
UNDERWATER GEOLOGY AND ANALYSIS OF RECENT SEDIMENTS OFF THE NORTHWEST FLORIDA COAST.

BIBL J. SEDIMENT. PET. 29(4)555-563.

KEYWORD: sediment, grain size, wave

ABSTRACT: Diver-collected sediment samples were used in transect surveys of the sedimentary environment of the shallow continental shelf off the west coast of Florida. Sediment grain size was found to increase and sorting decrease in a seaward direction. Surface ripple marks were generally parallel to the shoreline and were apparently wave formed. Sea urchins of the genus Clypeaster were observed erasing ripple marks.

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ACC 2194; TYPE P; YEAR 1983
VIRNSTEIN, R.W.; CAPONE, M.A.; CAIRNS, K.D.; MIKKELSEN, P.S.;
A SHARP CHANGE IN MACROFAUNAL DENSITY AND DYNAMICS AT THE CONTINENTAL SHELF SLOPE BREAK.

BIBL PRESENTED AT BENTHIC ECOL. MEET., FLA. INSTIT. OF TECH., MELBOURNE.

KEYWORD: continental shelf, continental slope, diversity, benthic fauna, macrofauna, defaunation

ABSTRACT: An order of magnitude decrease in benthic macrofauna density was found near the topographic shelf slope break from samples along a transect off the southeast Florida coast. Recolonization rates in defaunated sediments also decreased markedly along the transect. On the inner shelf (33 m depth), density and diversity returned to original values within a few weeks, whereas on the slope (310 m), recolonization required more than a year.

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ACC 2557; TYPE P; YEAR 1980
VIRNSTEIN, R.W.; MIKKELSEN, P.S.; CAIRNS, K.D.; CAPONS, M.A.;
SEAGRASS BEDS VERSUS SAND BOTTOMS: THE TROPHIC IMPORTANCE OF THEIR ASSOCIATED BENTHIC INVERTEBRATES.

BIBL FLA. SCI. 646(3/4):363-381

KEYWORD: seagrass, invertebrate, epifauna, sediment, benthic fauna

ABSTRACT: Density of macrobenthic invertebrates was 3 times greater in seagrass bedsin Indian River Lagoon, Florida than in nearby unvegetated sediments. Seagrass beds had 13 times more abundant epifauna than sand areas, presumably due to epifauna dependence on seagrass for food, habitat, nursery area, and protection from predators. To determine the importance of associated macrobenthos to the local food web and the effect of small decapod predators, four 3 mm mesh cages were erected each within a larger 12 mm mesh cage, 2 in seagrass and 2 in sand. After 2 months, decapod density increased within the inner cages, while macrobenthos abundance decreased. Problems associated with predator exclusion or enclosure experiments are cited and the trophic pathways of seagrass meadows and sand bottom communities are discussed.

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ACC 424; TYPE ; YEAR 1978
VITTOR, B.A.;
REVIEW OF LITERATURE PERTAINING TO THE EFFECTS OF DREDGING WITHIN THE MISSISSIPPI SOUND AND ADJACENT AREAS STUDY AREA.

BIBL U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, MOBILE, AL. 62 PP.

KEYWORD: bacteria, benthic community, dissolved oxygen, dredging, nutrient, pesticide, trace metal, turbidity

ABSTRACT: Not available.

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ACC 647; TYPE ; YEAR 1981
VITTOR, B.A.;
BENTHIC COMMUNITY CHARACTERIZATION OF MISSISSIPPI SOUND. IN: J.R. KELLY, ED. SYMPOSIUM ON MISSISSIPPI SOUND.

BIBL MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM, OCEAN SPRINGS, MS. MASGP-81-007.

KEYWORD: benthic community, benthic fauna, biology, coastal resource

ABSTRACT: Not available.

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ACC 815; TYPE ; YEAR N/AT
VITTOR, B.A.;
DRILLING SITE MONITORING IN MOBILE BAY, ALABAMA.

BIBL N/A

KEYWORD: benthic fauna, carbon, dissolved oxygen, hydrocarbon, metal, light attenuation, mineralogy, salinity, sediment, meiofauna, macrofauna, water temperature, turbidity

ABSTRACT: Biomonitoring is currently being conducted in lower Mobile Bay to provide a framework of marine life existing in the area prior to the drilling of an oil and gas test well. The study involves 6 stations monitored quarterly beginning in July, 1978 for macrofauna, meiofauna, sediment mineralogy, sediment total organic carbon, sediment oil and grease and sediment trace metals. Hydrography performed includes temperature, salinity, dissolved oxygen and turbidity.

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ACC 2154; TYPE U; YEAR 1977
VITTOR, B.A.;
BENTHIC FAUNA OF MAFLA STUDY TRANSECTS V AND VI (1975-76).

BIBL UNPUBLISHED REPORT. U.S. DEPARTMENT OF INTERIOR. BLM, WASHINGTON, D.C. 28 P.

KEYWORD: benthic, polychaete, season, biomass, weight, diversity, geographic, temperature, salinity, DO, sediment, MAFLA

ABSTRACT: This report presents the results of the polychaete study for transect V (West Florida Shelf) and transect VI (Mississippi-Alabama Shelf) of the Bureau of Land Management sponsored program in the Mississippi, Alabama, Florida (MAFLA) outer continental shelf. The author summarizes his findings as follows: 1) The number of species and individuals differed, with respect to both season and location. September values were generally lowest for both parameters, while stations with fine sediments supported fewest species and individuals. 2) Polychaete wet weight biomass estimates also varied with season and location (sediment type). Seasonal and sediment effects were the same as for numbers of species and individuals. 3) Species diversity and evenness were highest during June. The decrease in H' and H____ in September coincided with decreases in species and individual abundance. 4) Dominant species are distributed according to sediment type and geographical location. Family groupings show the same patterns. 5) Species diversity decreases as mean sediment particle size decreases, regardless of season or geographical location.

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ACC 2155; TYPE P; YEAR 1978
VITTOR, B.A.;
ABUNDANCE, DIVERSITY AND DISTRIBUTION OF BENTHIC POLYCHAETOUS ANNELIDS IN THE EASTERN GULF OF MEXICO.

BIBL MAFLA REPT. SUBMITTED TO DAMES AND MOORE, INC. BLM CONTRACT AA550-CT7-34. P. 699-747.

KEYWORD: polychaete, continental shelf, biomass, diversity, sediment, season, latitude, salinity, assemblage, substrate, zoogeography

ABSTRACT: Approximately 195,400 individual polychaetes from the Eastern Gulf of Mexico continental shelf were identified and counted, representing 60 families and 1,056 taxa. Wet weight biomass, individual abundance, and diversity varied with respect to the sediment type, season, latitude, and salinity. Average biomass values ranged from 39.04 to 306.53 mg/0.06 square meter at deep stations, and from 392.02 to 2226.06 mg/0.06 square meter at depths less than 100 m. Southern stations and generally higher standing crops. Polychaete abundance showed similar patterns as expected. Species richness and diversity, however, were higher north of Cape San Blas, Florida, and in shallow water habitats. Coarse sediments supported more polychaete individuals and species than either medium or

fine sediments, although differences were small between coarse and medium benthos. Polychaete assemblages appeared to be arranged with respect to the same environmental parameters. Disjunct distributions of some groups were related to salinity and substrate preferences. Polychaete taxonomy and zoogeography were also discussed.

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ACC 4250; TYPE P; YEAR 1983
VLEET, E.S. VAN; SACKETT, W.M.; WEBER, F.F., JR.; REINHRADT, S.B.;
INPUT OF PELAGIC TAR INTO THE NORTHWEST ATLANTIC FROM THE GULF LOOP CURRENT: CHEMICAL CHARACTERIZATION AND ITS RELATIONSHIP TO WEATHERED IXTOC-I OIL. CONFERENCE ON POLLUTION IN THE NORTH ATLANTIC OCEAN HALIFAX, N.S. (CANADA) 19-23 OCT. 1981.

BIBL CONF. ON POLL. IN THE NORTH ATLANTIC OCEAN. PP. 12-22.

KEYWORD: tar, loop current, pollution, neuston, circulation

ABSTRACT: Pelagic tar concentrations have been measured for samples collected monthly in the eastern Gulf of Mexico over a one year period. Analyses of the pelagic tar included gravimetric isotopic (delta super(13)C) and molecular (gas chromatographic) characterization of the total, aliphatic and aromatic fractions. The concentrations of pelagic tar ranged from 0 to 26.5 mg multiplied by m-2 of toluene extractable material, with an average of 1.60 mg multiplied by m-2 in the offshore neuston tows and 0.05 mg multiplied by m-2 in neuston tows taken on the west Florida continental shelf. Based upon an average annual Loop Current discharge of 28 x 10 s6 m3 multiplied by 3.2 through the Florida Straits, it...

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ACC 318; TYPE ; YEAR 1973
VOSS, G.; OPRESCO, L.; THOMAS, R.;
THE POTENTIALLY COMMERCIAL SPECIES OF OCTOPUS AND SQUID OF FLORIDA, THE GULF OF MEXICO AND CARIBBEAN SEA.

BIBL SEA GRANT FIELD GUIDE SERIES, MIAMI UNIVERSITY, MIAMI, FL. NOAA-74010901. 40 PP.

KEYWORD: biology, coastal water, fishery, life history, mollusc

ABSTRACT: Not available.

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ACC 2156; TYPE P; YEAR 1954
VOSS, G.L.;
CEPHALOPODA OF THE GULF OF MEXICO.

IN: GULF OF MEXICO, ITS ORIGIN, WATERS, AND MARINE LIFE.

BIBL FISH. BULL. U.S. 55(89):475-478.

KEYWORD: life history, reproduction, mollusc

ABSTRACT: A short summary of distribution and taxonomic work on cephalopods of the Gulf of Mexico is given. The life histories, feeding behavior, abundances and reproduction of cephalopods are discussed. A list of species sighted to date in the Gulf of Mexico is given.

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ACC 2157; TYPE P; YEAR 1956
VOSS, G.L.;
A REVIEW OF THE CEPHALOPODS OF THE GULF OF MEXICO.

BIBL BULL. MAR. SCI. GULF & CARIBB. 6(2):85-178.

KEYWORD: distribution, mollusc, taxonomy, life history, feeding habit, abundance, reproduction

ABSTRACT: An extensive effort was made to collect and identify specimens of Cephalopods collected during trawls from 1950 to 1956 in the Gulf of Mexico. Identification, classification, and distribution of cephalopods is discussed. Illustrations and a synopsis of species are given.

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ACC 2490; TYPE P; YEAR 1953
VOSS, G.;
OBSERVATIONS OF OCTOPUS HUMMELINCKI.

BIBL NAUTILUS 66(3):73.

KEYWORD: Monroe, mollusc

ABSTRACT: A single specimen of Octopus hummelincki discovered beneath a slab of coral at Long Reef in the Florida Keys was observed on 26 July 1952. The sculpture, coloration, movements, and habitat of the octopus are described.

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ACC 2534; TYPE P; YEAR 1955
VOSS, G.L.; VOSS, N.A.;
AN ECOLOGICAL SURVEY OF SOLDIER KEY, BISCAYNE BAY, FLORIDA.

BIBL BULL. MAR. SCI. GULF & CARIBB. 5(3):203-229.

KEYWORD: Dade, invertebrate, algae, temperature, salinity, DO, nutrient

ABSTRACT: The intertidal and shallow water invertebrate and algae life of Soldier Key, a small island off the southeast coast of Florida, was described and certain zones of the shallow water were classified according to the most numerous inhabitants. These included, proceeding from the shore seaward, the Echinometra zone, the Porites-coralline zone, the Thalassia zone and the alcyonaria zone. These zones were believed to be characteristic of the other islands of the Florida Keys. The plants and invertebrates common to these zones were listed and some of their relationships discussed. All of the known animals and plants of the intertidal and shallow water of Soldier Key were listed along with their respective zonations.

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ACC 1039; TYPE ; YEAR 1979
VUKOVICH, F.M.; CRISSMAN, B.W.; BUSHNELL, M.; KING, W.J.;
SOMB ASPECTS OF THE OCEANOGRAPHY OF THE GULF OF MEXICO USING SATELLITE AND IN SITU DATA.

BIBL J. GEOPHY. RES. 84:7749-7768.

KEYWORD: loop current, data, gyre, infrared imagery, meteorology, physical oceanography, radiometer, remote sensing, satellite, circulation

ABSTRACT: Satellite infrared data and in situ data were combined to study synoptic-scale and mesoscale fronts in the Gulf of Mexico in the period 1973-1977. Deep northward penetrations of the Loop Current were noted in the winter, and a major warm gyre developed in the winter, 1974. Other major warm gyres were seen to develop in the early spring (1974 and 1977). In all cases, a very large meander developed off the southern part of the west Florida shelf prior to the development of the major warm gyre. Smaller meanders were seen to move along the Loop Current boundary at an average speed of 28 km/day and with an average wavelength of 210 km.

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ACC 4150; TYPE P; YEAR 1985
VUKOVICH, F.M.; MAUL, G.A.;
CYCLONIC EDDIES IN THE EASTERN GULF OF MEXICO.

BIBL OCEANOGR. 15(1):105-117

KEYWORD: eddy formation, circulation, physical oceanography, remote sensing, loop current, hydrography, currents

ABSTRACT: Cold-domed cyclonic eddies juxtaposed to the cyclonic shear side of the Gulf Loop current are observed in simultaneously obtained hydrographic, current meter mooring, and satellite infrared data. The cyclones are initially observed in the satellite data as cold perturbations on the northern extreme of the current and gr either into a cold tongue or a quasi-stable meander off the Dry Tortugas, Florida. Areal shipboard surveys show closed isopleths of temperature and salinity, and surface geostrophic current speeds relative to 1000 db are in excess of 100 cm s minus 1. The diameter of the cold domes varied from 80 to 120 km. Separation of large anticyclonic rings is always observed to be preceded by cyclonic eddies in the transition zone between Campeche Bank and the West Florida Shelf, but only on the eastern side. Not every cyclonic eddy off Dry Tortugas is associated with the separation of an anticyclonic ring; some are eroded away by the Florida Current, but they have never been observed in 10 years of satellite data to advect eastward through the Straits of Florida.

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ACC 4242; TYPE P; YEAR 1986
VUKOVICH, F.M.;
ASPECTS OF THE BEHAVIOR OF COLD PERTURBATIONS IN THE EASTERN GULF OF MEXICO: A CASE STUDY.

BIBL J. PHYS. OCEANOGR. 16(1):175-188.

KEYWORD: loop current, currents, physical oceanography

ABSTRACT: Between 2 March and 13 May 1983, while using in situ and satellite data, three cold perturbations were observed off the West Florida Shelf. These perturbations moved southward along the boundary of the Loop Current at speeds of about 4 to 10 km day super (-1). Geostrophic current and current meter data indicated a cyclonic circulation associated with the cold perturbations. The geostrophic current indicated northward flow on the west side of the warm filaments that formed on the shoreward side of the cold perturbation, and weak southward flow on the east side. However, the current meter data only gave indications of northward flow in the filaments. The current meter array may not have been able to discriminate the entire flow pattern in the filaments.

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ACC 2491; TYPE P; YEAR 1969
WAINWRIGHT, S.A.: DILLON, J.R.;
ON THE ORIENTATION OF SEAFANS (GENUS GORGONIA).

BIBL BIOL. BULL. 136:130-139.

KEYWORD: Monroe, coral, gorgonian, wave, currents

ABSTRACT: Measurements were made of the orientation (to points of the compass) of the plane of 189 seafans from 5 patches of coral reefs in the upper Florida Keys. Small fans were observed to be randomly oriented, whereas large fans showed a high degree of preferred orientation within each patch. Microscopic examination of the axial skeleton of some large fans revealed progressive changes in orientation that had

taken place during growth. A passive mechanism of orientation was suggested. Due to the high velocity and short period of surf and surge and the observed motions of fans on the reef, surf and surge are judged to be the most important components of water movements controlling fan orientation.

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ACC 4313; TYPE P; YEAR 1982
WALKER, N.D.; ROBERTS, H.H.; ROUSE, L.J., JR.; HUH, O.K.;
THERMAL HISTORY OF REEF-ASSOCIATED ENVIRONMENTS DURING A RECORD COLD-AIR OUTBREAK EVENT.

BIBL CORAL REEFS 1(2):83-87.

KEYWORD: coral, mortality, reef, temperature, meteorological, wind, biological, stress

ABSTRACT: Several solar continental air masses intruding into the south Florida/northern Bahama Bank region during Jan. 1981 caused record low air temperatures and rapid chilling of extensive shallow-water carbonate systems. Numerous "coral kills" along the Florida reef tract and massive fish mortalities in Florida Bay were attributable to unusually cold waters generated at this time. Thermal evolution of Florida Bay/Florida reef tract and northern Bahama Bank waters from 8 to 21 January was assessed from thermal infrared data acquired by the NOAA-6 environmental satellite, in situ water temperatures, local meteorological data, and a computerized heat flux model. Offshore movement of bay water is driven primarily by strong northerly winds, density gradients, and tidal pumping. Absence of reef development opposite major tidal passes along the Florida reef tract and aperiodic coral kills along bank margins can be attributed to this process, which has probably had a limiting influence on Holocene reef development in these areas.

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ACC 4321; TYPE P; YEAR 1981
WALKER, N.D.;
JANUARY WATER TEMPERATURES KILL FLORIDA FAUNA.

BIBL COASTAL OCEANOGR. AND CLIMATOL. NEWS. 3(3):30.

KEYWORD: temperature, wind speed, fish, mortality, defaunation

ABSTRACT: Seven cold fronts reached southern Florida during Jan. 1981, depressing air and water temperatures below normal for most of the month. Intense frontal systems moved in to the area Jan. 10 and 16, causing air temperature minima over Florida Bay of 2.2 and 5.3 C, respectively, and wind speeds in excess of 15 m/sec at Key West. In response to their forcing mechanisms, Florida Bay water reached low temperatures of 9.0 C on Jan. 13 and 10.7 C on Jan. 18 and 19. The water temperatures rose briefly to 20 C during the interlude between frontal systems. A NOAA-6 satellite IR image shows the effects of the Jan. 16 frontal passage on shallow bank and bay environments.

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ACC 659; TYPE ; YEAR 1979
WALLACE, R.H.; KRAEMER, T.F.; TAYLOR, R.E.,.WESSELMA, J.B.;
ASSESSMENT OF GEOPRESSURED-GEOTHERMAL RESOURCES IN THE NORTHERN GULF OF MEXICO. PAGES 132-163 IN L.J.P. MUFFLER, ED. ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1978.

BIBL U.S. GEOLOGICAL SURVEY, CIRCULAR 790. 163 PP.

KEYWORD: coastal water, geology, geothermal, resource, socioeconomic

ABSTRACT: This report estimates the geopressured-geothermal energy contained in pore waters of sedimentary rocks to a depth of 22,500 ft (6.86 km) in the northern Gulf of Mexico basin, both onshore and offshore. The total thermal energy in waters of both sandstone and shale is estimated to be 107,000 x 10(18) J. of which 11,000 x 10(18) J is in sandstone and thus represents the amount from which initial production will be drawn. Assuming saturation of the water with methane, the total methane dissolved in water within sandstone and shale is 59,000 x 10(12) standard cubic feet. Of this, 5700 x 10(12) standard cubic feet, equivalent to 6000 x 10(18) J of thermal energy, is contained in water within sandstone. Application of the recoverability analysis presented by Papadopulos and others (1975) in USGS Circular 726 suggests that recoverable thermal energy ranges from 270 x 10(18) J under plan 3 (controlled development with limited pressure reduction and subsidence) to 2800 x 10(18) J under plan 2 (depletion of reservoir pressure). The energy equivalent of recoverable methane ranges from 158 x 10(18) J under plan 3 to 1640 x 10(18) J under plan 2. The electricity producible from this thermal energy at a conversion efficiency of 8 percent ranges from 23,000 MWe for 30 yr under plan 3 to 240,000 MWe for 30 yr under plan 2. As in Circular 726, the dissolved methane is not considered to be used locally, and, accordingly, no electrical energy is calculated.

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ACC 2492; TYPE P; YEAR 1978
WALTON, A.S., JR.;
ORIENTATION TO WAVE SURGE BY SPINY LOBSTERS.

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY. TALLAHASSEE, FL.

KEYWORD: Monroe, spiny lobster, wave, behavior

ABSTRACT: Panulirus argus captured in the Florida Keys were tested for their ability to orientate according to wave surge level and direction. In the presence of surge, the paths were straighter and clustered about a single direction. As the surge level increased, however, straightness and clustering differences from control levels increased. Velocity, more than displacement was important in orientation. Walking

speed remained constant under differing surge conditions. The possibility of menorheotatis is discussed.

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ACC 2039; TYPE P; YEAR 1975
WANLESS, H.R.;
SEDIMENTARY DYNAMICS AND SIGNIFICANCE OF SEAGRASS BEDS.

BIBL FLA. SCI. 38(SUPPL. 1):20.

KEYWORD: seagrass, sediment, community, turbidity, sediment transport

ABSTRACT: The influence of grassbeds on sediment movement and resultant faunal communities is discussed. Roots and rhizomes impede sediment movement and these stabilized areas provide good settings for molluscan community development. Grassbed losses increase sediment instability, higher turbidity, and reduced benthic communities. Seagrass molluscan communities are different from others and perhaps the progression of the beds can be compared in ancient sedimentary environments, thereby leading to reconstruction of paleoenvironments.

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ACC 2158; TYPE P; YEAR 1977
WANLESS, H.R.; DAVIS, J.;
CARBONATE SEDIMENT CONSTITUENTS OF MAFLA SHELF. TECHNICAL REPORT.

BIBL SUBMITTED TO BUREAU OF LAND MANAGEMENT, WASHINGTON, DC. (MAFLA-OCS PROGRAM). 45 P.

KEYWORD: sediment, continental shelf, carbonate, MAFLA

ABSTRACT: Surface sediments from the continental shelf of the eastern Gulf of Mexico were analyzed for carbonate and biogeneous constituent composition. Results generally agree with those of previous studies. A number of quantitive differences are discussed.

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ACC 2159; TYPE P; YEAR 1977
WANLESS, H.R.; PARK, J.; BOHLKE, B.
MOLLUSCAN LITHOTOPE ASSEMBLAGES OF MAFLA SHELF. TECHNICAL REPORT.

BIBL SUBMITTED TO BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. (MAFLA-OCS PROGRAM). 63 P.

KEYWORD: mollusc, benthic, community, substrate, assemblage

ABSTRACT: The molluscan lithotope (shell depth assemblage) was examined for the MAFLA lease area to acquire information about the benthic community character and dynamics, and the dominant substrate processes. Pending analysis will address some of the following: compare species distribution with other textural parameters; define assemblages and assemblage sequences; compare lithotope and biotope; correlate species-weathering assemblages with substrate attributes; and map critical species-weathering assemblages.

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ACC 2536; TYPE P; YEAR 1981
WANLESS, H.R.;
FINING UPWARDS SEDIMENTARY SEQUENCES GENERATED IN SEAGRASS BEDS.

BIBL J. SED. PETROL. 51(2):445-454.

KEYWORD: Dade, carbonate, seagrass, transport, sediment

ABSTRACT: Fining-upwards sedimentary sequences in shallow water carbonate environments of southeast Florida are generated by seagrass beds of Thalassia testudinum. A variable size lenticular fining-upwards sequence is produced from seaward-migrating storm blowouts in seagrass beds. The four vertical zones of a complete fining-upwards sequence are summarized. As seagrasses restabilize the upper portion of the blowout, bedload transport is decreased and settled storm suspensions are preserved. The grass stabilized zone is characterized by the molluscs, Chione cancellata and Codakia orbicularis. The characteristic mollusc assemblage and the preserved textural sediment sequence are unique among fining-upwards sequences.

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ACC 878; TYPE ; YEAR 1974
WARD, E.G.;
OCEAN DATA GATHERING PROGRAM, AN OVERVIEW.

BIBL SHELL DEVELOPMENT COMPANY.

KEYWORD: hurricane, wave amplitude, barometric pressure, wind direction, wind speed

ABSTRACT: The ocean data gathering program resulted in the collection of oceanographic and meteorological data at six offshore sites in the Gulf of Mexico from 1968-1971. The primary goal of the program was to obtain data on extreme conditions generated by severe hurricanes in the Gulf of Mexico. Parameters continuously recorded are wave amplitude, wind speed and direction, and barometric pressure.

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ACC 2493; TYPE P; YEAR 1978
WARNER, R.E.; COMBS, C.L.; GREGORY, D.R., JR.;

BIOLOGICAL STUDIES OF THE SPINY LOBSTER PANULIRUS ARGUS (DECAPODA: PALINURIDAE) IN SOUTH FLORIDA.

BIBL PROC. GULF CARIBB. FISH. INSTIT. 29:166-183.

KEYWORD: Monroe, spiny lobster, seasonal, biology, growth, population, commercial fishery

ABSTRACT: Seasonal movements, reproductive biology, growth rates, population structure, distribution and relative abundance of local adult and subadult lobster populations, especially as these parameters relate to the commercial industry, were evaluated. The south Florida commercial fishery was determined to be stressed heavily in both the Gulf and Atlantic. A reevaluation of the current management program for the lobster resource in south Florida was recommended so as to ensure the perpetuation of the fishery.

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ACC 2255; TYPE P; YEAR 1983
WATTS, S.A.;
SEASONAL CHANGES IN ACTIVITY OF LUIDIA CLATHRATA (ECHINODERMATA: ASTEROIDEA).

BIBL FLA. SCI. 46(SUPPL. 1):22.

KEYWORD: seasonality, echinoderm, temperature, salinity, nutrient

ABSTRACT: Seasonal variations in activity of Luidia clathrata in Tampa Bay, Florida were measured by changes in righting time and prey handling time. Activity was found to be directly related to both temperature and salinity. Activity was maximum in the summer and minimum in the winter. Laboratory activity experiments indicated that L. clathrata does not acclimate to temperature. Low activity in late summer and winter may cause a decline in feeding and subsequent nutrient storage, thereby decreasing the reproduction potential of the seastars the following spring.

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ACC 2374; TYPE P; YEAR 1977
WEINSTEIN, M.P.; COURTNEY, C.M.; KINCH, J.C.;
THE MARCO ISLAND ESTUARY: A SUMMARY OF PHYSICOCHEMICAL AND BIOLOGICAL PARAMETERS.

BIBL FLA. SCIENTIST 40(2):97-124.

KEYWORD: Collier, chemical, biological, invertebrate, fish, substrate, temperature, salinity, infaunal community, DO, turbidity, nutrient, chlorophyll, pink shrimp

ABSTRACT: Physicochemical and biological parameters of the Marco Island estuary were summarized in this report. Maximum diversity for epibenthic invertebrates and fishes was associated with predominantly coarser substratas. Several species of invertebrates and fishes exhibited distinct seasonality, becoming scarce during the cooler months. Considerable differences in the infaunal communities were found to occur between artificial waterways and natural mangrove tidal creeks and open bays. Less pronounced differences were apparent in the canal fish community which most closely resembles that of the unvegetated open bay area.

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ACC 2537; TYPE P; YEAR 1948
WEISS, C.M.;
THE SEASONAL OCCURRENCE OF SEDENTARY MARINE ORGANISMS IN BISCAYNE BAY, FLORIDA.

BIBL ECOLOGY 29(2):153-172.

KEYWORD: Dade, seasonal, abundance, fouling, temperature, salinity

ABSTRACT: The sedimentary organisms recorded from Biscayne Bay exhibited pronounced seasonal fluctuations in abundance. Several of the organisms demonstrated year to year variation in numbers. The fouling complex in this area was shown to be dominated by barnacles in the early succession and by the colonial spreading forms, tunicates and encrusting bryozoans in the later stages. The ecological factors which contributed to the character and abundance of fouling at three sites were described.

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ACC 1032; TYPE ; YEAR 1971
WETZEL, R.L.;
ANALYSIS OF COHABITATION BY GAMBUSIA AFFINIS AND POECILIA LATIPINNA IN A SALTMARSH CANAL IN FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF WESTERN FLORIDA, PENSACOLA, FL. 80 PP.

KEYWORD: air temperature, pelagic fish, water level, marsh, coastal, water temperature

ABSTRACT: The cohabitation of Gambusia affinis and Poecilia latipinna was described from populations at 3 stations in a salt marsh canal near Pensacola, Florida. 2395 fish of 6 species were examined between June, 1970 and July, 1971, but most data generated were on the 2 principal species.

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ACC 836; TYPE ; YEAR 1977
WHITE, C.J.; BOUDREAUX, C.;
DEVELOPMENT ON AN AREAL MANAGEMENT CONCEPT FOR GULF PENAEID SHRIMP.

BIBL LOUISIANA WILDLIFE AND FISHERIES COMMISSION, TECH. BULL. 22.

KEYWORD: benthic fauna, currents, light extinction, salinity, sea state, water temperature, wind direction, wind speed, zooplankton

ABSTRACT: This report presents information on occurrence, growth and movements of penaeid shrimp in Louisiana estuarine waters. Sampling was accomplished with a plankton net and otter trawl. Water parameters were also monitored at each station. Sample collection began in July, 1972 and lasted three years.

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ACC 2232; TYPE P; YEAR 1980
WHITE, D.C; ET AL.;
EFFECTS OF BIOTURBATION AND PREDATION BY MELLITA QUINQUIESPERFORATA ON SEDIMENTARY MICROBIAL COMMUNITY STRUCTURE, IN: ESTUARINE PERSPECTIVES.

BIBL ACADEMIC PRESS, INC., NEW YORK, NY. P. 163-171.

KEYWORD: sediment, nutrient, biomass, foraminifera, temperature, salinity, DO, light, echioderm

ABSTRACT: Sediment processing by sand dollars (Mellita quinquiesperforata) modified the benthic microbial community without significantly altering gross nutrient balances. Cellular and membrane biomass remained unchanged as did prokaryotic biomass and total metabolic activity. Processed sands showed enrichment and prokaryotic fatty acids and reduction of microeukaryotic fatty acids. Lipid neutral carbohydrate exhibited the same trends. A significant decrease in foraminifera abundance suggested that sand dollars selectively prey on some microeukaryotes, but have little effect on the biomass or metabolic activity of benthic prokaryotes.

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ACC 850; TYPE ; YEAR 1975
WHITE, C.J.;
EFFECTS OF 1973 RIVER FLOOD WATERS ON BROWN SHRIMP IN LOUISIANA ESTUARIES.

BIBL LOUISIANA WILDLIFE AND FISHERIES COMMISSION, TECH. BULL. 16. 24 PP.

KEYWORD: benthic fauna, salinity, water temperature, zooplankton, river discharge

ABSTRACT: Brown shrimp data depicting larval occurrence, juvenile density and growth are presented for 1970 to 1973 during the period of January through June. Comparisons are made of brown shrimp populations occurring during periods of normal hydrological conditions and during flood conditions. The effects of a major flood upon survival, growth and production are discussed.

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ACC 895; TYPE ; YEAR 1974
WHITING, N.H.; MOSHIRI, G.A.;
CERTAIN ORGANISM - SUBSTRATE RELATIONSHIPS AFFECTING THE DISTRIBUTION OF UCA MINAX.

BIBL HYDROBIOLOGIA 44:481-493.

KEYWORD: decapoda, air temperature, benthic fauna, sediment, carbon, dissolved oxygen, sediment texture, temperature

ABSTRACT: Substrate, temperature and oxygen relationships were studied as they effect populations of Uca minax, a decapod crustacean. These data were collected between December, 1968 and December, 1972.

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ACC 2494; TYPE P; YEAR 1967
WICKHAM, D.A.;
OBSERVATIONS ON THE ACTIVITY PATTERNS IN JUVENILES OF THE PINK SHRIMP, PENAEUS DUORARUM.

BIBL BULL. MAR. SCI. 17(4):769-786.

KEYWORD: Monroe, pink shrimp, light, current, behavior, temperature, salinity, DO, tide

ABSTRACT: Laboratory observations of diel patterns in locomotor and burrowing activity of juvenile Penaeus duorarum collected from Buttonwood Canal, Flamingo, Florida were made under constant light intensity, water current, and water level. Activity patterns appeared to be regulated by tidal and lunar periodicities. Experimental variation of light and water levels also affected behavior patterns of juvenile pink shrimp. Activity patterns of P. duorarum in the field were concluded to be determined by an interaction of ambient environmental stimuli and rhythmic patterns of abiotic factors.

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ACC 2538; TYPE P; YEAR 1966
WICKHAM, D.H.;
OBSERVATIONS OF THE PATTERNS OF PERSISTENT ACTIVITY IN JUVENILE PINK SHRIMP, PENAEUS DUORARUM BURKENROAD.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL. 52 P.

KEYWORD: Dade, pink shrimp, behavior, pressure, light, current

ABSTRACT: The behavior of pink shrimp, Penaeus duorarum was examined to determine factors controlling activity levels, and periods. Most activity occurred during 2 nocturnal periods which seemed to be regulated by tidal rhythms. Rhythms were maintained under varying conditions but it could not be determined whether hydrostatic pressure, light intensity, or current is the entraining factor. Adaptive significance and the importance of considering several environmental factors in the control of a behavior pattern are discussed.

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ACC 2256; TYPE P; YEAR 1980
WICKS, S.R.;
EVIDENCE OF NITROGEN FIXING BACTERIA ON SEAGRASSES.

BIBL CARIBB. J. SCI. 15(3-4):149-152.

KEYWORD: seagrass, nutrient

ABSTRACT: Six species of free living, nitrogen-fixing bacteria were found to be abundant on the leaves and rhizomes of 3 seagrass species in Tampa Bay, Florida. Azobacter agilis was found on turtle grass (Thalassia testudinum), manatee grass (Syringodium filiforme), and shoal grass (Diplanthera (Halodule) wrightii). Rhodospirillum rubrum was isolated from shoal and turtle grass. Thiobacillus traufweinii and 3 anaerobic species were isolated from the rhizomes from all 3 seagrass species. The presence of nitrogen-fixing bacteria on seagrasses indicate that they may contribute to the fixed nitrogen budget of the seagrass community.

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ACC 632; TYPE ; YEAR 1983
WIESE, J.D.; SLITOR, D.L.; MCCORD, C.A.;
GULF OF MEXICO SUMMARY REPORT: OUTER CONTINENTAL SHELF OIL AND GAS ACTIVITIES IN THE GULF OF MEXICO AND THEIR ONSHORE IMPACTS.

BIBL MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGIONAL OFFICE, METAIRIE, LA. 106 PP.

KEYWORD: exploration, industry, oil, continental shelf, resource, socioeconomic

ABSTRACT: Principal sediment sources in the northern Gulf of Mexico are the Mississippi and Rio Grande basins, which supply subarkosic sands with highly unstable heavy mineral suites derived from mixed sedimentary, volcanic, plutonic, and metamorphic rocks. Components belonging to the last three groups predominate in the heavy mineral assemblages. Much of the detritus has been transported over very long distances. Tectonically, the source areas include both cratons and orogens. The distibutive provinces are homogeneous, and sands, silts, and clays spread over the entire width of the shelf. The drainage basins of the rivers of western Louisiana, Texas, an the area east of the Mississippi represent less abundant sediment sources. With the exception of the metamorphic and sedimentary suite of the Colorado River, sediments are orthoquartzitic with stable heavy mineral suites, and are derived from the Cretaceous and Tertiary margins of the Gulf Coast basin. Sands from these sources are distributed mainly in the nearshore zone, whereas the clays are carried by Gulf residual currents and deposited on the Middle and outer shelf together with fine-grained Mississippi and Rio Grande material. The distribution patterns of the two major textural groups, sand and silt-clay, are virtually independent, and in many instances the sand, silt, and clay modes of the same locality have different sources. The sequence of nearshore environments produced by the Holocene transgression has resulted in the deposition of a complex pattern of sediments from a variety of sources.

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ACC 743; TYPE ; YEAR 1960
WIESER, W.;
BENTHIC STUDIES IN BUZZARDS BAY, II, THE MEIOFAUNA.

BIBL LIMNOL. OCEANOG. 56:121-137.

KEYWORD: biology, coastal water, benthic community, ecology, meiofauna, community structure, taxonomy

ABSTRACT: During the summer of 1957 a study of the small metazoans (meiofauna), based on a series of Phleger core samples, was undertaken at three stations in Buzzards Bay, Massachusetts. The number of animals ranged from 1.69 X 10(5) to 1.86 X 10(6)/m2, the dry weights varied from approximately 100 to 600 mg/m2. The nematodes and kinorhynchs, which comprised between 89 and 99% of the total meiofauna, were studied in detail. The sandy localities (stations P and J) were characterized by a number of nematodes restricted to this habitat, particularly by three representatives of the genus Odontophora and by all representatives of the genus Leptonemella. The locality rich in fine deposits (station R) was characterized by the relative abundance of several nematodes, particularly of Tershelligia longicaudata, and the three kinorhynch species. It was possible to recognize an Odotophora-Leptonemella community in the sandy habitats, and a Tershellingia longicaudata-Trachydemus mainensis (kinorhynch) community in the silty habitat, the former being equivalent to the Ampelisca community, the latter to the Nucula proxima-Nephthys incisa community described for the macrofauna in the same area. However, these "communities" can also be considered as two ecological groups of species, the former dependent on the presence of sand, the latter on that of fine deposits, which actually live side by side, forming an intricate meshwork of faunal

combinations. Each combination is determined by the relative amounts of sand and fine deposits present.

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ACC 269; TYPE ; YEAR 1972
WILHELM, O.; EWING, M.;
GEOLOGY AND HISTORY OF THE GULF OF MEXICO.

BIBL GEOL. SOC. AM., BULL. 83:575-600.

KEYWORD: geologic history, geology, seismic, stratigraphy

ABSTRACT: The principal aim of this study has been directed toward a comprehensive interpertation of the historical development of the Gulf of Mexico. The initial stage was analysis and correlation of seismic profiler records obtained over a considerable period, followed by an endeavor to correlate the results with the surface ecology of the land areas surrounding the Gulf. Indication of simatic oceanic crust beneath the abyssal Gulf has led to the assumption that it had been a permanent ocean basin. A concept developed in this study proposes that the simatic crust was formed in late Paleozoic time. Subsequent environmental conditions remained epicontinental, including the environment of Jurassic salt deposition. Proceeding from this viewpoint, the origin of the Gulf of Mexico is proposed to be related to the extensive regional subsidence of more than 10,000 ft during Cretaceous time, and its isolation came about by the continuous contemporaneous carbonate growth of the Florida and Yucatan platforms. Minimum rates of sediment deposition, compared to the rate of platform growth, led to consistent deepening which accordingly, must be underlain by a thin Cretaceous section. Hypothetically, the Straits of Florida and the Yucatan Channel originated from erosion at the front of the Laramide tectogene when carbonate growth was halted, following the inundation by seaways. The Gulf of Mexico had been reduced to its present size by the invasion from the north and southwest of the huge Cenozoic mass of deposits, referred to as the Gulf Coast geosyncline. The last major volume of clastic sediments was deposited on the Mississippi cone as early Ho...

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ACC 4151; TYPE P; YEAR 1974
WILKENS, E.P.H.;
KINDS AND DIVERSITY OF FISH LARVAE COLLECTED IN BONGO NETS OFF WESTERN FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL. 64 P.

KEYWORD: biology, fish, ichthyoplankton, life history, recruitment, zooplankton

ABSTRACT: Ichthyoplankton sampling efficiency was evaluated using four bongo net samplers toward offshore southwest Florida. The effects of towing speed, opening size, mesh size, and time of day on estimates of species diversity and composition of larval fishes in representative samples were determined. Few taxa were added by increasing towing speed, possibly due to specimen damage which precluded identification beyond family level. Numbers of individuals did not increase with increasing towing speed. More species were collected during night tows at Station I, a deeper water station, than at Station II. Replicate tows of the 0.505 mm mesh net yielded significantly more species in common than did 0.333 mm mesh net. Whether 20 cm opening nets caught numbers of taxa similar to 60 cm nets could not be determined.

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ACC 4152; TYPE P; YEAR 1977
WILLIAMS, J.; GREY, W.F.; MURPHY, E.B.; CRANE, J.J.;
DRIFT BOTTLE ANALYSES OF EASTERN GULF OF MEXICO SURFACE CIRCULATION.

BIBL MEMOIRS OF THE HOURGLASS CRUISES. VOL. IV, PART III. MARINE RESEARCH LABORATORY, FLORIDA DEPARTMENT OF NATURAL RESOURCES, ST. PETERSBURG, FL. 134 P.

KEYWORD: circulation, currents, physical oceanography, drift bottle, hourglass

ABSTRACT: A total of 4,460 drift bottles was released in continental shelf waters between Tampa Bay and Ft. Myers, Florida, during Project Hourglass, a 28 month (1965 to 1967) systematic sampling program. The number of recoveries was 1,415 or 31.73% of those released. Coastlines where bottles were recovered were divided into five geographic areas for analyses. Winter releases resulted in the greatest number of returns from the Florida east coast and Keys, and few or none from other areas. Spring and summer releases resulted in high percentages of returns from the lower west Florida coast (Area 1), primarily between Tampa and Ft. Myers. The greatest number of returns from the western Gulf of Mexico (Area IV) was from summer and fall releases. A combination of Gulf of Mexico Loop Current data from other cruises during this period, temperature and salinity measurements taken on the Hourglass cruises, and wind analysis aided our interpretation of possible mechanisms associated with drift trajectories. A sequential pattern of Loop Current development (intrusion, spreading, eddy formation, decay) has been well documented by hydrographic and satellite data.

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ACC 542; TYPE ; YEAR 1975
WILLIAMS, G.N.; HANN, R.; JAMES, W.D.;
PREDICTION THE FATE OF OIL IN THE MARINE ENVIRONMENT.

BIBL PROCEEDINGS OF THE 1975 CONFERENCE ON THE PREVENTION AND CONTROL OF OIL POLLUTION, MARCH 25, SAN FRANCISCO, CA.

KEYWORD: geology, model, oil slick, oil spill, oil, continental shelf, physical process chemistry

ABSTRACT: Not available.

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ACC 4309; TYPE P; YEAR 1977
WILLIAMS, D.C.; STANG, P.R.; HYDE, B.;
STATE INFORMATION NEEDS RELATED TO ONSHORE AND NEARSHORE EFFECTS OF OCS PETROLEUM DEVELOPMENT.

BIBL PREPARED BY BUREAU OF LAND MANAGEMENT AND MINERALS PROGRAM DEVELOPMENT AND ANALYSIS. 191 P.

KEYWORD: continental shelf, petroleum

ABSTRACT: The United States currently has underway a program to develop tracts on the Outer Continental Shelf (OCS) for their petroleum resources that can have significant impact on and near the shore. The potentially affected States bordering the Atlantic and Pacific Oceans and the Gulf of Mexico have expressed serious concerns about the availability and adequacy of the information they need to make planning and management decisions about onshore activities and impacts related to OCS petroleum development. This report discusses state policies, major concerns, organization, planning approaches and relation to other state planning efforts.

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ACC 710; TYPE ; YEAR 1973
WILLING, T.E.; DARNELL, R.M.; IBRAHIM, M.A.; BERNER, L.;
CALORIC VALUES OF MARINE ANIMALS FROM THE GULF OF MEXICO.

BIBL CONTRIB. MAR. SCI. 17:1-7.

KEYWORD: invertebrate, benthos, caloric content, fish, geology, plankton

ABSTRACT: Not available.

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ACC 1038; TYPE ; YEAR 1972
WILSON, C.R.;
A VITAMIN B12 STUDY IN PORTIONS OF ESCAMBIA AND BLACKWATER BAYS, FLORIDA.

BIBL MASTER'S THESIS. UNIVERSITY OF WEST FLORIDA, PENSACOLA, FL. 70 PP.

KEYWORD: light attenuation, microfauna, pH, salinity, vitamin, water temperature, bacteria, turbidity

ABSTRACT: Vitamin B12 was measured by the lactobacillus and ochromonas assays from 5 stations in Mulatto Bayou and Catfish Basin, Florida between August and October, 1978. Other measurements included depth, temperature, pH, salinity. turbidity, and bacterial counts.

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ACC 2539; TYPE P; YEAR 1975
WIMAN, S.K.; MCKENDREE, W.G.;
DISTRIBUTION OF HALIMEDA PLANTS AND SEDIMENTS ON AND AROUND A PATCH REEF NEAR OLD RHODES KEY, FLORIDA.

BIBL J. SED. PETROL. 45(2):415-421.

KEYWORD: Dade, sediment, reef, substrate, currents

ABSTRACT: Examination of sedimentation of Old Rhodes Key revealed the role played by species of Halimeda in calcium carbonate sedimentation. Seven species of Halimeda were found at the reef. Sedimentation is dependent on morphological characteristics, life cycles, and reproduction rates. Halimeda also influences sedimentation by acting as a substrate for other sediment-contributing organisms, by binding sediments in the substrate and by reducing current, velocities.

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ACC 100; TYPE ; YEAR 1976
WISEMAN, W.J.; WRIGHT, L.D.; ROUSE, L.J.; COLEMAN, J.M.;
PERIODIC PHENOMENA AT THE MOUTH OF THE MISSISSIPPI RIVER.

BIBL CONTRIB. MAR. SCI. 20:11-32.

BKEYWORD: hydrography, physical process, temperature anomaly, temperature, remote sensing, wave

ABSTRACT: Time series of temperature fluctuations, as well as aerial and satellite imagery, indicate the presence of periodic phenomena within the effluent from South Pass, Mississippi River Delta. Time scales on the order of 1 min and 15 min recur in both remotely sensed and in situ data, a fact which suggests that the same phenomenon is being measured. Vertical coherence estimates indicate this to be internal wave motion. Estimates of gross Richardson numbers are near critical; instabilities in the wave field are a possible

mechanism for entrainment, but cannot account for all the required entrainment

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ACC 101; TYPE ; YEAR 1976
WISEMAN, W.J.; BANE, J.M.; MURRAY, S.P.; TUBMAN, M.W.;
SMALL SCALE TEMPERATURE AND SALINITY STRUCTURE OVER THE INNER SHELF WEST OF THE MISSISSIPPI RIVER DELTA.

BIBL MEM. SOC. R. SCI. LIEGE 6(10):277-285.

KEYWORD: circulation, hydrography, physical process, water mass, temperature, salinity

ABSTRACT: More than 400 STD profiles collected during a single year immediately west of the Mississippi River Delta were used to determine the fate of the effluent plume from Southwest Pass. The dominant surface drift pattern within the plume is anticyclonic (westward and toward the coast). Vertically, the plume mixes intermittently with ambient coastal water, and a series of steps in the temperature and salinity profiles is produced.

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ACC 106; TYPE ; YEAR 1978
WISEMAN, W.J.; ROUSE, L.J.; HUH, O.K.;
MIXED LAYER MODELS FOR COASTAL WATERS. PAGES 2619-2632 IN PROCEEDINGS OF THE 16TH COASTAL ENGINEERING CONFERENCE, ASCE, AUGUST 28-SEPTEMBER 1, 1978, HAMBURG, WEST GERMANY.

BIBL AMERICAN SOCIETY OF CIVIL ENGINEERS.

KEYWORD: hydrography, mathematical model, physical process, river discharge

ABSTRACT: The applicability of oceanic mixed-layer models to the case of wind mixing in a coastal region dominated by river runoff is explored. Two-dimensional effects and the propagation of internal-inertial waves out of the mixed layer are seen to be extremely important. Modification of the boundary conditions changes the appearance of the solutions as well. Further field work will be necessary to determine if additional terms, ignored in the oceanic models, might become important in the coastal region.

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ACC 2549; TYPE P; YEAR 1968
WITHAM, R.; INGLE, R.M.; JOYCE, E.A., JR.;
PHYSIOLOGICAL AND ECOLOGICAL STUDIES OF PANULIRUS ARGUS FROM THE ST. LUCIE ESTUARY.

BIBL FLA. BD. CONSERV. MAR. LAB., TECH. SER. NO. 53. 31 P.

KEYWORD: spiny lobster, artificial habitat, salinity, temperature, stress, mortality

ABSTRACT: Postlarval spiny lobsters (Panulirus argus) were captured with artificial habitats in St. Lucie Estuary over a 2 year period. A monthly influx of postlarval lobsters was found except in the summer of 1966 when salinity declined drastically. In salinity tolerance tests, high mortalities were found at salinities less than 19 o/oo. No phyllosome larvae were found in plankton samples of the Indian River area. Growth measurements indicated that the size of individuals raised under the same conditions cannot be directly correlated with age.

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ACC 2184; TYPE P; YEAR 1976
WOELKERLING, W.J.;
SOUTH FLORIDA BENTHIC MARINE ALGAE. SEDIMENTA V.

BIBL THE COMPARATIVE SEDIMENTOLOGY LABORATORY, DIV. OF MAR. GEOL. & GEOPHYS. UNIV. OF MIAMI.

KEYWORD: benthic, algae, community, habitat

ABSTRACT: Illustrated keys to the genera of green, brown, and red algae and to the genera and species of blue-green algae commonly found in marine benthic communities of Florida were presented. A glossary of morphological terms used in the keys, the literature pertaining to Florida marine algae, brief comments on marine algae habitats and communities and instructions for the collection, preservation, and examination of algae material were included.

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ACC 545; TYPE ; YEAR 1983
WOOD, B.K.; TREFRY, J.H.;
THE DISTRIBUTION AND PROVENANCE OF TRACE ELEMENTS IN EASTERN GULF OF MEXICO SEDIMENTS.

BIBL TRANS., GULF COAST ASSOC. GEOL. SOC., 33:455-456.

KEYWORD: continental shelf, distribution, geology, sediment, statistical analysis, trace element

ABSTRACT: Not available.

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ACC 2160; TYPE P; YEAR 1983
WOODWARD-CLYDE CONSULTANTS & CONTINENTAL SHELF ASSOCIATES, INC.;
SOUTHWEST FLORIDA SHELF ECOSYSTEMS STUDY-YEAR 1. FINAL REPORT AND 2 APPENDICES.

BIBL PREPARED FOR U.S. DEPARTMENT OF INTERIOR, MINERALS MANAGEMENT SERVICE, METAIRIE, LA. CONTRACT 14-12-0001-29142.

KEYWORD: continental shelf, sediment, substrate, trace metal, live bottom, temperature, salinity, DO, light, nutrient, chlorophyll

ABSTRACT: Results of an extensive study of the southwest Florida continental shelf are given. The study was conducted because of potential oil and gas deposits beneath the outer shelf. Chapters describe these major areas of study: geophysical investigations, underwater camera observations, water quality, sediment and substrate characteristics, trace metals, soft and live bottom biota, and potential impacts of gas and oil operations. Two appendices include supporting data (A) and methodology (B). The study will encompass 3 years.

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ACC 2161; TYPE P; YEAR 1983
WOODWARD-CLYDE CONSULTANTS & CONTINENTAL SHELF ASSOCIATES, INC.;
SOUTHWEST FLORIDA SHELF ECOSYSTEMS STUDY--YEAR 1. EXECUTIVE SUMMARY.

BIBL PREPARED FOR U.S. DEPARTMENT OF INTERIOR, MINERALS MANAGEMENT SERVICE, METAIRIE, LA. CONTRACT 14-12-0001-29142.

KEYWORD: continental shelf, sediment, substrate, trace metal, live bottom

ABSTRACT: A summary is given of year 1 data from the study of the southwest Florida continental shelf. The study was done because of potential oil and gas deposits beneath the outer shelf. Brief chapters describe these areas of study: geophysical investigations, underwater camera observations, water quality, sediment and substrate characteristics, trace metals, soft and live bottom biota, and potential impacts of oil and gas operations.

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ACC 2319; TYPE P; YEAR 1960;
WOODBURN, K.D.;
SARASOTA COUNTY MARINE SURVEY.

BIBL FLA. ST. BD. CONSER. MAR. LAB. FSBCML NO. 60-15, CS NO. 60-1.

KEYWORD: Sarasota, pink shrimp, blue crab, seagrass, depth, salinity

ABSTRACT: An evaluation of marine productivity and seafood potential was made to guide the Sarasota County commission in conserving present resources and adding aquaculture to the existing economy was described. Thirty two fish species were collected. Small pink shrimp and blue crabs were found at all grass stations. Seagrasses were found to be abundant in the county water. Oyster predators including crown conchs, Florida horse conchs, and banded tulips were present throughout the study area. Black Bay and Buttonwood Harbor were recommended as potentially good north hard shell clam growing spots because of suitable salinities, sufficient water depth, favorable sandy mud bottoms, and limited urbanization.

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ACC 2334; TYPE P; YEAR 1962
WOODBURN, K.D.;
CLAMS AND OYSTERS IN CHARLOTTE COUNTY AND VICINITY.

BIBL FLA. BD. CONSERV. MAR. LAB., PUBL. NO. 62-12. 29 P.

KEYWORD: Charlotte, distribution, abundance, mollusc, temperature, salinity, tide, depth, substrate

ABSTRACT: A survey of commercial bivalves was conducted in Charlotte County, Florida during June 1962. Three species of commercial significance inhabit the area: Crassostrea virginica, Rangia cuneata, Mercenaria canpechiensis. Forty-two hydrographic stations were sampled for temperature, salinity, tidal phase, depth, and bottom type. The distribution, size, and abundance of each of the 3 species is summarized for 18 bodies of water and generally related to the physical parameters measured.

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ACC 4153; TYPE P; YEAR 1979
WOODWARD-CLYDE CONSULTANTS;
EASTERN GULF OF MEXICO MARINE HABITAT STUDY.

BIBL A REPORT FOR THE U.S. DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT, WASHINGTON, D.C. CONTRACT NO. AA551-CT8-22. 2 VOL.

KEYWORD: continental shelf, baseline study, photodocumentation, epibiota, live bottom, geology, geophysical, biology, benthic

ABSTRACT: Marine benthic habitats on the continental shelf off west Florida were delineated prior to Oil and Gas Lease Sale 65 using underwater video and geophysical methods. A total of 49 lease blocks were surveyed including 3 in the Pensacola Area, 17 in the Destin Dome Area, 5 in the Tarpon Springs Area, 4 in the Elbow Area, 8 in the St. Petersburg Area, and 12 in

the Charlotte Harbor Area. Soft bottom (thick sand or silt) was the most widespread seafloor type, butrse bottom (soft bottom with a surface rubble layer), hard bottom (low relief, often scattered and/or partially buried outcrops), and high-relief pinnacles were locally abundant in some blocks. The biota associated with hard bottom and pinnacles typically included (depending on location) sea feathers and fans, hard corals, sponges, encrusting coralline algae, starfishes, sea urchins, and a variety of bottom fishes. The most luxuriant and diverse epibiota was noted in association with large areas of scattered low-relief carbonate outcrops in Charlotte Harbor Area Blocks 143, 144, 145, and 188. Locations recommended for further study included: extensive hard bottom areas in Tarpon Springs Area Blocks 233, 234, 277, 278, and 279; small outcrops in portions of Elbow Area Block 567; areas of scattered low relief, limestone outcrops in St. Petersburg Area Blocks 661, 662, 705 and 706; and extensive areas of low-relief outcrops in Charlotte Harbor Area Blocks 143, 144, 145, and 188.

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ACC 4154; TYPE P; YEAR 1983
WOODWARD-CLYDE CONSULTANTS &
SKIDAWAY INSTITUTE OF OCEANOGRAPHY;
SOUTHWEST FLORIDA SHELF ECOSYSTEM--YEAR 2 MODIFICATION.

BIBL A REPORT FOR THE U.S. DEPARTMENT OF INTERIOR, MINERALS MANAGEMENT SERVICE GULF OF MEXICO OFFICE, METAIRIE, LA. CONTRACT NO 14-12-0001-29144.

KEYWORD: circulation, continental shelf, eddy intrusion, irradiance, remote sensing, biology, loop current, physical oceanography, phytoplankton, primary productivity

ABSTRACT: Three independent evaluation methods (field sampling, optical measurements, and remote sensing) confirmed the presence of an upwelling event on the southwest Florida shelf. Upwelling consists of a warm water extension. or filament, of the loop current with a pocket of cooler upwelled water occurring between the filament and the Loop Current. Surface extent of an upwelling may be more than 200 km and subsurface extent at least 100 km. Generally, the frontal edge and cold core propagated southeastward for a distance of 95 km; concurrently, the Loop Current moved offshore. Primary productivity affected by Loop current moved offshore. Primary productivity affected by Loop Current intrusions were six times higher than unaffected waters. These observations were due to higher nutrient concentrations associated with deeper Loop Current waters upwelled during shelfward movement of the current edge. Productivity values were higher during the summer cruise as opposed to the spring cruise data values. Remote ocean color scanner imagery agreed with shipboard measurements of surface chlorophyll gradients and verified the oligotrophic nature of the upper 10 m. Loop current frontal eddies occurring off the southwest Florida shelf similar to Gulf Stream frontal eddies observed off the southeastern U.S. Shelf in terms of length scales and speeds.

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ACC 4155; TYPE P; YEAR 1983
WOODWARD.CLYDE CONSULTANTS &
CONTINENTAL SHELF ASSOCIATES, INC.;
SOUTHWEST FLORIDA SHELF ECOSYSTEMS STUDY MARINE HABITAT ATLAS.

BIBL A REPORT FOR THE U.S. DEPARTMENT OF INTERIOR, MINERALS MANAGEMENT SERVICE GULF OF MEXICO OFFICE, METAIRIE, LA. CONTRACT NOS. 14-12-0001-29142 AND ET AL

KEYWORD: baseline study, continental shelf, live bottom, geology, geophysical, photodocumentation, epibiota, biology, benthic

ABSTRACT: Substrates and biological communities on the southwest Florida shelf were investigated using side-scan sonar, subbottom profiler, and video/still camera system towed along five east-west transects and one north-south transect in water depths ranging from 20 to 200 m. This information was used to produce two regional maps of marine habitats, prepared at a scale of 1:500,000, and 43 maps at a scale of 1:48,000. The relationships among water depth, substrate types, and biological assemblages along each transect as well as location relative to OCS lease blocks are included. Five substrate categories defined and mapped were: (1) Rock Outcrops/Hard Bottom; (2) Thin Sand Over Hard Substrate; (3) Sand Bottom/Soft Bottom; (4) Coralline Algal Nodule Layer Over Sand; and (5) Algal Pavement with Agaricia Accumulations. Nine biological assemblages were recognized and mapped including: 1) Inner and Middle Shelf Sand Bottom Assemblage; (2) Inner Shelf Live Bottom Assemblages; (3) Inner and Middle Shelf Live Bottom Assemblage II; (4) Middle Shelf Algal Nodule Assemblage; (5) Agaricia Coral Plate Assemblage; (6) Outer Shelf and Bottom Assemblage; (7) Outer Shelf Crinoid Assemblage; (8) Outer Shelf Prominences Live Bottom Assemblage; and (9) Outer Shelf Low-Relief Live Bottom Assemblage.

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ACC 4156; TYPE P; YEAR 1985
WOODWARD-CLYDE CONSULTANTS &
CONTINENTAL SHELF ASSOCIATES, INC.;
SOUTHWEST FLORIDA SHELF ECOSYSTEMS STUDY--YEAR 2.

BIBL A REPORT FOR THE U.S. DEPARTMENT OF THE INTERIOR, MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGION, METAIRIE, LA. CONTRACT NO. 14-12-0001-29144.

KEYWORD: biology, benthic, baseline study, continental shelf, demersal fish, epibiota, fish, geology, geophysical, infauna, hydrography, multivariate analysis

ABSTRACT: Not available.

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ACC 79; TYPE ; YEAR 1970
WRIGHT, L.D.; SWAYE, F.W.; COLEMAN, J.M.;
EFFECTS OF HURRICANE CAMILLE ON THE LANDSCAPE OF THE BRETON-CHANDELEUR ISLAND CHAIN AND THE EASTERN PORTION OF THE LOWER MISSISSIPPI DELTA.

BIBL CENTER FOR WETLAND RESOURCES, LOUISIANA STATE UNIVERSITY, BATON ROUGE, LA.
BULL. NO. 4:13-34.

KEYWORD: hurricane, physical process, sediment transport

ABSTRACT: Air and ground reconnaissance immediately following the passage of Hurricane Camille disclosed significant modifications to the natural landscape of the Breton-Chandeleur Island arc and to the eastern portion of the lower Mississippi Delta. Considerable dissection and redeposition was evident along beach and barrier formations, and total obliteration dominated numerous sections. Trends of redistributed beach material strongly reflected the final direction of hurricane-induced mass transport of water. In the lower delta, damage was mainly to marsh vegetation and was attributable to high water and surge currents directed almost entirely from north to south.

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ACC 4216; TYPE P; YEAR 1978
WYANT, T.;
CALIBRATION OF A SIMPLE OIL SPILL TRAJECTORY MODEL USING THE ARGO MERCHANT SPILL.
BIBL OPEN-FILE REPT. 78-334. 13 P.

KEYWORD: oil spill, biological, pollutant, model

ABSTRACT: An oil spill risk analysis was conducted to determine the relative environmental hazards of developing oil in different regions of the Eastern Gulf of Mexico Outer Continental Shelf lease area. The study analyzed the probability of spill occurrence, likely paths of the spills, and locations in space and time of such objects as recreational and biological resources likely to be vulnerable. These results combined to yield estimates of the overall oil spill; risk associated with development of the proposed lease area. This risk is compared to the existing oil spill risk from existing leases in the area. The analysis implicitly includes estimates of weathering rates and slick dispersion and an indication of the possible mitigating effects of cleanups.

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ACC 4217; TYPE P; YEAR 1978
WYANT, T.; SLACK, J.R.;
AN OILSPILL RISK ANALYSIS FOR THE EASTERN GULF OF MEXICO (PROPOSED SALE 65) OUTER CONTINENTAL SHELF LEASE AREA.

BIBL OPEN-FILE REPT. 78-132. 72 P.

KEYWORD: oil spill, biological, pollutant, model

ABSTRACT: An oil spill risk analysis was conducted to determine the relative environmental hazards of developing oil in different regions of the Eastern Gulf of Mexico Outer Continental Shelf lease area. The study analyzed the probability of spill occurrence, likely paths of the spills, and locations in space and time of such objects as recreational and biological resources likely to be vulnerable. These results combined to yield estimates of the overall oilspill risk associated with development of the proposed lease area. This risk is compared to the existing oilspill risk from existing lease in the area. The analysis implicitly includes estimates of weathering rates and slick dispersion and an indication of the possible mitigating effects of cleanups.

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ACC 4294; TYPE P; YEAR 1978
WYANT, T.; SLACK, J.R.;
AN OIL SPILL RISK ANALYSIS FOR THE EASTERN GULF OF MEXICO (PROPOSED SALE 65). OUTER CONTINENTAL SHELF LEASE AREA.

BIBL U.S. GEOL. SURV. (WASHINGTON, D.C.) 78(132):72 P.

KEYWORD: oil spill, petroleum, pollution, continental shelf

ABSTRACT: Not available.

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ACC 2495; TYPE P; YEAR 1978
WYNNE, D.M.;
LOW TEMPERATURE EFFECTS ON BEHAVIOR IN SPINY LOBSTERS, PANULIRUS ARGUS (CRUSTACEA PALINURIDAE).

BIBL MASTER'S THESIS. FLORIDA STATE UNIVERSITY, TALLAHASSEE, FL.

KEYWORD: Monroe, temperature, behavior, spiny lobster, salinity

ABSTRACT: With the use of different cooling rates the locomotory and feeding behaviors of Panulirus argus from the Florida Keys were studied. Warm-acclimated lobsters subjected to cooling showed critical minimum temperatures of 12 degrees and 14 degrees C. Cold-acclimated lobsters which were cooled showed a minimum temperature of 10 degrees C. It is suggested that P. argus cannot withstand thermally variable waters below 12 degrees C and is probably unable to traverse deep water straits with temperatures below 10 degrees C.

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ACC 2204; TYPE P; YEAR 1982
YARBO, L.A.; CARLSON, P.R.; ZIMMERMAN, C.F.; MOMTGOMERY, J.R.;
SEDIMENT-WATER EXCHANGE OF NUTRIENTS IN THE INDIAN RIVER LAGOON IN FLORIDA.

BIBL FLORIDA SCI. 45 (SUPPL 1):37

KEYWORD: nutrient, sediment, grassbed, seagrass, ammonia, silicate

ABSTRACT: Fluxes of nutrients across the sediment-water interface was measured in situ (in clear domes) in grassbeds and sandy areas. Ammonia concentrations and filterable reactive phosphorus (FRP) remained the same or decreased during daylight when chamber oxygen was increasing, and increased at night when chamber oxygen decreased. Fluxes of ammonia, FRP and silicates were generally greater from silty seagrass sediments than nearby sandy areas. Primary producers at the sediment-water interface appear to affect flux of nutrients into the water column during the day.

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ACC 4299; TYPE P; YEAR 1985
YINGST, J.Y ; RHOADS, D.C.;
STRUCTURE OF SOFT-BOTTOM BENTHIC COMMUNITIES IN THE VICINITY OF THE TEXAS FLOWER GARDEN BANKS, GULF OF MEXICO.

BIBL EST. COAST. SHELF SCI. 20:569-592.

KEYWORD: benthic, community, biological, sediment, continental shelf, ATP, infaunal

ABSTRACT: Biological and sedimentological samples were obtained in June 1980 from box cores taken in 100-200 meters of water on sandy-mud sediments near the East and West Flower Garden Bank (FGH) reefs, on the Texas-Louisiana Continental Shelf. The objective was to obtain needed and unknown baseline information about sedimentary parameters and organisms of the FGB environment to allow inferences to be made about the potential effects of physical disturbances of the seafloor on the indigenous benthos. Both microbial ATP and bacterial biomass are lower than reported for the Georgia Bight Shelf, Brazil-Amazon River Shelf, Cap Blanc, West African Shelf, western coast of Norway, and Long Island Sound. Bacterial counts are comparable to the Amazon River Shelf and lower than those recorded for the East China Sea. Moderate to low standing stocks of benthos further suggest that this area of the Gulf of Mexico is a relatively oligotrophic system for infaunal benthic consumers. [Copyright (c) 1985 Academic Press Inc. (London) Limited.]

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ACC 2162; TYPE P; YEAR 1974
YOCKEY, R.H.;
AN ECOLOGICAL SURVEY OF SPONGES FROM THE EASTERN GULF OF MEXICO.

BIBL MASTER'S THESIS. UNIVERSITY OF FLORIDA. GAINESVILLE, FL. 59 P.

KEYWORD: sponge, community, depth, substrate, distribution

ABSTRACT: Collection of sponges from Cedar Key and Crystal River areas to Key West from April-June 1973 revealed several interesting observations on sponge communities. One hundred sixty two specimens from 25 of the 57 stations were classified into 125 species. Only 7.2% were recovered from more than one site, while 9.6% were recovered at more than one station. Mean depth range was 19.8 m, while sampling occurred to 180 m. Depth has a significant effect upon species composition and substrate is the primary factor influencing sponge distribution.

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ACC 2377; TYPE P; YEAR 1979
YOKEL, B.J.;
APPENDIX E--BIOLOGY.

BIBL IN: THE NAPLES BAY STUDY, COLLIER COUNTY CONSERVANCY REPORT.

KEYWORD: Collier, physical, chemical, biological, community, diversity, seasonal, fish, temperature, salinity, DO, sediment

ABSTRACT: An examination of the physical and chemical conditions in Naples Bay and its associated waterways was made to determine their effect on water quality and biological conditions in this system. Remedies for poor water quality and impoverished biological conditions in existing developed areas were sought. Four measures of community structure were used to measure and compare the areas. These indices included: 1) the total catch or density of benthic animals; 2) the Shannon-Weaver diversity index; 3) recurrent groups of animals from various habitats in the bay; and 4) the total number of species. 96,693 animals belonging to 383 taxa in 15 phyla or classes were collected. Seasonal influence was observed on the total number of animals. Peaks in the total catch were observed in July and November. The high catches in July represent a population that was tolerant of low and fluctuating salinities produced by the summer rain and freshwater input. The November catches were highest for the year and came after the wet season where salinity and DO stresses were minimal. A total of 374 samples containing 71,110 small fish belonging to 61 species were studied. The bay anchovy and the yellow fin menhaden were dominant and accounted for 88% of the total fish catch. The plankton study was of 374 samples containing 76,978 fish in 71 species. In Naples Bay, the seasonal abundance pattern for these larval fish was typical of the plankton community that exhibits peaks in spring and fall. The 5 major habitats or areas of study were discussed separately.

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ACC 1077; TYPE ; YEAR 1966
YOKEL, B.J.;
A CONTRIBUTION TO THE BIOLOGY AND DISTRIBUTION OF THE RED DRUM, SCIAENOPS OCELLATA.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. CORAL GABLES, FL. 160 PP.

KEYWORD: biology, ecology, fish, fishery, life history, species composition

ABSTRACT: Not available.

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ACC 2375; TYPE P; YEAR 1975
YOKEL, B.J.;
ROOKERY BAY LAND USE STUDIES AND ENVIRONMENTAL PLANNING STRATEGIES FOR THE DEVELOPMENT OF A MANGROVE SHORELINE. STUDY NO. 5, ESTUARINE BIOLOGY.

BIBL CONSERV. FOUND. OFF. WATER RES. TECH. PB-250-121:112 P.

KEYWORD: Collier, benthic, fish, crustacean, mollusc, temperature, salinity, DO, currents

ABSTRACT: A quantitative assessment and description of the kinds and numbers of benthic animals that inhabited benthic environments in the Rookery Bay Sanctuary was presented. The relative abundance and distribution of the fish, crustaceans, and molluscs in the major benthic environments were described for use in assessing ecological change in these areas.

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ACC 2376; TYPE P; YEAR 1975
YOKEL, B.J.;
A COMPARISON OF ANIMAL ABUNDANCE AND DISTRIBUTION IN SIMILAR HABITATS IN ROOKERY BAY, MARCO ISLAND AND FAKAHATCHEE ON THE SOUTHWEST COAST OF FLORIDA.

BIBL PRELIMINARY REPORT TO THE DELTONA CORP. (NOT FOR GENERAL DISTRIBUTION).

KEYWORD: Collier, crustacean, fish, mollusc, physical, geographic, temperature, salinity, DO

ABSTRACT: The 3 study areas located in Rookery Bay Sanctuary, near Marco Island and in Fakahatchee Bay produced 1,006,640 individual animals of which 55% came from the Marco Island area. When only the major classes of animals in the catch were considered (i.e., crustaceans, fish, and molluscs) the totals count for Fakahatchee and Marco were quite comparable but both exceeded Rookery Bay by a considerable margin. It was thus hypothesized from a consideration of gross catches and physical and geographic factors that Fakahatchee Bay and Marco have more in common than any combination involving Rookery Bay. Total catches by habitat types for crustaceans, fish and molluscs and certain of the more abundant species demonstrated clearly the overwhelming importance of the vegetated bottom as a habitat for animals. Fifty-four percent of the total catch of animals were collected in the vegetated habitats. The mud habitat was next with 28% and the sand-silt habitat was third with 18%. By habitat, the vegetated areas had the most "indicator species," mud next, and sand-shell third. From the data it was concluded that using selected groups of species that have shown consistent catch rates between the study areas would allow detection and estimation of environmental change.

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ACC 2496; TYPE P; YEAR 1976
ZIEMAN, J.C.;
THE ECOLOGICAL EFFECTS OF PHYSICAL DAMAGE FROM MOTORBOATS.

BIBL AQUAT. BOT. 2:127-139.

KEYWORD: Monroe, sediment, seagrass

ABSTRACT: A report on the ecological effects of motorboat damage revealed that beds of turtle grass, Thalassia testudinum, although highly productive do not recover rapidly following physical disturbance of the rhizome system. In shallow waters, the most common flora of rhizome disturbance was determined to be from the propellers of motorboats. In Thalassia beds which were otherwise thriving, tracks resulting from propellers were observed to persist from two to five years. The proportion of fine sediment components was reduced in the sediments from the boat tracks, and the pH and Eh were also reduced in comparison to the surrounding grassbed. Damage of this type was found to most often occur in shallow passes between islands and keys. These areas were also reported to be the slowest to recover due to the rapid tidal currents.

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ACC 2540; TYPE P; YEAR 1975
ZIEMAN, J.;
SEASONAL VARIATION OF TURTLE GRASS, THALASSIA TESTUDINUM KONIG WITH REFERENCE TO TEMPERATURE AND SALINITY EFFECTS.

BIBL AQUAT. BOT. 1:107-123.

KEYWORD: Dade, seasonal, temperature, salinity, seagrass

ABSTRACT: Seasonal variations in the growth of turtle grass, Thalassia testudinum, were demonstrated in Biscayne Bay, Florida, and related to temperature and salinity conditions. Measurements of productivity, standing crop, leaf length, blade density and other biotic parameters were maximum during summer months. Temperature and salinity optima for Thalassia were

determined to be 30 degrees C and 30 o/oo, respectively. Minimum growth values occurred during periods of seasonally low temperatures or high temperatures in combination with lowered salinity. The slow response of Thalassia testudinum to environmental stress was attributed to stored starch reserves in the extensive rhizome system.

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ACC 2541; TYPE P; YEAR 1968
ZIEMAN, J.C.;
A STUDY OF THE GROWTH AND DECOMPOSITION OF THE SEAGRASS, THALASSIA TESTUDINUM.

BIBL MASTER'S THESIS. UNIVERSITY OF MIAMI. MIAMI, FL.

KEYWORD: Dade, seagrass, growth

ABSTRACT: A technique for studying the comparative blade dynamics of a Thalassia testudinum community was described. The patterns of the new blades were similar in both communities. A marked decline in the new blades produced was noted in May and this was believed to be linked with the output of flowers or fruit. The net change in numbers of the blades and average growth rates for the communities were presented, and a technique was described that measured the amount of leaf material produced. The growth pattern of blades on a branch was demonstrated and the respective growth rates of the individual blades on the branch were given. The length of time required for a branch to put out a new blade was 14-16 days. The increase of blade width with increasing distance from the rhizome meristem was observed. A correlation between the average growth rate of the community and the average blade width of the community was demonstrated. Most of the blade growth was basal, but elongation continues some distance from the blade meristem. A description of the decomposition of blades of Thalassia was reported in addition to the decay rates. It was demonstrated that predrying has an accelerating effect on the decay rates. Thalassia testudinum was calculated to have a faster decay rate than Spartina thus being available to detritus feeders at a faster rate.

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ACC 2553; TYPE P; YEAR 1980
ZIMMERMAN, C.F.;
SEDIMENT SIZE ANALYSIS OF SEDIMENTS COLLECTED FROM HALODULE WRIGHTII SEAGRASS BEDS.

BIBL HARBOR BRANCH FOUND., INC., TECH. REPT. NO. 32. 29 P.

KEYWORD: sediment, seagrass, grain size

ABSTRACT: Six sediment cores were collected at various depths from a Halodule wrightii grassbed in the Indian River, Florida and analyzed for grain size. The upper 15 cm of the sediment was relatively uniform with 95-98% sand. Below 15 cm sediments were more heterogeneous, with layers of sand and clay/sand.

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ACC 2497; TYPE P; YEAR 1972
ZISCHKE, J.A.;
AN ECOLOGICAL GUIDE TO THE SHALLOW WATER MARINE COMMUNITIES OF PIGEON KEY, FLORIDA.

BIBL ST. OLAF COLLEGE, NORTHFIELD, MINNESOTA.

KEYWORD: Monroe, ecology, geography, geology, reef, algae, foraminifera, sponge, mollusc, echinoderm, physical, chemical, seagrass

ABSTRACT: A concise description of the ecology of the Pigeon Key, Florida area was presented. The geography and geology of the Pigeon Key area were described. The Key Largo limestone derived from these Pleistocene reefs was found to vary in composition and may include: large masses of coral skeleton (including species of the genera Montastrea, Diplora, Acropora, and Siderastrea), Halimeda (a calcareous algae), coralline algae, foraminiferans, bryozoans, sponge spicules, worm tubes, molluscan and coral debris, echinoderm spines, and fecal pellets, all of which are cemented together with calcite. Physical and chemical conditions including atmospheric conditions and surface water conditions were described. A detailed description of the life in the inshore intertidal regions of the Florida Keys was presented in terms of physical structure and plants and animals. The two distinct communities dominating the shallow water subtidal area of the reef flat, Alcyonaria sponge community and seagrass community, were described as were variations in these communities. Other shallow water communities including mangrove communities and coral reef communities were also discussed. Recommendations for the preservation of the Florida Keys in their present state were made.

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ZUBOY, J.R.; SNELL, J.E.;
ASSESSMENT OF THE FLORIDA STONE CRAB FISHERY, 1980-81 SEASON.

BIBL NOAA TECH. NMFS-SEFC-79. 21 P.

KEYWORD: crab, crustacean, commercial fishery, stone crab, landings (pounds), fishing effort, biology, benthic, coastal, invertebrate

ABSTRACT: Under the auspices of the Magnuson Fishery Conservation and Management Act of 1976, the National Marine Fisheries Service is responsible for providing scientific support for fishery management to the Regional Fishery Management Councils. Accordingly, this is the second annual report on the status of the Florida Stone crab (Menippe mercenaria) fishery which is being managed under the Fishery Management Plan for Stone Crabs by the Gulf of Mexico Fishery Management Council. The report updates the fishery statistics land reevaluates the previous estimate of MSY. The current best estimate of MSY is 1.88 million pounds of claws.

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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. Administration.