

ANNUAL REPORT

TO THE

TECHNICAL COORDINATING COMMITTEE

GULF STATES MARINE FISHERIES COMMISSION

OCTOBER 1, 2008 TO SEPTEMBER 30, 2009

SEAMAP Subcommittee

James G. Hanifen, Chairman

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SEAMAP Coordinator

October 3, 2009

GSMFC No: 176

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INTRODUCTION

The Southeast Area Monitoring and Assessment Program (SEAMAP) is a State/Federal/university program for collection, management and dissemination of fishery-independent data and information in the southeastern United States. The program presently consists of three operational components: SEAMAP-Gulf of Mexico, which began in 1981; SEAMAP-South Atlantic, implemented in 1983; and SEAMAP-Caribbean, formed in 1988.

Each SEAMAP component operates independently, planning and conducting surveys and information dissemination in accordance with administrative policies and guidelines of the National Marine Fisheries Service's Southeast Regional Office (SERO).

Federal programmatic funding for SEAMAP activities and administration was appropriated in Federal Fiscal Years 1985-2009 (October 1 through September 30). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY2009 were handled through State/Federal cooperative agreements, administered by SERO and the Southeast Fisheries Science Center (SEFSC), National Marine Fisheries Service (NMFS).

In FY2009, SEAMAP operations continued for the twenty-eighth consecutive year. SEAMAP resource surveys included the Fall Plankton Survey, Fall Shrimp/Groundfish Survey, Winter Shrimp/Groundfish Survey, Spring Shrimp/Groundfish Survey, Winter Plankton Survey, Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Reefish Survey, Inshore Longline Survey, and plankton and environmental data surveys. Other FY2009 activities included SEAMAP information services and program management.

This report is the twenty-sixth in a series of annual SEAMAP Subcommittee reports to the Technical Coordinating Committee (TCC) of the Gulf States Marine Fisheries Commission. It is intended to inform the TCC of SEAMAP-Gulf of Mexico activities and accomplishments during FY2009 and proposed SEAMAP activities for FY2010.

Appreciation is gratefully extended to the staff of the Gulf States Marine Fisheries Commission for their considerable assistance in the preparation of this document.

FY2009 SEAMAP RESOURCE SURVEYS

The surveys conducted during the year address distinct regional needs and priorities and provide information concerning the marine resources in the Gulf of Mexico. Other activities included SEAMAP information services and program management.

Fall Shrimp/Groundfish Survey

The Fall Shrimp/Groundfish Survey was conducted from September 23 to November 20, 2008, from off Tampa, Florida to the U.S.-Mexican border. Four hundred seventy-one stations were sampled

during the survey. Vessels sampled waters out to 60 fm with trawls and plankton nets in addition to environmental sampling. The objectives of the survey were to:

- (1) sample the northern Gulf of Mexico to determine abundance and distribution of demersal organisms from inshore waters to 60 fm;
- (2) obtain length-frequency measurements for major finfish and shrimp species to determine population size structures;
- (3) collect environmental data to investigate potential relationships between abundance and distribution of organisms and environmental parameters; and
- (4) collect ichthyoplankton samples to determine relative abundance and distribution of eggs and larvae of commercially and recreationally important fish species.

NMFS and Louisiana vessels collected ichthyoplankton data with bongo and/or neuston nets at sample sites occurring nearest to half-degree intervals of latitude/longitude. The Polish Sorting and Identification Center will sort the samples. Once sorted, the specimens and data will be archived at the SEAMAP Archiving Center.

Winter and Spring Shrimp/Groundfish Surveys

A new Winter Shrimp/Groundfish Survey took place from January 21 to February 24. One hundred fifteen stations were sampled during the survey that used protocols similar to the other shrimp/groundfish surveys. A new Spring Shrimp/Groundfish Survey also took place from March 15 to March 17 collecting data at 31 stations.

Winter Plankton Survey

The SEAMAP Winter Plankton Survey took place from February 4 to March 16, 2009. Ichthyoplankton samples were collected at 137 SEAMAP stations. The objectives of the survey were to assess the occurrence, abundance and geographical distribution of the early life stages of winter spawning fishes from mid continental shelf to deep Gulf waters; measure the vertical distribution of fish larvae by sampling at discrete depths in the water column using a 1-meter Multiple Opening and Closing Net Environmental Sensing System (MOCNESS); sample the size fraction of fishes that are underrepresented in bongo and neuston samples using a juvenile (Methot) fish trawl; and measure extrusion of the smallest size fraction of fish larvae through the standard SEAMAP bongo net by collecting samples at selected locations with a bongo frame fitted with a 333 micron net on one side and a 202 micron mesh net on the other side.

Spring Plankton Survey

The SEAMAP Spring Plankton Survey took place from March 29 to June 1, 2009. Ichthyoplankton samples were collected at 79 stations. This was the twenty-eighth year for the survey. The objectives of the survey were to collect ichthyoplankton samples for estimates of the abundance and

distribution of Atlantic bluefin tuna larvae and collect environmental data at all ichthyoplankton stations.

Plankton samples were taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consisted of two conical 61-cm nets with 333-micron mesh. Tows were oblique, surface to near bottom (or 200 m) and back to surface. A mechanical flowmeter is mounted off-center in the mouth of each bongo net to record the volume of water filtered. Volume filtered ranges from approximately 20 to 600 m³ but is typically 30 to 40 m³ at the shallowest stations and 300 to 400 m³ at the deepest stations. A single or double 2x1 m pipe frame neuston net fitted with 0.947 mm mesh netting is towed at the surface with the frame half-submerged for 10 minutes. Samples are taken upon arrival on station regardless of time of day. At each station either a bongo and/or neuston tow are made depending on the specific survey. Samples are routinely preserved in 5 to 10 % formalin and later transferred after 48 hours to 95 % ethanol for long term storage. During some surveys selected samples are preserved initially in 95 % ethanol and later transferred to fresh ethanol. In addition, hydrographic data (surface chlorophylls, salinity, temperature and dissolved oxygen from surface, midwater and near bottom, and Forel-ule color) were collected at all stations.

Right bongo and neuston samples collected from SEAMAP stations were transshipped to the Polish Sorting and Identification Center. Left bongo samples were archived at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC).

Inshore Longline Survey

This nearshore survey complements an existing long-term fisheries independent survey currently being conducted by NMFS, by targeting shark species within the shallow waters of the north central Gulf of Mexico. The objectives of the survey are to collect information on coastal shark abundances and distribution with a 1-mile longline and also to collect environmental data. During FY2009, eight stations were sampled in October 2008. Sixty-four stations were sampled from March to September 2009.

Reeffish Survey

The primary purpose of this survey was to assess relative abundance and compute population estimates of reef fishes found on natural reef fish habitat in the Gulf of Mexico. Two types of gear were used to deploy video cameras: 1) a single-funnel fish trap (2.13 m long by 0.76 m square) with the camera mounted at a height of 25 cm above the bottom of the trap; or 2) a 4 camera array with 4 cameras mounted orthogonal to each other at a height of 25 cm above the bottom. Both gears were baited with squid before deployment. The resultant video recordings (typically of one hour duration) were processed back at the laboratory where fishes were identified and counted independently by two tape readers. Final counts were entered into the SEAMAP reef fish database along with additional observations on habitat and fish activity. NMFS conducted reeffish sampling with fish traps and video cameras from April 14 to May 29, 2009 on the OREGON II. Approximately 254 stations were sampled.

Summer Shrimp/Groundfish Survey

The overall sampling strategy during the 2009 SEAMAP summer survey was to work from the eastern Gulf to the Texas/Mexico border, in order to sample during or prior to migration of brown shrimp from bays to the open Gulf area. The Survey was conducted from June 1 to July 17, 2009. This was the twenty-eighth year for the survey. In addition, NMFS, Mississippi, and Louisiana vessels collected ichthyoplankton data.

Objectives of the survey were to:

- (1) monitor size and distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf;
- (2) aid in evaluating the “Texas Closure” management measure of the Gulf Council's Shrimp Fishery Management Plan; and
- (3) provide information on shrimp and groundfish stocks across the northern Gulf of Mexico from inshore waters to 50 fm.

Fall Plankton Survey

The Fall Plankton cruise took place from August 25 through September 30, 2009. NMFS sampled 128 stations, Mississippi sampled 5 stations, and Louisiana sampled 7 stations. The objective of this survey was to collect ichthyoplankton samples with bongo and neuston gear for the purpose of estimating abundance and defining the distribution of eggs, larvae, and small juveniles of Gulf of Mexico fishes, particularly king and Spanish mackerel, lutjanids and sciaenids.

Plankton samples were taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consisted of two conical 61-cm nets with 333-micron mesh. Tows were oblique, surface to near bottom (or 200 m) and back to surface. A mechanical flowmeter is mounted off-center in the mouth of each bongo net to record the volume of water filtered. Volume filtered ranges from approximately 20 to 600 m³ but is typically 30 to 40 m³ at the shallowest stations and 300 to 400 m³ at the deepest stations. A single or double 2x1 m pipe frame neuston net fitted with 0.947 (0.950)1 mm mesh netting is towed at the surface with the frame half-submerged for 10 minutes. Samples are taken upon arrival on station regardless of time of day. At each station either a bongo and/or neuston tow are made depending on the specific survey. Samples are routinely preserved in 5 to 10 % formalin and later transferred after 48 hours to 95 % ethanol for long term storage. During some surveys selected samples are preserved initially in 95 % ethanol and later transferred to fresh ethanol. In addition, hydrographic data (surface chlorophylls, salinity, temperature and dissolved oxygen from surface, midwater and near bottom, and Forel-ule color) were collected at all stations.

Right bongo and neuston samples collected from SEAMAP stations will be transhipped to the Polish Sorting and Identification Center. Left bongo samples will be archived at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC).

Plankton and Environmental Data Surveys

As in previous years, plankton samples and environmental data were collected routinely during most SEAMAP trawling surveys. During the Summer Shrimp/Groundfish Survey, plankton tows were piggybacked on the NMFS and state vessels, sampling randomly generated trawl stations within the standard 30-minute SEAMAP grids.

Objectives of these piggybacked surveys were: 1) to collect plankton samples throughout the survey area; and 2) to collect associated hydrographic and environmental data at each plankton station. Additionally, environmental data (salinity, temperature, and oxygen from surface, mid-depth and bottom waters) were collected during the shrimp/groundfish surveys. Wind direction, wind speed and wave height were taken at all trawl stations.

Samples from the right side of the bongo nets and neuston samples were shipped to the NMFS-Pascagoula Laboratory for shipment to the Polish Sorting and Identification Center, where they will be sorted to the family level (both ichthyoplankton and selected crustacean and molluscan species). The left bongo sample from each station is retained as a back up in the event of damage or loss of the specimens and maintained at the SIPAC. Preservation of plankton samples was in buffered formalin prior to transfer to ethanol.

INFORMATION SERVICES

Information from the SEAMAP activities is provided to user groups through the program administration and three complementary systems: the SEAMAP Information System, SEAMAP Archiving Center and SIPAC. Products resulting from SEAMAP activities can be grouped into two major categories: data sets (including broadly, digital data and collected specimens) managed by the SEAMAP Information System, SEAMAP Archiving Center and SIPAC; and program information. Program information is discussed in the *PROGRAM MANAGEMENT* Section of this report.

SEAMAP Information System

Biological and environmental data from all SEAMAP-Gulf surveys are included in the SEAMAP Information System, managed in conjunction with NMFS-SEFSC. Raw data are edited by the collecting agency and verified by the SEAMAP Data Manager prior to entry into the system. Data from all SEAMAP-Gulf surveys during 1982-2008 have been entered into the system and data from 2009 surveys are in the process of being verified, edited, and entered for storage and retrieval. Verified, non-confidential SEAMAP data are available conditionally to all requesters, although the highest priority is assigned to SEAMAP participants.

Requested SEAMAP data were used for a multitude of purposes in 2009:

- Evaluating the abundance and size distribution of penaeid shrimp in federal and state waters to assist in determining opening and closing dates for commercial fisheries;
- Evaluating and plotting the size of the hypoxic (Dead Zone) area off of Louisiana;

- Assessing shrimp and groundfish abundance and distribution and their relationship to such environmental parameters as temperature, salinity, and dissolved oxygen;
- Identifying environmental parameters associated with concentrations of larval finfish;
- Assessing the potential impact of liquefied natural gas facilities on marine fish stocks;
- Compiling the 2009 SEAMAP Environmental and Biological Atlas; and
- Comparing catches of shrimp and groundfish captured by 40-ft versus 20-ft trawl nets.

Real-time Data

A major function of the SEAMAP Information System is the processing of catch data from the Summer Shrimp/Groundfish Survey as near-real-time data. Data were transmitted to the NMFS Mississippi Laboratories from the NOAA vessel, while the states' data were entered into the system weekly. Plots of station locations and catch rates of shrimp, squid and dominant finfish species were prepared, edited, and processed by GSMFC for weekly distribution to management agencies, fishermen, processors and researchers. SEAMAP real-time data plots were produced during the 2009 Summer Shrimp/Groundfish Survey. Seven weekly mailings were produced and distributed to approximately 200 interested individuals. These plots were also available through the SEAMAP web page. Management agencies also received comprehensive data listings showing penaeid shrimp length frequencies, sampling parameters and environmental conditions.

SEAMAP Archiving Center

Larval fish and fish eggs are sorted to the lowest taxa level possible at the Polish Sorting and Identification Center of the Sea Fisheries Institute in Szczecin and Gdynia. The specimens are then returned to the SEAMAP Archiving Center (SAC) for archiving and loan to researchers. Over the last year, 29,700 lots of specimens were returned from the Polish Sorting and Identification Center and thirty-eight thousand five hundred and eleven (38,511) new lots have been added to the SEAMAP Access database. The specimens cataloged this year represent 18 orders, 126 families, 235 genera and 245 species.

The SEAMAP Archiving Center is managed in conjunction with Florida Fish and Wildlife Conservation Commission's (FWC) Fish and Wildlife Research Institute (FWRI) in St. Petersburg, Florida. The SAC processes specimen loans, requests for associated plankton data, and requests for data clarification. Seventy requests have been accommodated this year to twenty-seven different researchers at both the state and federal level.

SEAMAP Invertebrate Plankton Archiving Center

The SEAMAP Invertebrate Plankton Archiving Center (SIPAC) is in its twenty-fifth year of operation. Sara LeCroy at the USM/GCRL Museum currently serves as the SIPAC curator. The overall mission of the SIPAC is to archive and manage the large collection of plankton samples acquired during SEAMAP cruises and to obtain specimens and/or data on selected invertebrate larval stages from those samples.

On August 29, 2005, Hurricane Katrina struck the Mississippi Gulf coast, severely damaging the building at the Gulf Coast Research Laboratory in which the SIPAC samples were housed. The room containing these samples was breached by the storm surge and many samples were washed out into the surrounding area. Although some samples were destroyed, many were not, and as a result of post-Katrina recovery efforts, 4896 of the 9010 archived samples (54%) have been reclaimed and are in the process of being re-archived. An additional 4000 (estimated) small vials containing partially or completely identified invertebrate plankton material have also been recovered. The recovered samples are currently housed within the GCRL Museum's Research Building Collection Room. At this time, the room that previously housed the samples has been completely cleared of debris and there are no remaining samples to be recovered in that area. The actual number of recovered samples mentioned above has changed slightly from previously estimated numbers because some of the salvaged material (46 samples) ultimately proved to be damaged beyond recovery when it was examined more closely.

In an effort to keep the space required to house the SIPAC collection of unsorted plankton samples to a minimum, samples that have been in the collection for over 10 years and duplicate samples sorted and received from the Polish Sorting and Identification Center, are aliquoted to $\frac{1}{4}$ their original volume and placed into 100 ml vials, as necessary. When possible, the remaining $\frac{3}{4}$ aliquots are donated to educational institutions for use as teaching materials. If the remaining sample must be discarded, sample jars are cleaned and returned to NMFS-Pascagoula for reuse. To date, approximately 2,264 samples collected from 1982-1988 have been aliquoted and prepared for long-term storage; of these, at least 900 (40%) were recovered post-Katrina. Because there is very little free space in the area currently being used to store the samples, part of the post-Katrina recovery process will include further aliquoting of older samples to reduce the space required for storage. We expect to begin this aliquoting in the coming year.

In October of 2008, the SIPAC curator received a request from the Southeast Fisheries Science Center Beaufort Laboratory to house plankton material from the NGOMEX plankton surveys conducted in the northern Gulf of Mexico in the 1980s. Because of the value of the collection and its relevance to the SIPAC holdings, the curator agreed and the collection, consisting of 218 boxes of pint and quart jars of material and associated data, was transferred to the Ocean Springs facility in November. The samples were examined and 21 boxes of samples containing only dehydrated, unsalvageable material were recorded and discarded. The remaining 197 boxes, some containing dehydrated samples mixed with good samples, have been temporarily stored on shelves in the invertebrate prep room and visitor's office space. These samples will be aliquoted and recorded and the remaining dehydrated samples will be discarded, as time permits. The useable samples will then be incorporated into the SIPAC collection.

During the next year, the SIPAC will continue to manage SEAMAP invertebrate plankton collections, accession samples and provide available samples, data and specimens from the collection to qualified researchers as requested. A high priority will continue to be placed on the rehabilitation, reorganization and documentation of the post-Katrina collection. In addition, SIPAC personnel will be participating in a multi-institutional project funded through the Northern Gulf Institute and entitled "Identifying linkages between zooplankton dynamics, fishery resources and climate change in the northern Gulf of Mexico." Part of this project entails the use of SIPAC samples to develop scanning protocols for the analysis and digital archiving of zooplankton samples (LSU) and the identification of the larvae of commercially important decapod crustacean taxa from selected SEAMAP cruises (GCRL/SIPAC). This information, as well as data obtained from archived partially identified decapod material in the SIPAC collection, will be added to the NOAA/NMFS SEAMAP plankton database maintained by the NMFS Pascagoula Laboratory. In addition, during the course of the project, plankton samples previously sorted for fish larvae and archived at the Sea Fisheries Institute in Gdynia, Poland, will be returned to the U.S. and used to fill gaps in the SIPAC holdings caused by losses sustained as a result of Hurricane Katrina.

PROGRAM MANAGEMENT

The SEAMAP program is administered by the SEAMAP Subcommittee of the TCC through the SEAMAP Coordinator, who is under the technical direction of the Subcommittee Chairman and administrative supervision of the GSMFC Executive Director.

Personnel associated with SEAMAP program management include the Coordinator, Data Manager, SEAMAP Archiving Center Curator, SIPAC Curator and the Program Monitor from NMFS-Pascagoula Laboratory.

Planning

Major SEAMAP-Gulf Subcommittee meetings were held in October 2008 and March 2009 in conjunction with the Annual Meeting of the GSMFC. All meetings included participation by various work group leaders, the Coordinator, the Program Monitor, and other GSMFC staff. Representatives from the Gulf program also met with the South Atlantic and Caribbean representatives in August 2009 to discuss respective program needs and priorities for FY2010.

Coordination of program surveys and distribution of quick-report summaries of a Gulf-wide survey to management agencies and industry were major functions of SEAMAP management in 2009. Other important management activities included coordinating data provision and specimen loans, preparing publications and documents and assisting in the preparation of State/Federal cooperative agreements, including amendments to permit extension of activities previously not detailed in the agreements.

Information Dissemination

The following documents were published and distributed during this reporting period:

- *2009 SEAMAP Marine Directory*. Inventories of marine agency contacts (State, Federal and university) concerned with fishery research in the Gulf of Mexico, and summaries of information provided by these organizations: target species, types of fishery-independent sampling gear and platforms, annual sampling effort, and other materials.
- *SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee - October 1, 2007 to September 30, 2008*. A detailed summary of program accomplishments, emphasizing survey design, material collected, data dissemination, budget information, and future survey activities.
- *Annual Report of the SEAMAP Program - October 1, 2007 to September 30, 2008*. A summary of FY2008 activities and proposed FY2009 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.

Proposed 2010 Activities

Preliminary 2010 SEAMAP-Gulf budget allocations are shown in Table 3. Last year, total program allocations for all three SEAMAP components, Gulf, South Atlantic and Caribbean, was approximately \$5.09 million. At the August meeting, the SEAMAP components based their allocations for 2010 on level funding. At this level, the share to be allocated for SEAMAP-Gulf activities (including GSMFC) will be \$2,068,331. Proposed FY2010 activities for all Gulf participants are shown in Table 4.

FY2009 Financial Report

Total allocations for FY2009 program administration were \$259,474. The GSMFC has arranged and paid for all expenses associated with personnel, meetings, travel, and operating expenses to date. The remaining balance will be used to provide administration of the SEAMAP-Gulf program through December 31, 2009.

TABLE 1.

SEAMAP REPRESENTATIVES FOR FY2009

James Hanifen, Chairman
Louisiana Department of Wildlife and Fisheries

John Mareska
Alabama Department of Conservation and Natural Resources

Read Hendon
University of Southern Mississippi
Gulf Coast Research Laboratory

Bob McMichael
Florida Fish and Wildlife Conservation Commission
Florida Fish and Wildlife Research Institute

Fernando Martinez-Andrade
Texas Parks and Wildlife Department

Butch Pellegrin
National Marine Fisheries Service
Pascagoula Laboratory

Richard Leard (non-voting)
Gulf of Mexico Fishery Management Council

TABLE 2.

SEAMAP WORK GROUP MEMBERS FOR FY2009

ADULT FINFISH WORK GROUP

Terry Henwood
National Marine Fisheries Service
Pascagoula Laboratory

Leslie Williams
Texas Parks and Wildlife Department

Bob McMichael
Florida Fish and Wildlife Conservation
Commission

Suzanne Delaune
Louisiana Department of Wildlife and
Fisheries

Robert Shipp
University of South Alabama

Rick Leard
Gulf of Mexico Fishery Management
Council

Eric Hoffmayer
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

DATA COORDINATING WORK GROUP

Lloyd Kirk, Leader
SEAMAP Data Manager
Gulf States Marine Fisheries Commission

Butch Pellegrin
National Marine Fisheries Service
Pascagoula Laboratory
Shrimp/Groundfish Work Group

Terry Henwood
National Marine Fisheries Service
Pascagoula Laboratory
Adult Finfish Work Group

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory
Plankton Work Group

Mike Murphy
Florida Fish and Wildlife Conservation Commission
Red Drum Work Group

Read Hendon
University of Southern Mississippi/Gulf Coast
Research Laboratory
Reef Fish Work Group

LA Department of Wildlife and Fisheries
Environmental Data Work Group

ENVIRONMENTAL DATA WORK GROUP

Louisiana Department of Wildlife and Fisheries

Kim Williams
Florida Fish and Wildlife Conservation Commission

John Mareska
Alabama Department of Conservation and Natural Resources

Bruce Comyns
Gulf Coast Research Laboratory
University of Southern Mississippi

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Bill Balboa
Texas Parks and Wildlife Department

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

PLANKTON WORK GROUP

Joanne Lyczkowski-Shultz, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Julia Lightner
Louisiana Department of Wildlife and Fisheries

John Mareska
Alabama Department of Conservation and Natural Resources

Kim Williams
Florida Fish and Wildlife Conservation Commission

Sara LeCroy, Curator
SEAMAP Invertebrate Plankton Archiving Center
University of Southern Mississippi/Gulf Coast Research Laboratory

Harriet Perry
University of Southern Mississippi
Gulf Coast Research Laboratory

Mark Benefield
Louisiana State University

RED DRUM WORK GROUP

Mike Murphy, Leader

Florida Fish and Wildlife Conservation Commission

Bruce Comyns
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Gulf Coast Research Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Jeff Marx
Louisiana Department of Wildlife and
Fisheries

Alabama Department of Conservation and
Natural Resources

Mark Fisher
Texas Parks and Wildlife Department

REEF FISH WORK GROUP

Richard Waller, Leader

University of Southern Mississippi
Gulf Coast Research Laboratory

Perry Trial
Texas Parks and Wildlife Department

Bob McMichael
Florida Fish and Wildlife
Conservation Commission

Chris Gledhill
National Marine Fisheries Service
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John Mareska
Alabama Department of Conservation and
Natural Resources

Doug Peter
Louisiana Department of Wildlife and
Fisheries

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
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Nate Sanders
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Bob McMichael
Florida Fish and Wildlife Conservation
Commission

LONGLINING WORK GROUP

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Eric Hoffmayer
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Gulf Coast Research Laboratory

Mark Grace
National Marine Fisheries Service
Pascagoula Laboratory

Todd Neahr
Texas Parks and Wildlife Department

Clint Edds
Louisiana Department of Wildlife and
Fisheries

Bob McMichael
Florida Fish and Wildlife Conservation
Commission

TABLE 3.
PRELIMINARY 2010 PROGRAMMATIC BUDGET

	FY2009 Funding
GSMFC	\$259,474
Alabama	\$195,000
Florida	\$530,000
Louisiana	\$447,420
Mississippi	\$469,681
Texas	\$166,756
Total	\$2,068,331

TABLE 4.
PROPOSED SEAMAP-GULF ACTIVITIES, 2010

	Fall	Winter	Spring	Summer
Resource Surveys:				
Winter Plankton Survey		X		
Spring Plankton Survey			X	
Shrimp/Groundfish Surveys	X	X		X
Fall Plankton Survey	X			
Plankton & Environmental Data Surveys	X	X	X	X
Inshore Longline Surveys	X		X	X
Florida Trawl Survey				X
Louisiana Inshore Survey	X	X	X	X
Information Operations:				
Biological and Environmental Atlas				X
Marine Directory			X	
Joint Annual Report		X		
Data Input and Request Processing	X	X	X	X
Specimen Archiving and Loan	X	X	X	X
Real-time Data Summaries				X
Program Administration:	X	X	X	X



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