

ANNUAL REPORT

TO THE

TECHNICAL COORDINATING COMMITTEE

GULF STATES MARINE FISHERIES COMMISSION

OCTOBER 1, 2003 TO SEPTEMBER 30, 2004

SEAMAP Subcommittee

James G. Hanifen, Chairman

Jeffrey K. Rester

SEAMAP Coordinator

October 4, 2004

GSMFC No: 125

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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 1985-2004 (October 1 through September 30). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY2004 were handled through State/Federal cooperative agreements, administered by SERO and the Southeast Fisheries Science Center (SEFSC), National Marine Fisheries Service (NMFS).

In FY2004, SEAMAP operations continued for the twenty-third consecutive year. SEAMAP resource surveys included the Fall Plankton Survey, Fall Shrimp/Groundfish Survey, Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Reefish Survey, and plankton and environmental data surveys. Other FY2004 activities included SEAMAP information services and program management.

This report is the twenty-first 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 FY2004 and proposed SEAMAP activities for FY2005.

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

FY2004 SEAMAP RESOURCE SURVEYS

Resource survey information continued for the twenty-third consecutive year. The surveys conducted during the year address distinct regional needs and priorities and provide information concerning the marine resources in the Gulf of Mexico.

Fall Plankton Survey

The first fall ichthyoplankton survey to assess abundance and distribution of king mackerel eggs and larvae occurred in August 1984. No sampling survey was conducted in 1985; however, expanded surveys in 1986-2002 covered Gulf waters from Florida Bay to Brownsville, Texas. The Fall Plankton cruise took place from August 28, 2003 through September 29, 2003. NMFS and

Louisiana sampled 150 stations on the west Florida shelf and northern Gulf of Mexico. The objective of this survey is 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. Wire angle was maintained at 45 degrees. Neuston samples were taken with .947-micron mesh nets on 1 x 2-meter frames towed at the surface for ten minutes. Right bongo and neuston samples were initially preserved in 10% buffered formalin and after 48 hours were transferred to 95% ethyl alcohol for final preservation. Left bongo samples were preserved via an ethanol/ethanol transfer to aid in preservation of larval otoliths. 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 transshipped to the Polish Sorting and Identification Center. Left bongo samples will be archived at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC).

Fall Shrimp/Groundfish Survey

The Fall Shrimp/Groundfish Survey was conducted from October 8 - December 19, 2003, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm, covering 407 trawl stations, in addition to plankton and environmental sampling.

Sampling design was similar to the Summer Shrimp/Groundfish Survey. 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, Mississippi, Alabama, and Louisiana vessels collected ichthyoplankton data at sample sites occurring nearest to half-degree intervals of latitude/longitude. A total of 61 stations was sampled with bongo and/or neuston nets, as encountered along cruise tracks. NMFS completed 54 ichthyoplankton stations and Louisiana completed 7 stations. The Polish Sorting and Identification

Center will sort the samples. Once sorted, the specimens and data will be archived at the SEAMAP Archiving Center.

Spring Plankton Survey

The SEAMAP Spring Plankton Survey took place from May 4 through May 31, 2004. One hundred three stations were sampled from the west Florida shelf to the Louisiana/Texas border. NMFS completed 98 ichthyoplankton stations and Mississippi completed 5 stations. This was the twenty-third 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. Wire angle was maintained at 45 degrees. Neuston samples were taken with .947-micron mesh nets on 1 x 2-meter frames towed at the surface for ten minutes. Right bongo and neuston samples were initially preserved in 10% buffered formalin and after 48 hours were transferred to 95% ethyl alcohol for final preservation. Left bongo samples were preserved via an ethanol/ethanol transfer to aid in preservation of larval otoliths. 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).

Reeffish Survey

The primary purpose of this survey is 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 are 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 are baited with squid before deployment. The resultant video recordings (typically of one hour duration) are processed back at the laboratory where fishes are identified and counted independently by two tape readers. Final counts are entered into the SEAMAP reef fish database along with additional observations on habitat and fish activity. NMFS conducted reeffish sampling from April 2 through June 23, 2004. Video cameras were deployed at 202 sites and the chevron trap at 12 sites. Alabama conducted sampling on October 7 through October 24, 2004, sampling seven sites with trap videos.

Summer Shrimp/Groundfish Survey

During the spring of 2004, there was communication between the Shrimp/Groundfish Work Group members to examine the design for the Summer Shrimp/Groundfish Survey and determine the random station locations for each participant.

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.

The overall sampling strategy during the 2004 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. This was the twenty-third year for the survey. The entire survey occurred from June 2 through July 16, 2004 and 381 trawl stations were sampled during the survey. In addition, NMFS, Mississippi, and Louisiana vessels collected ichthyoplankton data. A total of 56 stations was sampled with bongo and/or neuston nets, as encountered along cruise tracks.

During the survey, the NOAA Ship OREGON II and R/V TOMMY MUNRO sampled offshore and inshore Gulf waters with 40-ft trawls. Alabama's R/V VERRILL sampled offshore Alabama waters with 40-ft trawls, the R/V PELICAN sampled both Louisiana state waters and offshore waters with 40-ft trawls, and Texas vessels sampled Texas state waters and offshore waters with 20-ft trawls. All vessels took environmental data, including temperature, salinity, oxygen, and chlorophyll at each station.

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, and chlorophyll from surface 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.

Chlorophyll samples were filtered at each station using GF/C filters. All filters were put in petri disks and wrapped in foil for onboard storage in the freezer. Chlorophyll analysis will be completed ashore. 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 1982-2003 have been entered into the system and data from 2004 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. A total of 286 SEAMAP data requests have been received. In most instances, requests were filled promptly. To date, 283 requests have been completed. During this reporting period, 21 requests were received.

Requested SEAMAP data were used for a multitude of purposes in 2004:

- 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;
- Compiling the 2004 SEAMAP Environmental and Biological Atlas; and

- Comparing catches of shrimp and groundfish captured by 40-ft versus 20-ft trawl nets.

Data Management

The requirements report for an integrated data system, *Data Management System Design Study for Gulf and South Atlantic, 1987*, was completed in March 1987. The document identifies the high-level design specifications and recommended implementation plan for a module-based SEAMAP Data Management System (DMS). The design is based on information contained in the SEAMAP Gulf and South Atlantic DMS Requirements Document developed through a cooperative effort between NMFS and other SEAMAP participants. The document has five sections: 1) background and brief descriptions of current centralized and proposed distributed systems; 2) summary of the Requirements Survey; 3) overview of the system's architecture; 4) description of developmental modules constituting the DMS design; and 5) a modular implementation plan which includes costs and schedule.

Work was completed during FY1990 on the new distributed SEAMAP DMS. New modules completed include those for data entry, edit, upload, data query and download. All of the Gulf States are now equipped with the necessary computer hardware and software.

The system is decentralized, i.e., distributed. Thus, the SEAMAP users are able to locally, and directly, enter and retrieve data. Software for the system has been distributed to participants for trial runs of data input.

This system decreases the time necessary to enter and retrieve data and provides powerful and flexible local data analysis and display capabilities. Under the system, each SEAMAP site enters, verifies and edits their data, eliminating the mail-oriented loop necessary to enter/edit/verify data. Secondly, each site has the capability of locally accessing SEAMAP data, utilizing a user-friendly system. Local data retrieval allows the data to be accessed in a timely manner with a minimum amount of effort and programming skills.

Under the system, outside users (e.g., Minerals Management Service, U.S. Army Corps of Engineers, etc.) may request special data sets for research or study. The outside users submit the request to the SEAMAP Subcommittee through the SEAMAP-Gulf Coordinator for approval to proceed. Once the request is approved, the Data Manager and staff members provide the information through a priority-based, mail-oriented system. Also, SEAMAP participants may use the Special Request mechanism for data sets too large for economical downloading by telephone. A Central Operations staff will handle these requests in the same priority-based, mail-oriented manner as noted above.

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 three times weekly via cellular phone 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 and edited at the NMFS Mississippi Laboratories,

and processed by GSMFC for weekly distribution to management agencies, fishermen, processors and researchers. SEAMAP real-time data plots were produced during the 2004 Summer Shrimp/Groundfish Survey. Seven weekly mailings were produced and distributed to approximately 220 interested individuals. These plots were also available through the SEAMAP home 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 egg samples sorted to the lowest taxa level possible by the Polish Sorting and Identification Center are returned to the SEAMAP Archiving Center for archiving and loan to researchers. To date in 2004, 5,247 samples were returned from the Polish Sorting and Identification Center. Data entry for sorted samples has been completed in the new SEAMAP Access data entry system. The 32,350 samples cataloged this year represent 18 orders, 126 families, 235 genera and 245 species.

The SEAMAP Archiving Center, which is managed in conjunction with Florida Fish and Wildlife Conservation Commission (FWC) in St. Petersburg, Florida, processes specimen loans, requests for associated plankton survey data, and requests for data clarification. Forty-four requests have been accommodated this year to fifteen different researchers at both the state and federal level.

SEAMAP Invertebrate Plankton Archiving Center

The SIPAC is in its twentieth year of operation. Sara LeCroy at the USM/COST/GCRL currently serves as the SIPAC curator. The overall mission of the SIPAC, 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, continued during the year, but at a reduced level of activity. The SIPAC continues to provide unsorted plankton samples and data or specimens of larval invertebrates to qualified researchers upon request.

The student assistant employed during the past year currently aids the curator with the cataloging of new samples, and the maintenance and curation of the collection. Activities during the year were limited to the maintenance and curation of the existing collection, as well as the cataloging of 287 additional bongo net samples (33 from year 2000 plankton cruises; 3 from year 2002 plankton cruises; 206 from year 2003 plankton cruises; 45 from year 2004 plankton cruises). In addition, 16 neuston samples were received and cataloged (all from year 2000 plankton cruises). The number of samples currently catalogued in the SIPAC collections is 8,889, with 326 samples currently on loan.

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 ¼ their original volume and placed into 100 ml vials, as necessary. When possible, the remaining ¾ 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. Due in part to the removal of approximately 180 samples to the NMFS, Pascagoula, in 2002, there is presently sufficient space available for additional samples to be deposited into the SIPAC archives without continuing the aliquoting of 1988-1994 SEAMAP samples.

During the next year, the SIPAC will continue to manage SEAMAP plankton collections, accession samples, and provide unsorted samples, sorted specimens and data from the collection to qualified researchers as requested. Efforts with sorted materials will concentrate on curation and analysis of current holdings and publication of distribution patterns of selected taxa by cruise.

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 NMFS-Pascagoula Laboratory Director, serving as Program Monitor.

Planning

Major SEAMAP-Gulf Subcommittee meetings were held in October 2003 and March 2004 in conjunction with the Annual Meeting of the GSMFC. All meetings included participation by various work group leaders, Coordinator, Data Manager, Program Monitor and other GSMFC staff. Representatives from the Gulf program also met with the South Atlantic and Caribbean representatives in August 2004 to discuss respective program needs and priorities for FY2005.

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 2004. 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:

- *2004 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, 2003 to September 30, 2004*. 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, 2003 to September 30, 2004.* A summary of FY2004 activities and proposed FY2005 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.

Proposed 2005 Activities

Preliminary 2005 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 \$1.75 million. At the August meeting, the SEAMAP components based their allocations on level funding for 2005. At this level, the share to be allocated for SEAMAP-Gulf activities (including GSMFC) will be \$705,737.

Proposed 2005 activities for all Gulf participants are shown in Table 4. The approved 2005 Operations Plan for SEAMAP-Gulf is contained in Appendix B.

FY2004 Financial Report

Total allocations for FY2004 program administration were \$117,313. 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, 2004.

TABLE 1.

SEAMAP REPRESENTATIVES FOR FY2004

James Hanifen, Chairman
Louisiana Department of Wildlife and Fisheries

Richard Waller, Vice Chairman
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Stevens Heath
Alabama Department of Conservation and Natural Resources

Mark Leiby
Florida Fish and Wildlife Conservation Commission
Florida Fish and Wildlife Research Institute

Paul Choucair
Texas Parks and Wildlife Department

Terry Henwood
National Marine Fisheries Service
Pascagoula Laboratory

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

TABLE 2.

SEAMAP WORK GROUP MEMBERS FOR FY2004

ADULT FINFISH WORK GROUP

Terry Henwood, Leader

National Marine Fisheries Service

Pascagoula Laboratory

Texas Parks and Wildlife Department	Rick Leard Gulf of Mexico Fishery Management Council
Mark Leiby Florida Fish and Wildlife Conservation Commission	James Warren University of Southern Mississippi College of Marine Sciences Gulf Coast Research Laboratory
John Roussel Louisiana Department of Wildlife and Fisheries	Joanne Lyczkowski-Shultz National Marine Fisheries Service Pascagoula Laboratory
Robert Shipp University of South Alabama	

DATA COORDINATING WORK GROUP

Mark McDuff, Leader

SEAMAP Data Manager

National Marine Fisheries Service

Pascagoula Laboratory

Butch Pellegrin National Marine Fisheries Service Pascagoula Laboratory Shrimp/Groundfish Work Group	Mike Murphy Florida Fish and Wildlife Conservation Commission Red Drum Work Group
Terry Henwood National Marine Fisheries Service Pascagoula Laboratory Adult Finfish Work Group	Richard Waller University of Southern Mississippi/College of Marine Sciences/Gulf Coast Research Laboratory Reef Fish Work Group
Joanne Lyczkowski-Shultz National Marine Fisheries Service Pascagoula Laboratory Plankton Work Group	Terry Romaine LA Department of Wildlife and Fisheries Environmental Data Work Group

ENVIRONMENTAL DATA WORK GROUP

Terry Romaire, Leader
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose
Alabama Department of Conservation and
Natural Resources

Kim Williams
Florida Fish and Wildlife Conservation
Commission

Rob Ford
National Marine Fisheries Service
Pascagoula Laboratory

Richard Waller
Gulf Coast Research Laboratory
University of Southern Mississippi
College of Marine Sciences

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

PLANKTON WORK GROUP

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

Alonzo Hamilton
National Marine Fisheries Service
Pascagoula Laboratory

Leslie Hartman
Alabama Department of Conservation and
Natural Resources

Ken Edds
Louisiana Department of Wildlife and
Fisheries

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

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

Mark Benefield
Louisiana State University

Harriet Perry
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

RED DRUM WORK GROUP

Mike Murphy, Leader

Florida Fish and Wildlife Conservation Commission

James Warren
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Joseph Shepard
Louisiana Department of Wildlife and
Fisheries

Mark Van Hoose
Alabama Department of Conservation and
Natural Resources

Texas Parks and Wildlife Department

REEF FISH WORK GROUP

Richard Waller, Leader

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

Texas Parks and Wildlife Department

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Jim Duffy
Alabama Department of Conservation and
Natural Resources

Richard Kasprzak
Louisiana Department of Wildlife and
Fisheries

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Texas Parks and Wildlife Department

Ken Edds
Louisiana Department of Wildlife and
Fisheries

Bruce Comyns
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Leslie Hartman
Alabama Department of Conservation and
Natural Resources

Nate Sanders
National Marine Fisheries Service
Pascagoula Laboratory

TABLE 3.
PRELIMINARY 2005 PROGRAMMATIC BUDGET

Alabama Department of Conservation and Natural Resources	83,995
Florida Fish and Wildlife Conservation Commission	152,635
Louisiana Department of Wildlife and Fisheries	154,327
University of Southern Mississippi/College of Marine Sciences/ Gulf Coast Research Laboratory	124,120
Texas Parks and Wildlife Department	73,347
Gulf States Marine Fisheries Commission	117,313
TOTAL	\$705,737

TABLE 4.
PROPOSED SEAMAP-GULF ACTIVITIES, 2005

	Fall	Winter	Spring	Summer
Resource Surveys:				
Spring Plankton Survey			X	
Shrimp/Groundfish Surveys	X			X
Fall Plankton Survey	X			
Plankton & Environmental Data Surveys	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		X
Program Administration:	X	X	X	X

APPENDIX A

OCTOBER 2003 - AUGUST 2004

SEAMAP MINUTES

**TCC SEAMAP SUBCOMMITTEE
MINUTES - 54th Annual Meeting
Tuesday, October 14, 2003
Corpus Christi, Texas**

APPROVED BY:

COMMITTEE CHAIRMAN

Chairman Jim Hanifen called the meeting to order at 8:30 a.m. The following members and others were present:

Members

Jim Hanifen, Chair, LDWF, Baton Rouge, LA
Richard Waller, USM/CMS/GCRL, Ocean Springs, MS
Paul Choucair, TPWD, Rockport, TX
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Rick Leard, GMFMC, Tampa, FL
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Terry Henwood, NMFS, Pascagoula, MS

Others

Buck Sutter, NOAA Fisheries, St. Petersburg, FL
Robert Adami, TPWD, Corpus Christi, TX
Domingo Sanches, TPWD, Rockport, TX
Terry Cody, Rockport, TX
Kevin Madley, FWC/FMRI, St. Petersburg, FL

Staff

Larry Simpson, Executive Director, GSMFC, Ocean Springs, MS
Dave Donaldson, Data Program Manager, GSMFC, Ocean Springs, MS
Jeff Rester, SEAMAP/Habitat Program Coordinator, GSMFC, Ocean Springs, MS
Cheryl Noble, Staff Assistant, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as submitted.

Approval of Minutes

M. Leiby moved to approve the August 6, 2003 minutes as submitted. P. Choucair seconded the motion and the minutes were approved.

Administrative Report

J. Rester reported the Fall Plankton Survey took place from August 19 through October 1, 2003. A total of 153 stations were completed by Alabama, NMFS, and Louisiana. Mississippi will be conducting winter plankton sampling this year starting in late November or early December because

they did not participate in the Fall Plankton Survey. **R. Waller** stated they had problems with the vessel and could not get out in that time frame.

J. Rester contacted the Data Coordinating Work Group and asked for their input on what an end of survey summary report for the Fall Shrimp/Groundfish Cruise should include. This report will replace the red snapper real time summary plots that SEAMAP has done in the past. He said only two people responded and one felt the total catch and top three species by weight or number should be displayed along with environmental information, and the other suggested to show as much information as possible only limiting the list if time constraints in analyzing and verifying the data would be a problem. The survey design and locations will also be in the report. The Subcommittee asked J. Rester to email them information on previous surveys of the top five species and they will then contact him with what information should be in the report.

J. Rester said M. McDuff has been contacted by most of the members with their GIS contact. He asked the Subcommittee if they have not contacted M. McDuff yet to please do so. **J. Rester** said he has not received the 2001 atlas information yet but hopes to have the draft to the Subcommittee before the end of the year.

SEAMAP Funding for FY2004

J. Rester asked S. Heath how much of the \$20,000 he will need to purchase the electronic measuring boards. **S. Heath** said they are in the process of submitting the paperwork and they will need \$15,000 to make the necessary purchases. **P. Choucair** said they could use the other \$5,000 to purchase a tablet PC. He said the environmentally sealed PC (military version) will cost \$5,000 but the other version that is non-environmentally sealed ranges from \$1,500-\$2,000 but Texas has put a freeze on computer purchases. **M. Leiby moved to have the Commission purchase the necessary computer hardware and software for Texas and if any funds are left, the Commission will receive that to be used for a GIS meeting.** **P. Choucair** suggested waiting until the end of the meeting to decide this motion because the funds may have to be used for something else. **J. Rester** stated a decision has to be made today because the cooperative agreements must be modified.

J. Rester reported that the Senate budget increased SEAMAP by \$350,000 but a final decision will not be made until it goes before the Committee. He said the Subcommittee needs to decide how to use the extra funding if it is received. The Subcommittee needs to have a plan to take to the South Atlantic and Caribbean components to justify the portion the Gulf asks for. **J. Rester** said with the current SEAMAP funding, the Gulf receives 46%. Each member informed the Subcommittee of their needs and what they would do with an increase. The Subcommittee also discussed priorities of the SEAMAP-Gulf. **J. Hanifen** suggested each member take this to their agency for their input, do a needs assessment, and also decide what the customers would like to see. He asked J. Rester to contact J. Carmichael and ask what information they will need for stock assessments. J. Rester will set up a conference call in four weeks and the Subcommittee will make a final decision on how extra funding will be used and how to present it to the other two components.

Coordinated Fishery Independent Data Collection Update

D. Donaldson reported the South Atlantic Board has approved the revised goals and objectives and the concept of expansion of SEAMAP so they will now be moving forward. A conference call of the SEAMAP Chairmen, Coordinators and NMFS representative is scheduled for October 28th to discuss the next steps in the process. The group will then meet early next year. D. Donaldson will keep all involved apprized of developments.

ArcIMS and SEAMAP Database Development

J. Rester asked the Subcommittee for suggestions for the new atlas format. He and P. Choucair have discussed several options using visual presentations. The Subcommittee agreed to change the format of the atlas by making it more graphical and not having the data tables. Future atlases will be distributed on CD-ROM and will consist of an Executive Summary, various GIS maps of the data, the raw data, and all SEAMAP reports for that year. J. Rester will also contact M. McDuff to discuss if any changes have to be made in how NMFS provides the data to develop the new format. J. Rester and P. Choucair will continue working on this and make a presentation to the Subcommittee at the next SEAMAP meeting.

J. Rester reported he attended a meeting in September with Peter Hoar from the National Coastal Data Development Center (NCDDC). The NCDDC has been trying to provide a gateway or access to SEAMAP data via an ArcIMS website. He reviewed with the Subcommittee the discussions that were held at the meeting and the different options that are available. After discussion, the Subcommittee decided the NCDDC Program will be good way to expose SEAMAP data to more users. J. Rester will discuss with P. Hoar about developing canned queries for the SEAMAP data for geographies, state statistical zones, time periods, species, etc., for the user to develop a map. A statement should be on the map that if more information is needed, contact the SEAMAP data manager. Links to the SEAMAP data manager, website and members should all be available on the website.

Election of Chairman

R. Waller moved to elect **Jim Hanifen Chairman** and **Steve Heath Vice Chairman**. **M. Leiby** seconded, and the motion passed unanimously.

Other Business

J. Hanifen reminded the Subcommittee that the *Charles H. Lyles Award* Luncheon will be at 12:00 noon and there will be a reception on the U.S.S. Lexington at 5:30 p.m.

There being no further business, the meeting adjourned at 11:30 a.m.

**TCC SEAMAP SUBCOMMITTEE
MINUTES – 54th Spring Meeting
Monday, March 15, 2004
New Orleans, Louisiana**

APPROVED BY:

COMMITTEE CHAIRMAN

Chairman Jim Hanifen called the meeting to order at 8:02 a.m. The following members and others were present:

Members

Jim Hanifen, *Chairman*, LDWF, Baton Rouge, LA
Richard Waller, USM/CMS/GCRL, Ocean Springs, MS
Paul Choucair, TPWD, Rockport, TX
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Rick Leard, GMFMC, Tampa, FL
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Terry Henwood, NMFS, Pascagoula, MS

Staff

Larry Simpson, Executive Director, GSMFC, Ocean Springs, MS
Ron Lukens, Assistant Director, GSMFC, Ocean Springs, MS
Dave Donaldson, Data Program Manager, GSMFC, Ocean Springs, MS
Virginia Herring, Executive Assistant, GSMFC, Ocean Springs, MS
Jeff Rester, SEAMAP/Habitat Program Coordinator, GSMFC, Ocean Springs, MS
Cheryl Noble, Staff Assistant, GSMFC, Ocean Springs, MS

Others

Robert Adami, TPWD, Corpus Christi, TX
Ann Lange, NOAA Fisheries, Silver Spring, MD
Karen Mitchell, NOAA Fisheries, Pascagoula, MS
Mark McDuff, NOAA Fisheries, Pascagoula, MS
Terry Romaine, LDWF, Baton Rouge, LA
Michael Harden, LDWF, Baton Rouge, LA
Peter Hoar, NCDDC, Stennis Space Center, MS
Doug Vaughn, NMFS, Beaufort, NC

Adoption of Agenda

The agenda was adopted as submitted.

Approval of Minutes

S. Heath moved to approve the October 14, 2003 minutes as submitted. P. Choucair seconded the motion and it passed.

Administrative Report

J. Rester reported the Fall Groundfish Survey took place last fall. Mississippi was not able to conduct fall plankton sampling as he reported last year, but they were able to do some plankton sampling during December. R. Waller said they were able to collect at four standard SEAMAP stations and those samples have been put into the system.

J. Rester reported the Marine Directory was produced and distributed in February, as was the 2001 SEAMAP Atlas. He reminded the Subcommittee that they will be doing the real time shrimp summaries this summer and asked that they get their information in as soon as possible.

J. Rester said Cynthia Binkley would contact him on how to submit the grant amendments for the new funding allocations. He will contact the Subcommittee when he receives this information. He also reported \$10,000 was taken out of the \$350,000 for NMFS taxes. L. Simpson suggested the Subcommittee draft a letter asking NMFS to waive these taxes as it has in the past. After discussion, **S. Heath moved for J. Rester to draft a letter for J. Hanifen's signature on behalf of the Subcommittee asking NMFS to exempt SEAMAP from these taxes. R. Waller seconded the motion and it passed.**

SEAMAP Database Management Report

M. McDuff reported they installed the new SCS data entry system onto the *TOMMY MUNRO* and it should be up and running by June. He demonstrated the new system to the Subcommittee and stated that by using this system with the sensors, it automates entering the data into the system. If there was not a sensor for certain data, it could still be entered manually. He then discussed the FSCUS system and the Microsoft Access data entry system and demonstrated the features of the systems. He said he was planning to set up a training session in May for anyone who was interested in using the new system. He will contact the Subcommittee with the exact dates for the training.

SEAMAP ArcIMS Website

P. Hoar, Coastal Ecosystem Program Manager for the new NOAA Coastal Data Development Center (NCDDC) reported that some time ago he was approached by J. Rester to develop display capabilities for the SEAMAP database. He said they had a meeting at Stennis Space Center (SSC) last month and they came up with some potential ideas on how ArcIMS can be used to improve the display of SEAMAP data. He stated the NCDDC was the newest of the four NOAA data centers and it was designed primarily to improve access to data, whether that was to derive products such as mapping, or actually to provide access to raw data, as opposed to the other centers, which are

primarily archival. He said they provide access to data through gateways and Internet links, data management, and metadata services. They have developed a metadata tool that allows a user to develop metadata without having a great deal of experience. It guides the user through the process. He then started his presentation and explained they do data displays through GIS mapping analysis and data rescue. He said that with M. McDuff's help they have developed an initial gateway to the SEAMAP portion of the overall SEMAP database. He then showed examples of the metadata records they have set up. They were also developing online querying capabilities to use with the ArcIMS and he showed examples on how to use this feature. He then showed various maps that he produced using the ArcIMS by creating shapefiles from the data. He then distributed a CD-ROM that contains the agenda, list of attendees and presentations that were made at the meeting, and the presentation he just gave.

S. Heath suggested that while they are developing this system, there should be a comment line or some place to annotate any important changes or trends that happened when the data was collected. **M. McDuff** said they were still in the process of developing a manual that documents any differences on how each state and NMFS collects their data that was not exactly how it was in the SEAMAP Manual.

J. Hanifen thanked P. Hoar for his presentation. **J. Rester** asked if the Subcommittee should give P. Hoar any guidance to his ongoing development of this system. The Subcommittee stated they would address this after the Atlas presentation.

SEAMAP Atlas Discussion

J. Rester reported that he and P. Choucair met in the Commission office after the meeting at Stennis to discuss developing a new version of the atlas using the newest technology and making it more user friendly. **P. Choucair** stated that historically the SEAMAP atlas has been a compilation of that year's work. He said that after the last meeting he developed different forms of summaries for the SEAMAP data. He envisions having a CD version of the atlas with several options on what to do with the data. He then explained and demonstrated how to use the ArcExplorer software capabilities to make shapefiles to display the data that was already summarized on the CD. The user would have the option of exploring everything on the CD. He said the main thing he wants to discuss was the user capability that was available from the SEAMAP database, i.e., species abundance, frequency of occurrence, and so forth. He then demonstrated how to use the program by showing different queries, reports, and summaries that can be displayed using the program. He said they have agreed to use 10 x 10 grids so it would be a standardized system, then showed tables and maps created with catch rate data. He also said this information can be exported into other software programs such as Excel.

J. Hanifen asked him what it took to get to this point. **P. Choucair** said a user needs the standard data and metadata and has to know what to request. He said he recommends transforming the SEAMAP database into such a format where everything was leveled out. In other words, the 30-minute tows would not have the minutes fished but rather the hours fished and that would already be transformed to the stored database. **M. McDuff**

said that for the atlas, the data preparation always takes more time than the actual plotting. **J. Hanifen** said that for the last several meetings the Subcommittee has been discussing greater and quicker access to the SEAMAP data and changes have to be made to do this. He said that in P. Hoar's presentation, he showed some of the differences in the survey designs over time and thinks P. Choucairs's suggestions to address these issues sounded reasonable. **R. Lukens** said the Subcommittee needs to find a way to make the delivery side of the program data more up to date and useful from a management standpoint. There should not be so much lag time with today's technology.

P. Choucair said there were two different issues: cleaning up the data and getting it into the database, and then being able to access the data. He said accessing and knowing exactly what the user was getting was the main problem. He asked if it would be possible to have a duplicate of the SEAMAP database where all of these quirks were already addressed. He said he also noticed -9's in the database and asked if it was in ORACLE. **M. McDuff** said it was in ORACLE but the new database will not have that. **P. Choucair** said another product that needs to be a part of the atlas was a summary of how many samples and tows were in there and any differences in the survey designs.

J. Rester informed the Subcommittee about ArcExplorer which is a free software that will take GIS files and do manipulations with them but the main files have to be generated elsewhere. He said the software was free and can be distributed on CD-ROM. A readme file can be used for viewing the SEAMAP data in different ways. He then demonstrated the software to the Subcommittee. He said in ArcGIS and ArcView different breaks can be set up but when shapefiles are imported into ArcExplorer, a user has to manually set up the different breaks between the levels and the scales cannot be changed. Basic queries can also be done with ArcExplorer. He said this was a powerful program but would take some explaining. Readme files would have to be set up but this was a way to visually look at SEAMAP data.

After discussion, the Subcommittee decided to appoint a subgroup to meet and discuss these issues. The group should point the Subcommittee in a direction that makes SEAMAP relevant to today's fisheries managers. SEAMAP has good fisheries independent data and there needs to be a way to let users know it was there and can be used fairly easily. The group should further refine the questions of how to get the data, who was the customer, what is available, and what are the processes to get the data. If possible, the subgroup should meet this afternoon.

J. Rester asked the Subcommittee if he and P. Choucair should proceed with the new ideas for the 2002 atlas. After discussion, **S. Heath moved to accept all suggestions on the atlas and have J. Rester and P. Choucair proceed for the 2002 atlas. R. Waller seconded, and the motion passed.**

P. Choucair moved to develop a committee to consider a project to try to integrate the different state's data and give further direction for the data management for SEAMAP data. S. Heath seconded, and the motion passed.

Other Business

M. Leiby said that after the Subcommittee met to discuss the new funding allocations, university policy has changed and he needs to put some of that money into upgrading salaries. He would have approximately \$5,000.00 - \$10,000.00 left over that he can give to someone else. The Subcommittee agreed to wait to see what the exact amount would be before deciding how to allocate the money. It was suggested to use the money for software or travel expenses.

With no further business, the meeting adjourned at 12:05 p.m.

SEAMAP Subcommittee Meeting

MINUTES

Rincón, Puerto Rico

August 4, 2004

Call to Order

Chairman Jim Hanifen called the meeting to order at 8:30 a.m. The following members and others were present:

Members:

Jim Hanifen, *Chairman*, LDWF, Baton Rouge, LA
Richard Waller, USM/CMS/GCRL, Ocean Springs, MS
Paul Choucair, TPWD, Rockport, TX
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Rick Leard, GMFMC, Tampa, FL

Others:

Mark McDuff, NOAA Fisheries, Pascagoula, MS

Staff:

Dave Donaldson, *Data Program Manager*, GSMFC, Ocean Springs, MS
Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS
Cheryl Noble, *Staff Assistant*, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as submitted.

Approval of Minutes ((03/15/04)

M. McDuff asked to change "FISCUS" to "FSCS". S. Heath moved to approve the March 15, 2004 minutes with this change. P. Choucair seconded the motion and it passed.

Administrative Report

J. Rester reported the NMFS vessel completed the Spring Plankton Survey in May 2004. The Summer Shrimp/Groundfish Survey took place in June and July. Alabama was only able to sample three stations due to vessel problems. The real time surveys were distributed with no problems and for the first time, the complete summaries were distributed via email only. He said he has been discussing with M. McDuff possible ways to improve the surveys with new software capabilities. This will be discussed further under agenda item 10. He then referred to the handout distributed,

Defining Essential Fish Habitat: A Model-Based Approach. This is a short paper published using NMFS data to map distribution levels of fish. He said that in the future he would like to see SEAMAP do something similar to this using the trawl data. He said he has received Microsoft access training in the past months and has been trying to standardize the SEAMAP database on a 60-minute tow time and a 40-foot net. He said that in doing this, he found errors that need to be corrected. Once he gets the database standardized, the NCDDC should be able to develop an ArcIMS site for the Subcommittee to view in October

Status of the FY2005 Budget

J. Rester said they do not have a final budget but for planning purposes they should use level funding at \$1.75 for 2004 or the \$1.4 for 2003.

Activities and Budget Needs for FY2005

Below are the total breakdowns for 2004 and 2003:

	2004	2003
Florida	\$152,635	\$121,340
Alabama	\$83,995	\$68,000
Mississippi	\$124,120	\$118,349
Louisiana	\$154,327	\$135,200
Texas	\$73,347	\$58,804
GSMFC	\$117,313	\$95,564
NMFS	\$260,196	????

The Subcommittee decided to plan 2005 activities using both amounts.

J. Rester said if SEAMAP were funded at the \$1.4 million level there would be the rotating \$20,000 to consider. For 2004, Alabama used \$15,000 of that and GSMFC bought the computer for Texas with the other \$5,000. J. Hanifen asked for suggestions on how to spend the \$20,000 this coming year. J. Rester stated the natural rotation was Florida and Alabama, so in fairness, Mississippi, Louisiana and Texas should discuss how to use the money. J. Rester said that if SEAMAP were funded at \$1.75 million for 2005, Florida would not need \$20,000, according to Kim Williams. She said that for the first time ever, the archiving center is completely caught up and everything is being shipped from Poland. A third person was hired with the extra money and that has made them more efficient. So if SEAMAP is level funded at \$1.75 million, there will be an extra \$20,000 available for the Gulf, but Florida may need it back in 2006. D. Donaldson stated that if they may need it back in the future, it would be easier for them to just keep the funds. J. Rester suggested having that as the new floating \$20,000, not to be confused with the old \$20,000. J. Hanifen stated that it would be presumptuous to take the \$20,000 from Florida with no representation for them at this meeting, but J. Rester said Kim Williams stated on Mark Leiby's behalf that they would go with \$20,000 less for 2005 if SEAMAP stays at \$1.75 million. If it were not level funded, they would need that extra \$20,000 because that would drop them back to the 2003 funding level without it. D. Donaldson suggested leaving Florida at the 2004 level if the \$20,000 is not floating. P. Choucair suggested

buying a hydro lab as a one-time purchase and he explained in detail what the hydro lab is and how it works. He said he has already volunteered to test the unit and it will cost around \$3,000 to purchase a unit. S. Heath suggested putting the \$20,000 in the GSMFC budget with a contingency to purchase equipment or to use for meetings. D. Donaldson said it would be easier to give an individual state the money because this will be the end of a three-year contract. It can go into GSMFC as a one-time equipment purchase but would have to be spent before the end of 2005. The Subcommittee agreed to give the \$20,000 to GSMFC for a one-time equipment purchase, but if Florida does need the money this coming year, it will be given to them. P. Choucair asked if the funds could be used for meetings and J. Rester said it may be possible to get permission to change categories, and if the money is not spent by 2005, they can apply for a 90-day extension. It was also suggested to use the money for data management and/or software purchases if it has not been used by the end of 2005.

J. Hanifen suggested the Subcommittee develop a "shopping list" not to exceed \$40,000 for next year. D. Donaldson said it should be \$20,000.00 for discussion because it has been agreed upon to leave the \$15,000 in Alabama. J. Rester agreed and said it would be the \$20,000 from Florida. J. Hanifen said he does not have a problem with that but since representatives from Mississippi and Florida are not present to agree, he would like to have some options and then have a conference call with all members to finalize before submitting the new funding application. R. Leard suggested deferring this to the conference call to come up with the final split.

D. Donaldson said to summarize, there are essentially two \$20,000 to discuss either later during this meeting or via conference call at a later date. One scenario is \$15,000 stays with Alabama and \$5,000 will go to GSMFC for equipment purchases for either the GSMFC or any of the partners. The other \$20,000 would be an equipment line item for the GSMFC for a one-time purchase. Suggestions so far have been the hydro lab, software or other data management needs, and asking permission to change to meetings.

J. Rester said another thing that needs to be discussed is NMFS has always agreed to level funding which should be \$220,510, but when trying to track down the tax money, nothing was adding up. NMFS was not receiving level funding but they were receiving \$260,196, almost a \$40,000 increase over level funding. J. Rester said that in discussions with S. Nichols, if SEAMAP is level funded, that additional \$40,000 (or as little as \$20,000) may be split between the components. J. Rester also stated that he is concerned because during budget discussions every year, NMFS stated they would stay level funded and pay the taxes, but they were actually receiving more money than discussed. He would like to know if NMFS actually spent the money or returned it.

D. Donaldson stated that the Subcommittee needs to decide if they can use the extra money from NMFS or if they want to give it to one of the partners. If it is between \$10,000 - \$40,000 and the Gulf has the additional \$20,000, something can definitely be done with the money. It is hard to plan because it may only be one-time money.

J. Rester read an email from S. Nichols concerning how the Subcommittee should plan for FY2005: "For FY04 funds, i.e., this year, the account now shows more than we were told we would get due to the mid-year reduction. Ellie believes that amount will remain there and she has me "almost" convinced. Unfortunately, we are passed the grant's office deadline so even if the amount does hold,

I'll have to retain it within NMFS. However, my intent would be to make the amount available if it holds up to the components FY05 using other funds from the center. I would like to propose postponing dealing with that money until such a time as we address the additional funding and mid-year adjustments. Right now the amount is uncertain, but thanks to some detective work by Ellie and Cynthia, it appears to be in the order of 10K." J. Rester said he is not sure why it went down from 40K to 10K and he does not understand how the accounting practices work. J. Hanifen stated that in summation, there is some money available, but he is not sure how much or when it will be available to the components.

D. Donaldson said the Gulf still needs to decide if there is something they can use the money for or if they want to give it to the other components. P. Choucair suggested using it for data management regardless of the amount. J. Hanifen stated he liked the suggestion to use it for data management but which component would it go to? D. Donaldson said he would be hesitant to give it to NMFS for data management. P. Choucair said he meant GSMFC data management such as new atlas format development, GIS mapping for the data, contracting to build new interfaces for all the states, etc. J. Rester suggested improving real time by standardizing the format. The Subcommittee agreed with all suggestions and agreed to have a conference call when they know the exact amount of money they need to discuss.

Questions Regarding SEAMAP Taxes

J. Rester said that at the March meeting the Subcommittee decided to send a letter to Bill Hogarth asking that SEAMAP be exempt from the taxes with justification being a lot more work can be done with that money. SEAMAP is a key component for stock assessments and other data that NMFS needs. B. Hogarth's reply was that he agreed SEAMAP was a very valuable program, but they are still going to be taxed. The taxes for 2004 were \$78,345. J. Rester said that is when they realized the amounts were not adding up. He said that with the amounts all the components agreed to were subtracted from \$1.75 million, it would be more than \$40,000 that was not accounted for. L. Simpson made quite a few telephone calls and sent emails trying to get answers. E. Roche said that for the 2004 funding of \$1.75 million there was a commerce, justice and state recession of .465%, which equaled \$8,100, then there was a federal across the board rescission of .59% and that equaled to \$10,277. The realignment requirements of all PPAs were reduced by 3.461%, which equaled roughly \$60,000. Deducting all of these amounts equal \$78,345 so the questions were finally answered but the Subcommittee needs to know if that amount should be expected to be deducted in 2005, and so far there has been no answer.

D. Donaldson said that some programs last year were able to skirt that rescission, but they do not expect that to happen this year. J. Rester said the .59% and the 3.461% were taken out after being told they received the new money. He said they would like to know where these "taxes" are going and the best answer he has had was from E. Roche who said it goes somewhere in the treasury. R. Leard said SEAMAP is a line item in the budget like the Councils and the Councils are not taxed, so why is SEAMAP? J. Rester said that is one of the arguments. D. Donaldson said historically, SEAMAP has not been taxed and FIN has not either, but all of a sudden FIN was taxed. J. Rester asked how much money is NMFS agreeing to and how much are they actually receiving. He said he has gone back since 1985 and looked at the funding totals of the three components and NMFS

numbers are not adding up, SEAMAP is losing money to something. J. Hanifen stated that in the past the Subcommittee knew the amount of taxes before planning their budgets, but this past year the taxes were taken out after the documents were completed. After more discussion, the Subcommittee decided to take this issue to the joint meeting and ask S. Nichols and E. Roche to explain the accounting practices more clearly so the component's can budget more efficiently.

Fishery Independent Database Issues

D. Donaldson said this issue will be discussed in detail at the joint meeting, but he wanted to make the Subcommittee aware that the subgroup has developed some protocols and minimum data elements, and he will go into depth on those items at the joint meeting. He said they are moving forward with taking the SEAMAP data and other fishery-independent data and developing a data management system and housing it at the commission to provide access to fishery independent data. He said this is a region wide initiative, but the South Atlantic and Caribbean have not really gotten involved. The Subcommittee agreed to keep pursuing this with or without the other component's cooperation.

SEAMAP Database Issues

J. Rester said he completed Microsoft Access training and has received the SEAMAP database in Access format. He has started to standardize the information, but has come across some problems in the database. He said he wanted to bring up some of these issues today. He said the Subcommittee should appoint a group to identify fully all the issues with the database and how to fix it. He said one of the issues with the database and why users have problems using the data is some of the things in the database are not SEAMAP. D. Donaldson said the reason for that is because it is a NMFS database and that is fine, but if SEAMAP data only is requested, that data should be the only thing that comes up. He said that goes back to data management issues, they do not see the difference between what they do and SEAMAP so they do not separate it and that has hurt the SEAMAP program. R. Leard suggested the problem may be too many people have access to not only entering data into the database, but to determine and having the authority to say what goes in there. The data manager may not even be aware of all that is in there. After discussion it was determined that J. Rester received the wrong information and M. McDuff will rerun the data and send him SEAMAP data only. J. Rester then asked which trawls do they want to standardize in the database for the ArcIMS site. P. Choucair suggested using the term normalized instead of standardize. J. Rester said that he has been documenting everything he has done with the database. J. Hanifen suggested using the 20 and 40 ft. trawls as the standard gear for use on the ArcIMS site and all agreed. M. McDuff suggested using only the standard surveys and all agreed. P. Choucair suggested having specific codes in the data identifying it as SEAMAP data, which survey it is, year, month, etc. He then explained how he has set up tables for Texas data. After more lengthy discussion, the Subcommittee asked M. McDuff to give a complete presentation on the abilities and querying the database at the October meeting. He requested to have high-speed Internet access for his presentation.

M. McDuff said they do not have full documentation sets on what the differences are in the data with each state. He said each state needs to document anything that is done differently from the standard SEAMAP protocols.

J. Rester asked what the status is of the full taxonomic name in the database that the biocode group was working on. M. McDuff said they have basically developed the ORACLE structures to fit the new database, but they are not going to try to go back and put them in the old one. He said they have submitted everything in the database to ITIS and most everything was in there and those that were not were added.

J. Rester asked in reference to the list of errors he found in the database with count and subcount and weights and subweights, etc., what type of error checks run after the data is entered into the database? M. McDuff said that is a problem in that nothing is run after the data is entered. The original design was that error checking was done at the PC level. It was supposed to be fully processed and cleaned and then uploaded into the database, but most people did not do that. He said that in the new version they will have every check they can at the database level. They want it to be as close to the data collection as possible. They want the error checking in the field in real time, but they also want the same error checks to be built into the database. P. Choucair suggested building into the system a way to generate a report summarizing the data when submitted by each state. This will help verify that all the information is in the system. The Subcommittee will ask the data group to discuss this issue and have recommendations in October.

M. McDuff also suggested having documentation of the protocols each state uses stating the differences between the data. He said that right now they only have documentation on the different gear types used to collect the data not how the data differs from one dataset to the next. J. Hanifen asked M. McDuff to send a questionnaire to each state with specific questions on how they collect the data. He can then compare to see the differences. This will probably have to be done yearly. M. McDuff also said that NOAA data quality is requiring documentation be given with all data explaining the survey design. He also asked that each state send him the cruise reports so they can be put in PDF format. J. Hanifen said this is another thing the data group can discuss and have recommendations for October.

2004 Real Time Data

J. Rester said the real time data was distributed this summer to over 200 people by mail and 70 by email. He said he will develop some new ideas to show at the October meeting on making the real time data a better product to serve the public. J. Hanifen asked him to email his ideas as he is developing them so they will have previews beforehand.

Other Business

M. McDuff asked if Alabama and Louisiana are still interested in using the FSCS. They said yes but it would have to be done by laptop instead of wiring the vessels. M. McDuff said he will work on this and set up training for both states.

M. McDuff said they also want to retire the old clipper data entry system and go with the Microsoft Access entry system that feeds right into the FSCS and SCS. He will also set up training for this at Stennis if possible.

P. Choucair suggested requesting more time for the October meeting. J. Rester said he would make the necessary arrangements.

With no further business, the meeting adjourned at 11:55 a.m.

Draft

APPENDIX B

2005 SEAMAP OPERATIONS PLAN

SEAMAP-GULF OF MEXICO

OPERATIONS PLAN

January 1, 2005 - December 31, 2005

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.

Organizations directly involved in planning and managing the Gulf's program are the marine fishery management agencies of Florida, Alabama, Mississippi, Louisiana, and Texas, the National Marine Fisheries Service (NMFS), the Gulf of Mexico Fishery Management Council (GMFMC) and the Gulf States Marine Fisheries Commission (GSMFC) which administers the Gulf program. Sea Grant Directors are also asked to attend and participate in SEAMAP-Gulf Subcommittee meetings.

A five year *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005* has been developed for the SEAMAP outlining goals and objectives; management structure and responsibilities; data collection activities along with management and dissemination of the data; and financial and personnel resources necessary for successful operation of the program. This Management Plan, along with the *1981 SEAMAP Strategic Plan* and *SEAMAP Management Plan: 1996-2000* should be considered as charter documents defining and guiding operations of the Gulf program. An external review of SEAMAP-Gulf and South Atlantic was performed in 1987, and endorsement of specific recommendations was adopted by consensus of the joint SEAMAP-Gulf Subcommittee and SEAMAP-South Atlantic Committee. These recommendations, as implemented, will guide activities and operations of SEAMAP-Gulf, as well as the South Atlantic and Caribbean components.

Five major goals were outlined in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005* and remain as key missions:

- (1) Collect long-term standardized fishery-independent data consistent with established fisheries data systems on the condition of regional living marine resources and their environment;

- (2) Cooperatively plan and evaluate SEAMAP-sponsored activities;
- (3) Operate the SEAMAP Data Management System for efficient management and timely dissemination of fishery-independent data and information;
- (4) Identify and describe existing non-SEAMAP databases and activities that are of value in fishery-independent assessments of regional living marine resources; and
- (5) Coordinate and document SEAMAP activities, and disseminate programmatic information.

Each of these goals is implemented by several objectives requiring specific tasks and events, e.g. a Summer Shrimp/Groundfish Survey. By intent, some specific tasks may fulfill more than one objective. Each of the participants in the Gulf program receives a portion of the annual Congressional allocation to perform tasks associated with the goals. Participants also contribute significant in-kind support for activities.

The SEAMAP-Gulf and South Atlantic committees, meeting jointly in January 1988, accepted the Program Review recommendation to develop separate annual operations plans. During the SEAMAP Joint meeting held August 2004, the SEAMAP-Gulf, South Atlantic, and Caribbean, to coincide with the new NOAA Grant procedures, agreed to develop an operations plan on a three year basis. This SEAMAP-Gulf Annual Operations Plan describes planned activities and events for the period January 1, 2005 through December 31, 2005. Detailed information on Gulf program objectives, activities, administrative procedures, data management protocols, information dissemination and funding requirements are found in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005*.

SURVEYS

Spring and Fall Plankton Surveys

The objectives of the spring and fall plankton surveys are to provide data on the distribution and abundance of eggs and larvae of commercial and recreational species such as bluefin tuna, mackerels, carangids, sciaenids and lutjanids. Stations are located in a systematic grid across the northern Gulf at increments of 30 minutes latitude/longitude.

Plankton samples will be taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consists of two conical 61-cm (mouth opening) nets with 333 micron mesh. Tows are oblique, surface to within 5 m above the bottom (or 200 m maximum) and back to surface. Wire angle will be maintained at 45°. Neuston samples will be taken with 947 micron mesh nets on 1 x 2 meter frames towed at the surface for ten minutes. Most plankton samples are to be initially preserved in 10% buffered formalin and after 48 hours transferred to 95% ethyl alcohol for final

preservation. Some samples are initially preserved in 95% ethanol for use in genetics and age/growth studies. Hydrographic data at all stations will include at a minimum chlorophyll or fluorescence, salinity, temperature and dissolved oxygen, and water color, using the Forel-ule test.

Right bongo samples and neuston samples collected in 2005 from SEAMAP stations will be transshipped by the NMFS Pascagoula Laboratory to the Polish Sorting and Identification Center for sorting and identification, after which the larvae removed from those samples will be returned to the SEAMAP Archiving Center at Florida Marine Research Institute in St. Petersburg, Florida. Left bongo and neuston samples from previous surveys are currently archived at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC) housed at the USM/CMS Gulf Coast Research Laboratory in Ocean Springs, Mississippi.

Reef Fish Survey

The objectives of the survey are to:

- (1) assess relative abundance and compute population estimates of reef fishes using a 4-camera system and fish traps;
- (2) determine habitat using an echo sounder and video camera;
- (3) estimate length distributions of fishes using lasers; and
- (4) collect environmental data at each station.

The primary purpose of this survey is to assess the relative abundance and compute population estimates of reef fishes. Stations are 100 m² sites designated as “reef areas” that are selected by a stratified random sample procedure. The 4-camera system soaks on the bottom for 30 minutes. A chevron fish trap is employed to collect fish specimens and soaks for 1 hour.

Summer Shrimp/Groundfish Survey

Objectives of this survey are to:

- (1) monitor size distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf;
- (2) aid in evaluating the management measures of the GMFMC's Shrimp Fishery Management Plan;
- (3) provide information on shrimp and groundfish stocks across the northern Gulf of Mexico from inshore waters to 60 fm;

- (4) obtain length frequency measurements for major finfish, shrimp and other important invertebrate species to determine population size structures; and
- (5) collect ichthyoplankton samples to determine abundance and distribution of the larvae of commercial and recreationally important species.

The sampling strategy will include sites chosen randomly in three areas (east of the Mississippi River, west of the River to the Texas-Louisiana border and off Texas) stratified by depth and statistical area. Trawls will be towed perpendicular to the depth contours and cover a specified depth stratum at each station. Plankton samples will be taken along a 1/2 degree grid system.

Fall Shrimp/Groundfish Survey

Objectives of this survey will be to:

- (1) sample the northern Gulf of Mexico to determine abundance and distribution of white shrimp and other demersal organisms from inshore waters to 60 fm;
- (2) obtain length frequency measurements for major finfish, shrimp and other important invertebrate 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 plankton samples to determine relative abundance and distribution of the larvae of commercial and recreationally important species.

Trawl sample stations and plankton sampling will be conducted as described for the Summer Shrimp/Groundfish Survey.

OPERATIONS

The following activities and events by participant comprise the SEAMAP-Gulf of Mexico operations schedule for the period January 1, 2005 to December 31, 2005:

Texas Parks and Wildlife Department

- (1) Summer Shrimp/Groundfish Survey: June, nearshore and offshore Texas waters
- (2) Fall Shrimp/Groundfish Survey: November, nearshore and offshore Texas waters
- (3) Reef Fish Survey: sampling in Texas waters

- (4) Adult Finfish Survey: March-May, nearshore Texas waters
- (5) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee
- (6) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

Louisiana Department of Wildlife and Fisheries

- (1) Summer Shrimp/Groundfish Survey: July, nearshore and offshore Louisiana waters
- (2) Fall Shrimp/Groundfish Survey: October-November, nearshore and offshore Louisiana waters
- (3) Fall Plankton Survey: September, nearshore and offshore Louisiana waters
- (4) Winter Seasonal Shrimp/Groundfish Survey: November-December, nearshore and offshore Louisiana waters
- (5) Plankton sampling in conjunction with trawl surveys
- (6) Plankton sample sorting and identification
- (7) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee
- (8) Process sediment and chlorophyll samples
- (9) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

University of Southern Mississippi/College of Marine Sciences/Gulf Coast Research Laboratory

- (1) Spring eddy and front Plankton survey
- (2) Summer Shrimp/Groundfish Survey: June and July, Gulf waters
- (3) Fall Plankton Survey: September, nearshore and offshore Gulf waters
- (4) Fall Shrimp/Groundfish Survey: October, Gulf waters
- (5) Plankton sampling in conjunction with trawl surveys

- (6) SEAMAP Invertebrate Plankton Archiving Center operations
- (7) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

- (8) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

Alabama Department of Conservation and Natural Resources

- (1) Summer Shrimp/Groundfish Survey: June and July, nearshore Gulf waters
- (2) Fall Plankton Survey: September, nearshore Gulf waters
- (3) Fall Shrimp/Groundfish Survey: October-November, nearshore Gulf waters
- (4) Reef Fish Survey: sampling in nearshore Alabama waters
- (5) Quarterly estuarine shrimp/groundfish sampling
- (6) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee
- (7) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

Florida Fish and Wildlife Conservation Commission

- (1) Spring Plankton Survey: May, nearshore/offshore Gulf waters off Florida
- (2) Fall Plankton Survey: September, nearshore/offshore Gulf waters
- (3) SEAMAP Archiving Center operations
- (4) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee
- (5) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

National Marine Fisheries Service, Southeast Fisheries Science Center

- (1) Reef Fish Survey: July-August, offshore Gulf waters
- (2) Spring Plankton Survey: April-May, offshore Gulf waters
- (3) Summer Shrimp/Groundfish Survey: June-July, offshore Gulf waters
- (4) Fall Plankton Survey: September-October, offshore Gulf waters

- (5) Fall Shrimp/Groundfish Survey: October-November, offshore Gulf waters
- (6) Plankton sampling in conjunction with trawl surveys
- (7) SEAMAP Information System implementation and operations
- (8) Processing and transshipment of SEAMAP plankton samples to the Polish Sorting and Identification Center
- (9) Real-time data processing
- (10) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

Gulf of Mexico Fishery Management Council

- (1) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee
- (2) Annual review of fisheries-independent data needs

Gulf States Marine Fisheries Commission

- (1) Coordination of meetings for Subcommittee and work groups
- (2) Provision of SEAMAP-Gulf Coordinator, clerical and office support
- (3) Publication and distribution of SEAMAP Environmental and Biological Atlas, SEAMAP Marine Directory, SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee, Real-time data summaries, minutes of Subcommittee meetings and co-production of the SEAMAP Joint Annual Report
- (4) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee
- (5) Annual Operations Plan development

INFORMATION DISSEMINATION

Data produced from SEAMAP-Gulf of Mexico surveys and studies will be entered into the SEAMAP Information System, in accordance with procedures and protocols stated in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005*. User policies and procedures are also defined in this document.

The SEAMAP Archiving Center and SIPAC have the responsibility of maintaining SEAMAP specimens and samples, processing specimen requests and ensuring that archiving and loans are carried out in accordance with guidelines and policies established by the SEAMAP Subcommittee. Specific duties and responsibilities of the curators are found in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan 2001-2005*.

Documents to be produced in the period covered by this Annual Operations Plan are:

- (1) SEAMAP Annual Report, in conjunction with South Atlantic and Caribbean;
- (2) SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee;
- (3) SEAMAP Marine Directory;
- (4) Minutes of Subcommittee meetings;
- (5) SEAMAP Environmental and Biological Atlas;
- (6) Annual Operations Plan;
- (7) Real-time Data Summaries of the Summer Shrimp/Groundfish Survey and juvenile red snapper summary;
- (8) Maintain SEAMAP web page on Commission's website; and
- (9) Other pertinent documents deemed appropriate by the Subcommittee

ADMINISTRATION

Program administration is achieved through coordination by the SEAMAP-Gulf Subcommittee and work groups, the SEAMAP Coordinator, and the Gulf States Marine Fisheries Commission. General responsibilities are described below.

SEAMAP-Gulf of Mexico Subcommittee

The Subcommittee will convene for three regularly-scheduled meetings during 2005:

- (1) Spring meeting (in conjunction with the GSMFC Annual Spring Meeting): March;
- (2) Joint meeting (with SEAMAP-Caribbean & SEAMAP-South Atlantic): August; and
- (3) Fall meeting (in conjunction with the GSMFC Annual Fall Meeting): October.

Other meetings may be called at the discretion of the Chairman. Specific responsibilities of the Subcommittee and procedures of governance are described in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005*. Designated members for 2005 are:

Texas Parks and Wildlife Department:	Paul Choucair
Louisiana Department of Wildlife and Fisheries:	James Hanifen
University of Southern Mississippi/College of Marine Sciences/Gulf Coast Research Laboratory:	Richard Waller
Alabama Department of Conservation & Natural Resources:	Stevens Heath
Florida Fish and Wildlife Conservation Commission:	Mark Leiby
National Marine Fisheries Service:	Joanne Lyczkowski-Shultz
Gulf of Mexico Fishery Management Council:	Richard Leard (non-voting)

Work Groups

SEAMAP work groups are formed to assist in planning, coordinating and evaluating program activities. Members of work groups are invited to serve by the Subcommittee and do not have to be members of the Subcommittee. SEAMAP-Gulf work groups and membership for 2005 are:

ADULT FINFISH WORK GROUP

Terry Henwood
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
Texas Parks and Wildlife Department

John Roussel
Louisiana Department of Wildlife and Fisheries

Robert Shipp
University of South Alabama

Richard Leard
Gulf of Mexico Fishery Management Council

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

James Warren
University of Southern Mississippi
College of Marine Sciences/GCRL

DATA COORDINATING WORK GROUP

Mark McDuff, Leader
SEAMAP Data Manager
National Marine Fisheries Service

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

Terry Romaine
Louisiana Department of Wildlife and Fisheries
Environmental Data Work Group

Richard Waller
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory
Reef Fish Work Group

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

ENVIRONMENTAL DATA WORK GROUP

Terry Romaine, Leader

Louisiana Department of Wildlife and Fisheries

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

National Marine Fisheries Service
Pascagoula Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Kim Williams
Florida Fish and Wildlife Conservation
Commission

Mark Van Hoose
Alabama Department of Conservation and
Natural Resources

Richard Waller
Gulf Coast Research Laboratory
University of Southern Mississippi
College of Marine Sciences

PLANKTON WORK GROUP

Joanne Lyczkowski-Shultz, Leader

National Marine Fisheries Service

Pascagoula Laboratory

Alonzo Hamilton
National Marine Fisheries Service
Pascagoula Laboratory

Mark Benfield
Louisiana State University

Ken Edds
Louisiana Department of Wildlife and Fisheries

Sara LeCroy, Curator
SEAMAP Invertebrate Plankton Archiving
Center (SIPAC)
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

Harriet Perry
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Leslie Hartman
Alabama Department of Conservation
and Natural Resources

RED DRUM WORK GROUP

Mike Murphy, Leader

Florida Fish and Wildlife Conservation Commission
Florida Marine Research Institute

James Warren
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose
Alabama Department of Conservation and Natural
Resources

Larry McEachron
Texas Parks and Wildlife Department

REEF FISH WORK GROUP

Richard Waller, Leader

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

Billy Fuls
Texas Parks and Wildlife Department

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Jim Duffy
Alabama Department of Conservation and
Natural Resources

Richard Kasprzak
Louisiana Department of Wildlife and Fisheries

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader

National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
Texas Parks and Wildlife Department

Bruce Comyns
University of Southern Mississippi
College of Marine Sciences
Gulf Coast Research Laboratory

Ken Edds
Louisiana Department of Wildlife and Fisheries

Leslie Hartman
Alabama Department of Conservation and Natural
Resources

Nate Sanders
Pascagoula Laboratory
National Marine Fisheries Service

SEAMAP work groups will meet as determined by work group leaders. Specific responsibilities of the work groups are described in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005*.

SEAMAP-Gulf Coordinator

The Coordinator's primary responsibility is to assist the Subcommittee in ensuring that the SEAMAP-Gulf component functions efficiently and satisfies user requirements. The *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005*, schedule of events, survey plans, and GSMFC directives constitute the basic documents by which the Coordinator monitors program status, coordinates Subcommittee meetings and operations, anticipates potential problems, and initiates corrective action. Specific responsibilities of the Coordinator are described in the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005*

Gulf States Marine Fisheries Commission

Planning and funds disbursement for authorized SEAMAP-Gulf administrative activities (travel meetings, publications, information dissemination, etc.) are administered by the Gulf States Marine Fisheries Commission under a NMFS/GSMFC Cooperative Agreement, and in accordance with this Annual Operations Plan, GSMFC policies, and Department of Commerce/National Oceanic and Atmospheric Administration policies and procedures.