ANNUAL REPORT

TO THE

TECHNICAL COORDINATING COMMITTEE

GULF STATES MARINE FISHERIES COMMISSION

OCTOBER 1, 2001 TO SEPTEMBER 30, 2002

SEAMAP Subcommittee

James G. Hanifen, Chairman

Jeffrey K. Rester

SEAMAP Coordinator

September 30, 2002 **GSMFC No: 104**

TABLE OF CONTENTS

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 1985-2002 (October 1 through September 30). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY2002 were handled through State/Federal cooperative agreements, administered by SERO and the Southeast Fisheries Science Center (SEFSC), National Marine Fisheries Service (NMFS).

In FY2002, SEAMAP operations continued for the twenty-first consecutive year. SEAMAP resource surveys included the Fall Plankton Survey, Fall Shrimp/Groundfish Survey, Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Reeffish Survey, and plankton and environmental data surveys. Other FY2002 activities included SEAMAP information services and program management.

This report is the nineteenth 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 FY2002 and proposed SEAMAP activities for FY2003.

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

FY2002 SEAMAP RESOURCE SURVEYS

Resource survey information continued for the twenty-first 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 1986-2000 covered Gulf waters from Florida Bay to Brownsville, Texas. The Fall

Plankton cruise took place from August 28, 2001 through December 5, 2001. Florida, Alabama, NMFS, Mississippi, and Louisiana sampled 171 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 10 - December 13, 2001, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm, covering 334 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 49 stations was sampled

with bongo and/or neuston nets, as encountered along cruise tracks. NMFS completed 46 ichthyoplankton stations, Mississippi completed 2 stations, and Louisiana completed 7 stations. The Polish Sorting and Identification Center will sort the samples, except those taken by Louisiana. 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 April 18, 2002 through May 31, 2002. One hundred sixty-seven stations were sampled from the west Florida shelf to the Louisiana/Texas border. This was the twenty-first 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 will be transshipped to the Polish Sorting and Identification Center. Left bongo samples will be 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 sampling April 2 through May 31, 2002. Three hundred twenty-four sites were sampled using trap videos and fish traps.

Summer Shrimp/Groundfish Survey

During the spring of 2002, 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 2002 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 entire survey occurred from June 3 through July 17, 2002. This was the twenty-first year for the survey.

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 1982-2001 have been entered into the system and data from 2002 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 252 SEAMAP data requests have been received. In most instances, requests were filled promptly. To date, 248 requests have been completed. During this reporting period, 13 requests were received.

Requested SEAMAP data were used for a multitude of purposes in 2002:

- 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 2002 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 2002 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.

Data from the 2001 Fall Shrimp/Groundfish Survey were used to produce red snapper real-time plots. These plots described research trawl effort and catch rates for juvenile red snapper during the Survey. This was the fourth year the plots were produced and distributed to interested individuals.

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. For 2002, 30,492 samples were returned from the Polish Sorting and Identification Center. Data entry for sorted samples is being completed in the new Oracle format of the SEAMAP DMS. The 34,725 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 both specimen loans and requests for associated plankton survey data. Ninety-nine requests have been accommodated this year to nine different researchers at both the state and federal level, and one Florida high school.

SEAMAP Invertebrate Plankton Archiving Center

The SIPAC is in its eighteenth year of operation. Sara LeCroy at the USM/COMS/GCRL currently serves as 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 graduate student previously employed by SIPAC graduated during the previous year and has been replaced by another student assistant this year. This person assists 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 542 additional bongo net samples (12 from year 1997 plankton cruises; 269 from year 2000 plankton cruises; 261 from year 2001 plankton cruises). In addition, approximately 180 bongo samples were returned to the NMFS laboratory in Pascagoula, Mississippi, for further analysis and

the collections were reorganized to allow more space for incoming samples. The number of samples currently cataloged in the SIPAC collections is 8,151, 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 their original volume and placed into 100 ml vials, as necessary. When possible, the remaining 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 to the removal of approximately 180 samples to the NMFS - Pascagoula during the current year, there is presently sufficient space available for additional samples to be deposited into the SIPAC archives without continuing the aliquoting of 1988-1991 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 2001 and March 2002, in conjunction with the Annual Meetings 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 2002 to discuss respective program needs and priorities for FY2003.

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 2002. 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:

- *2002 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, 2000 to September 30, 2001.* 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, 2001 to September 30, 2002.* A summary of FY2002 activities and proposed FY2003 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.

- *Environmental and Biological Atlas of the Gulf of Mexico, 2000.* A compilation of information obtained from the 2000 SEAMAP survey including catch rates of shrimp and finfish, abundance and distribution of plankton in the Gulf of Mexico and environmental data from all surveys.

Proposed 2003 Activities

Preliminary 2003 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 $1.4 million. At the August meeting, the SEAMAP components based their allocations on level funding for 2003. At this level, the share to be allocated for SEAMAP-Gulf activities (including GSMFC) will be $612,403.

Proposed 2003 activities for all Gulf participants are shown in Table 4. The approved 2003 Operations Plan for SEAMAP-Gulf is contained in Appendix B.

FY2002 Financial Report

Total allocations for FY2002 program administration were $90,564. 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, 2002.

TABLE 1.

SEAMAP REPRESENTATIVES FOR FY2002

James G. 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 Marine Research Institute

Paul Choucair
Texas Parks and Wildlife Department

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

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

TABLE 2.

SEAMAP WORK GROUP MEMBERS FOR FY2002

ADULT FINFISH WORK GROUP

Terry Henwood, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
Texas Parks and Wildlife Department

Mark Leiby
Florida Fish and Wildlife Conservation Commission

John Roussel
Louisiana Department of Wildlife and Fisheries

Robert Shipp
University of South Alabama

Rick Leard
Gulf of Mexico Fishery Management Council

James Warren
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

Mark McDuff, Leader
SEAMAP Data Manager
National Marine Fisheries Service
Pascagoula Laboratory

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

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

Terry Romaire
LA Department of Wildlife and Fisheries
Environmental Data Work Group

Jim Hanifen
LA Department of Wildlife and Fisheries
SEAMAP Chairman

ENVIRONMENTAL DATA WORK GROUP

Terry Romaire, Leader
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

Rob Ford
National Marine Fisheries Service
Pascagoula Laboratory

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Kim Williams
Florida Fish and Wildlife Conservation Commission

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

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

Ken Edds
Louisiana Department of Wildlife and Fisheries

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

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

Mark Benefield
Louisiana State University

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

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Larry McEachron
Texas Parks and Wildlife Department

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

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

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Richard Kasprzak
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Jim Duffy
Alabama Department of Conservation and Natural Resources

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
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 2003 PROGRAMMATIC BUDGET

Alabama Department of Conservation and Natural Resources	68,000
Florida Fish and Wildlife Conservation Commission	111,340
Louisiana Department of Wildlife and Fisheries	135,200
University of Southern Mississippi/College of Marine Sciences/ Gulf Coast Research Laboratory	138,495
Texas Parks and Wildlife Department	58,804
Gulf States Marine Fisheries Commission	90,564
TOTAL	$612,403

TABLE 4.

PROPOSED SEAMAP-GULF ACTIVITIES, 2003

	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

MINUTES FOR 2001 AND 2002 SEAMAP MEETINGS

SEAMAP Subcommittee Meeting
MINUTES
New Orleans, LA
Tuesday, October 30, 2001

Call to Order

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

Members:
Kirsten Larsen (Representing Richard Waller), USM/CMS/GCRL, Ocean Springs, MS
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Jim Hanifen, LDWF, Baton Rouge, LA
Terry Cody, TPWD, Rockport, TX
Joanne Lyczkowski-Shultz, NMFS, Pascagoula, MS
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Rick Leard, GMFMC, Tampa, FL

Others:
Vernon Minton, ADCNR/MRD, Gulf Shores, AL
Scott Nichols, NMFS, Pascagoula, MS
Mark McDuff, NMFS, Pascagoula, MS
Kevin Rademacher, NMFS, Pascagoula, MS
Page Campbell, TPWD, Rockport, TX
Dale Hall, USFWS, Atlanta, GA
William "Corky" Perret, MDMR, Biloxi, MS
Marty Bourgeois, LDWF, Baton Rouge, LA
Paul Choucair, TPWD, Rockport, TX
Mike Spranger, FLSG, Gainesville, FL
Michelle Kasprzak, LDWF, Baton Rouge, LA
Betty Hutcherson, LDWF, Baton Rouge, LA
Terry Romaire, LDWF, Baton Rouge, LA
Marsha Strong, LDWF, Baton Rouge, LA
Jason Duet, LDWF, Baton Rouge, LA
Jan Bowman, LDWF, Baton Rouge, LA
Edward Belden, LDWF, Baton Rouge, LA
Lisa Bare, LDWF, Baton Rouge, LA
Isis Longo, LDWF, Baton Rouge, LA

Staff:
Ron Lukens, GSMFC, Ocean Springs, MS
Dave Donaldson, GSMFC, Ocean Springs, MS
Jeff Rester, GSMFC, Ocean Springs, MS
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

T. Cody moved to adopt the agenda as submitted. J. Shultz seconded, and it passed unanimously.

Approval of Minutes

J. Shultz moved to approve the August 8, 2001 minutes as submitted. M. Leiby seconded, and it passed unanimously.

Administrative Report

J. Rester reported the annual SEAMAP report to the TCC was completed and distributed. The SEAMAP Management Plan for 2001-2005 has been received from the printer. The Environmental Data Work Group is still waiting for the National Coastal Data Development Center to issue their request for proposals. The RFP was to have been issued October 1, but because of the terrorist attacks on September 11, this date has been delayed until November. The SEAMAP database public view was completed. Public users of the SEAMAP database now see a limited list of variables when querying the database. He has also been working on the help section for the SEAMAP database. The help section will guide users through the intricacies of using Business Objects to query the database. The help section will be completed in the near future. The Fall Plankton Survey started on August 28.

Fishery Independent Sampling in Louisiana

M. Bourgeois made a presentation on the Louisiana Department of Wildlife and Fisheries Fishery-Independent Monitoring Program. He reviewed the objectives, species, areas, and gears used in the monitoring program. A copy of the presentation is available from the GSMFC office.

NMFS Reef Fish Survey

K. Rademacher reported that in 1995 the SEAMAP Reef Fish Work Group sponsored a workshop to formulate recommendations and guidance for both SEAMAP and NMFS in developing a survey design for sampling reef fish, particularly red snapper, on the oil and gas platforms in the Gulf of Mexico. He reviewed the objectives, methodology, and results of the study with the Subcommittee. A copy of the presentation is available from the GSMFC office.

K. Radenmacher then gave an update on the NMFS reef fish program. He said they have been conducting a reef fish survey utilizing a trap video methodology from 1992 until 1997. He said because of lack of funding and/or ship time they did not conduct the survey in 1998-2000. The survey started again in 2001. He said they switched from 8 millimeter cameras to digital video cameras and improved the camera array to a full mesh covering to help prevent it from getting hung up on the bottom. Other improvements have also been made to the camera array to make it more accessible to the ROV and the tape reading methodology also underwent changes.

Coordinated Fishery Independent Activities

D. Donaldson reported that in March of 1999 the Commission charged staff with developing coordinated fishery independent data activities. Obviously, SEAMAP is a major contributor to that, but there are other fishery independent data activities going on in the Gulf, South Atlantic and Caribbean. The FIN discussed this at their last meeting and decided that a program needs to be developed similar to FIN/ACCSP and the purpose should be to provide fishery-independent data in compatible formats, develop goals and objectives, develop necessary minimum data elements, develop a data management system, and identify issues and problems and then develop solutions. He said SEAMAP should be a major component of the coordinated program and needs to convene a meeting of all partners involved in fishery-independent activities. He said at this meeting the Subcommittee should develop goals and objectives and work with the Atlantic and Caribbean components. He said ASMFC agrees with this approach and wants SEAMAP to take the lead

After discussion of D. Donaldson's presentation, M. Leiby moved that the chairmen and vice chairmen of the three SEAMAP components meet and use the NEAMAP outline as a starting point to explore what is available and what is needed to start this program. T. Cody seconded it and it passed unanimously. D. Donaldson stated that funds are available to hold this meeting.

2000 SEAMAP Data Atlas

J. Rester asked the Subcommittee for comments on the 1999 SEAMAP data atlas that was in CD-ROM format. The Subcommittee agreed the CD-ROM worked fine. J. Rester then reviewed cost comparisons of the CD-ROM and the printed version. The CD-ROM costs significantly less to produce. **After discussion, J. Shultz moved to produce future atlases exclusively in digital format. M. Leiby seconded it and it passed unanimously**. The Subcommittee decided the CD-ROM should be mailed with an executive summary in a folder or with a special cover/holder in 8½ x 11 format. The color of the holder should change every year as with previous atlases. In addition to the executive summary, an instruction sheet should also be included and it should be made clear how to print the atlas if someone wants a printed version. J. Rester then asked the Subcommittee to please take photographs and videos on all of the cruises and he will incorporate them into future atlases and presentations. He will also participate in as many cruises as possible to take photographs and videos as well.

Changes to the SEAMAP Database

J. Rester reported that he and Mike Sestak with GSMFC have been working on the database with M. McDuff and S. Nichols. He said M. Sestak is trying to translate the database into Business Objects software so the database may be viewed via the web. He has made several changes over the past few months and wants to know if NMFS has plans for other changes to the database. M. McDuff stated that the database will never be final it will always have changes as new programs are started. He said immediate changes will be made to the ichthyoplankton and environmental sections and they will continue to work with M. Sestak on future changes. They are also working on standardizing all of the cruise information. He also noted that SAS and ORACLE works well together so they have not had any major problems with that.

Election of Chairman

T. Cody moved to nominate J. Hanifen for Chairman and S. Heath for Vice Chairman and asked the nominations be accepted and elected by acclamation. M. Leiby seconded and it passed unanimously.

Other Business

J. Shultz informed the Subcommittee that the Plankton Work Group and other key field people need to meet to discuss data problems. It was also suggested that the Shrimp/Groundfish Work Group meet before going to sea. The Subcommittee asked J. Rester to see if funding is available and to inform the Subcommittee so arrangements can be made for the meetings.

T. Cody asked M. McDuff if there is a need for an updated version of the SEAMAP codes and protocols. M. McDuff said the data entry system will change in that they are moving towards multiple ways of entering data. He will keep the Subcommittee informed as these changes are made. S. Nichols informed the Subcommittee that both state and federal data were used in the last stock assessments.

There being no further business, the meeting adjourned at 11:35 a.m.

SEAMAP Subcommittee Meeting
MINUTES
Biloxi, MS
March 19, 2002

Call to Order

Chairman Jim Hanifen called the meeting to order at 8:34 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
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Terry Cody, TPWD, Rockport, TX
Joanne Lyczkowski-Shultz, NMFS, Pascagoula, MS
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Rick Leard, GMFMC, Tampa, FL

Others:
Kim Williams, FWC/FMRI, St. Petersburg, FL
Greg Boland, MMS, New Orleans, LA
Michelle Kasprzak, LDWF, Baton Rouge, LA
Michael Brim, USFWS, Panama City, FL
Kirsten Larsen, USM/CMS/GCRL, Ocean Springs, MS
Pam Bond, NOAA/NMFS, Pascagoula, MS
Tut Warren, USM/CMS/GCRL, Ocean Springs, MS
Connie Cowan, NOAA/NMFS, Pascagoula, MS
Alonzo Hamilton, NOAA/NMFS, Pascagoula, MS
Butch Pellegrin, NOAA/NMFS, Pascagoula, MS
Denice Drass, NOAA/NMFS, Pascagoula, MS
Scott Nichols, NOAA/NMFS, Pascagoula, MS
David Hanisko, NOAA/NMFS, Pascagoula, MS
David Yeager, MBNEP, Mobile, AL
Joe O'Hop, FWC/FMRI, St. Petersburg, FL
Mike Buchanan, MDMR, Biloxi, 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
Jeff Rester, SEAMAP/Habitat Program Coordinator, GSMFC, Ocean Springs, MS
Cheryl Noble, Staff Assistant, GSMFC, Ocean Springs, MS

Adoption of Agenda

Under Other Business, B. Pellegrin will present the results of the Comparative Tow Survey, the Joint Meeting will be discussed, and Item No. 5 will be changed to Item No. 3. **T. Cody moved to adopt the agenda with these changes. J. Shultz seconded, and it passed unanimously**.

Fishery Independent Sampling in Mississippi

M. Buchanan gave a presentation on *Independent Fisheries Data Collection in Mississippi*. He reviewed the concept, history, sampling stations, gear, species, and data uses of the program. He said the focus on future programs will be on species with little data available. A complete copy of the presentation is available through the GSMFC office.

Approval of Minutes

R. Waller moved to approve the August 8, 2001 minutes as submitted. J. Shultz seconded, and it passed unanimously.

Administrative Report

J. Rester reported the Fall Plankton cruise took place from August 28 through December 5, 2001. Florida, Alabama, Mississippi, Louisiana, and the National Marine Fisheries Service sampled 171 stations on the west Florida shelf and northern Gulf of Mexico.

The Fall Groundfish Cruise took place from October 10 through December 13, 2001. Alabama, Mississippi, Louisiana, Texas and the National Marine Fisheries Service sampled 334 trawl stations and 49 plankton stations during the survey. Data from the survey were used to produce the 4th annual red snapper real-time plots. The plots are available on the GSMFC web site.

The 1999 SEAMAP Marine Atlas was produced and distributed in February 2002.

The SEAMAP Plankton Work Group met this past week and J. Shultz will give a presentation on the meeting results.

Mark McDuff met with Mike Sestak (GSMFC Staff) to develop relationships between the SEAMAP database and Business Objects software. M. Sestak is in the process of creating a public view of the database to access over the internet.

A conference call was held in February between the coordinators of the three SEAMAP components to discuss fishery independent sampling. They will meet in Tampa in May 2002 to further discuss this issue and develop goals and objectives to discuss at the August meeting.

Summary of the Plankton Work Group Meeting

J. Shultz reported there were 19 attendees at the Plankton Work Group Meeting. She said they have not met in over 10 years to discuss protocols for plankton sampling. Each state representative gave an overview of their programs then discussed methodologies and protocols of the SEAMAP

Plankton sampling. The work group agreed to change and/or start using the following protocols:

- Comparison of sampling techniques indicated a difference in the way neuston tows are timed. The most recent version of the SEAMAP Field manual states that, "Start time occurs when the gear is in the water, half submerged and is fishing properly. End time occurs when the net is out of the water." The wording was modified to read: "Start time occurs when the gear is in the water and the net is fishing properly. End time occurs when the net is out of the water." J. Shultz stated that the key thing to remember is that neuston tow time begins when the neuston net is upright and fishing at the targeted depth, i.e., 0.5 m. She wanted everyone to please try to achieve correct fishing configuration as soon as possible so as to minimize water flow through the net prior to 'official' start of tow.

- As for the depth of a neuston tow, J. Shultz wanted everyone to please continue (or for some to begin) to write 0.5 m on the field data sheets for beginning and end depths. One meter will have to be entered in the current DMS database system, but the new Oracle based system will accept a decimal entry. The entire database will be revised later to reflect the 0.5 targeted neuston fishing depth.

- J. Shultz asked everyone to please begin keeping closer scrutiny of flowmeter performance during each cruise by using a Flowmeter Performance Tracking form. Use either the one that was distributed or develop your own. Using this form has helped NMFS reduce the number of flowmeter reading errors. Please send a copy of the form to NMFS with the Ichthyoplankton Field data (station) sheets. This will help during final data verification and editing and using a flowmeter tracking form will help find, correct and prevent most flowmeter errors.

- J. Shultz asked everyone to please begin noting on Field data sheets (if this has not been done already) the preservation protocol used for each bongo and neuston sample, i.e., what the initial and final preservatives were. J. Shultz asked everyone to begin using the convention 10 % formalin-> 95% ethanol for the standard SEAMAP preservation scenario. When samples are preserved for otolith work, use the notation 95% ethanol-> 95% ethanol. The new SEAMAP database system has a field for this important information that will be entered as a two digit code. It will not be necessary to record the date and time of transfer to final preservative. J. Shultz asked everyone to please try to adhere to the SEAMAP protocol of sample transfer after 48 hours. Let her know if this is an unrealistic time frame.

- J. Shultz asked everyone to please remember to mail copies of the Ichthyoplankton Field data sheets to NMFS either at the end of each cruise or at the end of the field season.

- J. Shultz stated she will distribute any information she receives from Mark Benfield regarding the inexpensive TDR (depth recorders), as well as any information on electronic archival of entire samples for future zooplankton work.

- J. Shultz asked everyone to please spell out the entire vessel name on sample labels; remember to not let the bongo net 'settle' at the maximum depth of tow. J. Shultz asked everyone to please begin haul back as soon as max depth has been reached. Please use the latest SEAMAP

Field Manual. An updated copy can be obtained by contacting Alonzo.N.Hamilton@noaa.gov.

Council Request for SEAMAP Larval Fish Distribution Maps

J. Rester informed the Subcommittee that Wayne Swingle, Executive Director of the Gulf of Mexico Fishery Management Council requested the SEAMAP Subcommittee provide data and/or maps of larval fish distributions to be used for their essential fish habitat work. R. Leard stated they not only want the larval distributions, but life history stages of all species that the Council manages. The Subcommittee agreed that this would be an excellent opportunity to publicize the SEAMAP program and directed J. Rester to work with the Council and their contractors to provide the information they need. **M. Leiby moved to give all possible assistance to the Council in as timely a manner as possible. R. Waller seconded, and it passed unanimously.**

Mexican Participation in SEAMAP Sampling

T. Cody informed the Subcommittee that Mexico is interested in developing a program similar to SEAMAP and asked the Subcommittee if they would be interested in working with Mexican biologists on this. The Subcommittee agreed to invite the appropriate personnel from Mexico to the Joint SEAMAP Meeting to discuss this. This issue will be discussed at the Gulf and Joint meeting if there is Mexican participation. J. Rester will work with R. Leard, T. Cody and P. Choucair in contacting the appropriate people and inviting them to the meeting. J. Rester stressed the importance of finalizing this ASAP because additional hotel accommodations will have to be made.

New SEAMAP Data Entry System

M. Leiby informed the Subcommittee that they have made quite a few revisions to their data entry system and are proposing to assist NMFS Pascagoula by developing a system for everyone to use. He said the system is still DOS based, but they are trying develop a program that would work online. He said they have developed a system to help eliminate some of the errors and lower the amount of man hours involved in entering the data, but there is still a backlog of problems. He asked how the other states feel about adopting a centralized or more standardized system for data entry. M. McDuff stated they will have to give all the information to their programmer to estimate the costs of developing a new system and then determine if it would be cost effective to change. After discussion, **R. Waller moved to investigate this further. T. Cody seconded, and it passed unanimously.** M. Leiby and M. McDuff will further report on this at the August meeting.

2002 Real Time Data

J. Rester reported that the GMFMC voted not to have the Texas Closure this year. If this is approved by NMFS this will be the first time in 22 years for not having the closure. R. Leard asked if the Subcommittee will want to distribute real time data if they do not have the closure. After discussion, the Subcommittee agreed to take no action. The real time data distributed is not used just for analyzing the Texas Closure, but is an annual data distribution function of SEAMAP.

Other Business

J. Rester informed the Subcommittee that the information for the SEAMAP Joint Annual Meeting in San Antonio was e-mailed a month ago and to please make reservations. He will follow up on inviting Mexican biologists to participate.

The Subcommittee agreed to continue distributing an end of season red snapper report.

B. Pellegrin presented results on the catch rate analysis between the NOAA Ships OREGON II and the GORDON GUNTER. He reviewed the analytical approach, models, procedures and surveys that were used for the analysis. The results of the analysis showed that there are no significant differences between the vessels. A complete copy of the presentation is available from the GSMFC.

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

SEAMAP Subcommittee Meeting
MINUTES
San Antonio, Texas
August 7-8, 2002

Call to Order

Chairman Jim Hanifen called the meeting to order at 8:37 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
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Paul Choucair, TPWD, Corpus Christi, TX
Joanne Lyczkowski-Shultz, NMFS, Pascagoula, MS
Steve Heath, ADCNR/MRD, Gulf Shores, AL

Others:
Mark McDuff, NMFS, Pascagoula, MS
Pam Fuller, USGS, Gainesville, FL
Jeff Jenner, NOAA, SSC, MS

Staff:
Ron Lukens, Assistant 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

J. Shultz moved to adopt the agenda as submitted. R. Waller seconded, and it passed unanimously.

Approval of Minutes

R. Waller moved to approve the March 19, 2002 minutes as submitted. J. Shultz seconded, and it passed unanimously.

Administrative Report

J. Rester reported the NMFS portion of the Reef Fish Survey took place from April 2 through May 31. Three hundred twenty-four sites were sampled using trap videos and fish traps. J. Rester reported that the Spring Plankton Survey took place from April 18 through May 31. One hundred sixty-seven stations were sampled from the west Florida shelf to the Louisiana/Texas border. This

was the twenty-first year for the survey. J. Rester stated that the Summer Shrimp/Groundfish Survey took place from June 3 through July 17. This was the twenty-first year for this survey, also. Real-time shrimp data were produced from the survey. Catches of shrimp and finfish were reported weekly from the survey, and plots and catch rates were distributed to approximately two hundred interested individuals. The plots were also available on the Commission web site. He stated that the 2000 Environmental and Biological Atlas of the Gulf of Mexico was completed and distributed in CD-ROM format. A significant cost savings was realized even though two CD-ROMs were distributed. The CD-ROM cost $3.03 to produce and shipping was $1.58 per CD-ROM. The total production cost was $607.86 plus $316.00 shipping. He reported this was a significant savings over the printed version of the Atlas that was produced in the past. J. Rester stated that he participated in the Mississippi Summer Shrimp/Groundfish Survey. He took photos and videoed SEAMAP operations for use in the CD-ROM version of the Atlas.

Summary of 2002 Distribution of Shrimp Real-Time Data

J. Rester reported the real-time data was distributed for seven weeks this summer to approximately 200 individuals and it was also available on the Commission web site. He said no comments were received on the real time data. He asked for suggestions on advertising that this data is available. It was suggested to contact the various fish organizations and ask them to let their people know this data is available. The Subcommittee also asked J. Rester to contact each of the states and ask if a sign can be put up where they sell shrimp licenses to contact the GSMFC office if anyone is interested in receiving the data. He should also ask the states to put links on their web pages to the real time data.

R. Waller reported Mississippi attempted to do the Spring Plankton survey but it did not go well. He said several fronts were in the Gulf when they were sampling for bluefin tuna larvae so they were unable to obtain a lot of samples.

Status of FY2003 Budget

J. Shultz reported that it appears SEAMAP will be level funded at $1.4 million. She said this is the Senate mark that they do not have the House mark yet but they believe they will also level fund SEAMAP.

Discussion on 2000 Atlas

J. Rester stated that as he reported previously, the SEAMAP 2000 Atlas was distributed in CD-ROM format. The mailing consisted of an executive summary, folder and the CD-ROM. He asked the Subcommittee if they were satisfied with this format and asked for suggestions to improve future atlases. The Subcommittee liked the new format and instructed J. Rester to continue this for the future atlases. It was suggested to put previous atlases on the next CD-ROM and the data from each Atlas. After discussion, the Subcommittee decided not to put the data on the Atlas but a statement saying the data is available through the GSMFC website.

Activities and Budget Needs for FY2003

Florida - M. Leiby reported Florida should be able to continue SEAMAP activities this coming year with level funding of $121,340.

Alabama - S. Heath said Alabama should be able to continue SEAMAP activities this coming year with level funding, but he may request the additional $20,000 that is available for next year. Level funding for Alabama is $68,000.

Mississippi - R. Waller said Mississippi will also continue at level funding of $118,495, but if the $20,000 is available he would like to install an onboard computer system on the R/V TOMMY MUNRO. The Subcommittee will discuss this after all of the states report.

Louisiana - J. Hanifen reported Louisiana will continue SEAMAP activities at level funding of $135,200 for 2003. He said the R/V PELICAN is getting a major overhaul and charter rates will increase.

Texas - P. Choucair said Texas will also continue at level funding at $58,804.

GSMFC - J. Rester stated the GSMFC will continue at level funding which is $90,564.

Each component reiterated the need for more funding to continue SEAMAP activities. Personnel and charter costs rise each year and it is getting harder to continue the surveys at level funding. J. Rester said there is an additional $20,000 available that the Subcommittee agreed to rotate from year to year. Alabama is in line for it so the Subcommittee needs to decide what should be done with the funding. This will be discussed later on the agenda.

Coordinated Fishery Independent Data Collection

D. Donaldson said this item will be discussed at the joint meeting because it affects all three components. He said that in May the three SEAMAP component's coordinators and chairpersons met to discuss the coordination of fishery independent data collection and utilizing SEAMAP as the structure or lead for the program. The group developed goals and objectives for the program which will be discussed at the joint meeting.

Providing Access to the SEAMAP Database: Metadata and Gateways

Jeff Jenner, the Gulf of Mexico Liaison Officer of the National Coastal Data Development Center (NCDDC) at the Stennis Space Center gave a presentation to the Subcommittee on SEAMAP database activities. He said the office officially opened in April 2002. The mission of the NCDDC is to work closely with Federal, State, and local government agencies, academic institutions, nonprofit organizations, and the private sector to provide for the archive of and access to long-term coastal databases. They do not plan to be an archive center to store data, although they will have the ability to store some data to provide access to it. He reviewed the organizational structure of the center and stated that they report to the National Oceanographic Data Center, but will probably be

independent once they grow to a certain level. The challenge of coastal data is the diversity compared to deep ocean data or geophysical data. Another challenge is the distribution of coastal data. He said it is not practical to believe they can get all the coastal data that are held by all organizations, but the center's goal is to use modern technology that is available to discover data and make it accessible. The approach the center will use to deal with the diversity and distribution of the data will be to use the information technology infrastructure, regional liaison officers and "partnership" projects. He said the SEAMAP database has been identified as the #1 priority data set for a fish habitat pilot project. They will hire a contractor to develop static and dynamic metadata and to write a plan for geospatially enabling the database. He then reviewed each step of the plan and the time line they plan to use in this process. A complete copy of J. Jenner's report is available through the GSMFC office.

Information About the Harte Research Institute for Gulf of Mexico Studies

P. Choucair reported that unfortunately, the Mexican representative was unable to attend this meeting. He said the Harte Research Institute had agreed to pay his travel, but he had a conflict. He reminded the Subcommittee that Mexico is interested in SEAMAP protocols and data base. P. Choucair has talked with the Mexican representative and will keep the Subcommittee apprized of their progress.

P. Choucair then presented information on the Harte Research Institute (HRI). He stated Dr. Wes Tunnell is the Associate Director and the Director of the Center for Coastal Studies. He said Mr. Ed Harte started the institute in September 2000 with an endowment of $46 million. That will provide for six chairs from the Gulf of Mexico, 12 graduate research assistant ships, and the operating budget. The institute wants to "make a difference" and contribute to Gulf of Mexico research. The Texas legislature provided $15 million to build a building for the institute. They also have an annual $300,000 special item funding for the Gulf of Mexico Environmental Lab. They have advisory council members from the United States, Mexico, and Cuba. Representatives from the HRI have met with researchers from around the Gulf to find out what type of research is being done, the available data, and to inquire about research needs.

The members developed an emerging mission statement which is "to create an institute that will provide an atmosphere for success in discovery, understanding, and conservation of the Gulf of Mexico." In addition to the mission statement, other elements being considered for addition to the HRI mission are: characterized by excellence and innovation; disseminate and communicate Gulf of Mexico knowledge to the scientific community, natural resource managers, and the general public; encourage long-term sustainability of the Gulf of Mexico; to play a leadership role in cooperation and collaboration with other Gulf partners; and actively participate in efforts leading to positive economic impact. Potential gulf-wide beneficial and achievable research projects will be to conduct Gulf of Mexico topographic highs projects (reefs and banks); document biodiversity of the Gulf of Mexico; develop a relational database for the Gulf of Mexico; create a Gulf of Mexico marine GIS; and help publish a book on the Gulf of Mexico. The main priority of the HRI at this time is to create a website with a directory of all scientists and their activities in the Gulf of Mexico. P. Choucair said HRI could provide SEAMAP some advertisement, which would help in obtaining funding. He said it may be possible to develop collaboration and to jointly receive funding for software, platforms,

equipment, etc. After discussion, the Subcommittee agreed to invite a representative from HRI to give a presentation at the October meeting and maybe have a SEAMAP representative or a Gulf representative present at one of HRI's upcoming meetings. The Subcommittee asked P. Choucair to give the appropriate personnel copies of the SEAMAP Marine Directory for their use. A copy of P. Choucair's presentation is available at the GSMFC office.

Collecting Fish Tissue for Mercury Sampling

R. Lukens distributed information on collecting fish tissue for mercury sampling. He said Governor Riley Boykin Smith from Alabama gave the Commission a presentation on the state of Alabama's concern about mercury in marine fish. R. Smith then asked the GSMFC, in cooperation with the appropriate state and federal agencies, to encourage and facilitate the development of a gulf-wide survey to collect fish tissue for mercury analysis. R. Lukens said the survey will collect tissue from species commonly consumed by the public from commercial and recreational anglers. R. Lukens then discussed the draft recommendations the GSMFC is proposing to collect fish tissue. He said they are planning to use the FIN Program to collect samples and asked if SEAMAP and the individual state fishery independent programs would be willing to cooperate in collecting samples, also. This would not require new surveys. He is proposing to use existing surveys to collect extra samples for mercury testing and provide funding to defray costs, i.e., extra personnel, equipment, etc. He then reviewed the methodology they plan to use and other parts of the proposed program. The Subcommittee asked what funding sources he will be seeking. R. Lukens answered that funding would come from Congress. The Subcommittee suggested also seeking funding from the offshore oil industry and MMS. The Subcommittee agreed to cooperate if funding is available to help defray costs. R. Lukens will keep the Subcommittee informed.

Early Detection Exotic Species Sampling

R. Lukens stated he is an ex-officio member of the Aquatic Invasive Species Task Force, which is a legislatively established task force, that has the responsibility of dealing with nonnative and invasive species. He said SEAMAP can play an important role in the future of early detection and monitoring for invasive species. He asked the Subcommittee to please instruct their field people to flag nonnative or invasive species in their database and send the samples to him. The Subcommittee agreed to do this and R. Lukens will work with J. Rester and M. McDuff on how this can be entered and queried in the database.

The Meeting adjourned at 12:03 p.m.

The SEAMAP Gulf reconvened Thursday, August 8, 2002 at 8:40 a.m.

New SEAMAP Data Entry Program

M. Leiby reported that the archiving center had been having problems with the data entry program because it was a dBASE system and it led to a lot of errors. He said they spent an inordinate amount of time manually proofing the data, looking for typographical errors that inevitably occur whenever a large amount of data is being entered, and it was getting very frustrating. There were also problems

with the biocodes that he explained previously, so they created an entry system in Visual Basic. He explained how the program works and stated that basically, once the data is entered and proofed, it does not have to be re-entered ever again. The catalog numbers are also automatically incremented. He said the new system has increased their productivity enormously. He said they are also working on improving the data entry from the cruise stand point and M. McDuff will help with that.

New SEAMAP Real-Time Data Entry program

P. Choucair said that when he joined SEAMAP, Texas was at the beginning of the real- time data surveys. He wrote a data entry program in Microsoft Access because he had a problem going to a MS-DOS prompt to enter data. He then gave a demonstration on how Texas now enters their real-time data. He said the program reduces key strokes and checks for errors. The Subcommittee asked if all the states could use this program. He said for each state to send him their default values and he will incorporate them into the program for each state. The Subcommittee asked J. Rester if he had any problems with the new program in running the real-time data for distribution and he said that it worked fine. The Subcommittee asked P. Choucair to also adapt the program for the red snapper data that will be distributed at the end of the year.

Preparation of Cooperative Agreements

The Subcommittee reviewed changes to the Operations Plan and NMFS portion of the Cooperative Agreement. Final changes should be sent to J. Rester before August 15. A final copy will be mailed to the Subcommittee after all changes are incorporated.

Continuation of Activities and Budget Needs for FY2003

The Subcommittee discussed distributing the $20,000 that Florida had in their budget the previous two years. As stated before, Alabama is in line for the money but S. Heath said that if the money could be use to install an onboard computer system on the R/V TOMMY MUNRO, it can be used for that and Alabama will use the extra money the following year. M. McDuff will investigate the price of the computers and installing the computers and the Subcommittee will have a final discussion on this topic via conference call after September 10. M. Leiby stated that if he is not available for the conference call, J. Hanifen has his proxy. J. Rester will contact the Subcommittee and set up the conference call when it is convenient for everyone.

Other Business

The Subcommittee asked to receive an updated email listing for the Subcommittee.

M. McDuff will demonstrate the Data Management System at the October meeting.

J. Hanifen reminded the members to contact their state directors to try to get more funding for SEAMAP.

There being no further business, the meeting adjourned at 9:45 a.m.

APPENDIX B

2003 SEAMAP OPERATIONS PLAN

SEAMAP-GULF OF MEXICO

OPERATIONS PLAN

January 1, 2003 - December 31, 2003

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 2002, 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, 2003 through December 31, 2003. 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 2003 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 m^2 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 ½ 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, 2003 to December 31, 2003:

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 2003:

(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 2003 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 2003 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 Romaire
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 Romaire, Leader
Louisiana Department of Wildlife and Fisheries

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Mark Van Hoose
Alabama Department of Conservation and
Natural Resources

National Marine Fisheries Service
Pascagoula Laboratory

Kim Williams
Florida Fish and Wildlife Conservation
Commission

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

Ken Edds
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

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

Mark Benfield
Louisiana State University

Sara LeCroy, Curator
SEAMAP Invertebrate Plankton Archiving
Center (SIPAC)
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

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

Larry McEachron
Texas Parks and Wildlife Department

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

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

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Richard Kasprzak
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Jim Duffy
Alabama Department of Conservation and Natural Resources

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
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

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.

TABLE OF CONTENTS

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 1985-2002 (October 1 through September 30). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY2002 were handled through State/Federal cooperative agreements, administered by SERO and the Southeast Fisheries Science Center (SEFSC), National Marine Fisheries Service (NMFS).

In FY2002, SEAMAP operations continued for the twenty-first consecutive year. SEAMAP resource surveys included the Fall Plankton Survey, Fall Shrimp/Groundfish Survey, Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Reeffish Survey, and plankton and environmental data surveys. Other FY2002 activities included SEAMAP information services and program management.

This report is the nineteenth 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 FY2002 and proposed SEAMAP activities for FY2003.

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

FY2002 SEAMAP RESOURCE SURVEYS

Resource survey information continued for the twenty-first 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 1986-2000 covered Gulf waters from Florida Bay to Brownsville, Texas. The Fall

Plankton cruise took place from August 28, 2001 through December 5, 2001. Florida, Alabama, NMFS, Mississippi, and Louisiana sampled 171 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 10 - December 13, 2001, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm, covering 334 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 49 stations was sampled

with bongo and/or neuston nets, as encountered along cruise tracks. NMFS completed 46 ichthyoplankton stations, Mississippi completed 2 stations, and Louisiana completed 7 stations. The Polish Sorting and Identification Center will sort the samples, except those taken by Louisiana. 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 April 18, 2002 through May 31, 2002. One hundred sixty-seven stations were sampled from the west Florida shelf to the Louisiana/Texas border. This was the twenty-first 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 will be transshipped to the Polish Sorting and Identification Center. Left bongo samples will be 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 sampling April 2 through May 31, 2002. Three hundred twenty-four sites were sampled using trap videos and fish traps.

Summer Shrimp/Groundfish Survey

During the spring of 2002, 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 2002 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 entire survey occurred from June 3 through July 17, 2002. This was the twenty-first year for the survey.

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 1982-2001 have been entered into the system and data from 2002 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 252 SEAMAP data requests have been received. In most instances, requests were filled promptly. To date, 248 requests have been completed. During this reporting period, 13 requests were received.

Requested SEAMAP data were used for a multitude of purposes in 2002:

- 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 2002 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 2002 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.

Data from the 2001 Fall Shrimp/Groundfish Survey were used to produce red snapper real-time plots. These plots described research trawl effort and catch rates for juvenile red snapper during the Survey. This was the fourth year the plots were produced and distributed to interested individuals.

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. For 2002, 30,492 samples were returned from the Polish Sorting and Identification Center. Data entry for sorted samples is being completed in the new Oracle format of the SEAMAP DMS. The 34,725 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 both specimen loans and requests for associated plankton survey data. Ninety-nine requests have been accommodated this year to nine different researchers at both the state and federal level, and one Florida high school.

SEAMAP Invertebrate Plankton Archiving Center

The SIPAC is in its eighteenth year of operation. Sara LeCroy at the USM/COMS/GCRL currently serves as 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 graduate student previously employed by SIPAC graduated during the previous year and has been replaced by another student assistant this year. This person assists 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 542 additional bongo net samples (12 from year 1997 plankton cruises; 269 from year 2000 plankton cruises; 261 from year 2001 plankton cruises). In addition, approximately 180 bongo samples were returned to the NMFS laboratory in Pascagoula, Mississippi, for further analysis and

the collections were reorganized to allow more space for incoming samples. The number of samples currently cataloged in the SIPAC collections is 8,151, 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 their original volume and placed into 100 ml vials, as necessary. When possible, the remaining 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 to the removal of approximately 180 samples to the NMFS - Pascagoula during the current year, there is presently sufficient space available for additional samples to be deposited into the SIPAC archives without continuing the aliquoting of 1988-1991 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 2001 and March 2002, in conjunction with the Annual Meetings 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 2002 to discuss respective program needs and priorities for FY2003.

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 2002. 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:

- *2002 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, 2000 to September 30, 2001.* 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, 2001 to September 30, 2002.* A summary of FY2002 activities and proposed FY2003 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.

- *Environmental and Biological Atlas of the Gulf of Mexico, 2000.* A compilation of information obtained from the 2000 SEAMAP survey including catch rates of shrimp and finfish, abundance and distribution of plankton in the Gulf of Mexico and environmental data from all surveys.

Proposed 2003 Activities

Preliminary 2003 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 $1.4 million. At the August meeting, the SEAMAP components based their allocations on level funding for 2003. At this level, the share to be allocated for SEAMAP-Gulf activities (including GSMFC) will be $612,403.

Proposed 2003 activities for all Gulf participants are shown in Table 4. The approved 2003 Operations Plan for SEAMAP-Gulf is contained in Appendix B.

FY2002 Financial Report

Total allocations for FY2002 program administration were $90,564. 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, 2002.

TABLE 1.

SEAMAP REPRESENTATIVES FOR FY2002

James G. 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 Marine Research Institute

Paul Choucair
Texas Parks and Wildlife Department

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

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

TABLE 2.

SEAMAP WORK GROUP MEMBERS FOR FY2002

ADULT FINFISH WORK GROUP
Terry Henwood, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
Texas Parks and Wildlife Department

Mark Leiby
Florida Fish and Wildlife Conservation Commission

John Roussel
Louisiana Department of Wildlife and Fisheries

Robert Shipp
University of South Alabama

Rick Leard
Gulf of Mexico Fishery Management Council

James Warren
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
Mark McDuff, Leader
SEAMAP Data Manager
National Marine Fisheries Service
Pascagoula Laboratory

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

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

Terry Romaire
LA Department of Wildlife and Fisheries
Environmental Data Work Group

Jim Hanifen
LA Department of Wildlife and Fisheries
SEAMAP Chairman

ENVIRONMENTAL DATA WORK GROUP

Terry Romaire, Leader
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

Rob Ford
National Marine Fisheries Service
Pascagoula Laboratory

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Kim Williams
Florida Fish and Wildlife Conservation Commission

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

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

Ken Edds
Louisiana Department of Wildlife and Fisheries

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

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

Mark Benefield
Louisiana State University

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

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Larry McEachron
Texas Parks and Wildlife Department

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

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

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Richard Kasprzak
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Jim Duffy
Alabama Department of Conservation and Natural Resources

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
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 2003 PROGRAMMATIC BUDGET

Alabama Department of Conservation and Natural Resources	68,000
Florida Fish and Wildlife Conservation Commission	111,340
Louisiana Department of Wildlife and Fisheries	135,200
University of Southern Mississippi/College of Marine Sciences/ Gulf Coast Research Laboratory	138,495
Texas Parks and Wildlife Department	58,804
Gulf States Marine Fisheries Commission	90,564
TOTAL	$612,403

TABLE 4.

PROPOSED SEAMAP-GULF ACTIVITIES, 2003

	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

MINUTES FOR 2001 AND 2002 SEAMAP MEETINGS

SEAMAP Subcommittee Meeting
MINUTES
New Orleans, LA
Tuesday, October 30, 2001

Call to Order

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

Members:
Kirsten Larsen (Representing Richard Waller), USM/CMS/GCRL, Ocean Springs, MS
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Jim Hanifen, LDWF, Baton Rouge, LA
Terry Cody, TPWD, Rockport, TX
Joanne Lyczkowski-Shultz, NMFS, Pascagoula, MS
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Rick Leard, GMFMC, Tampa, FL

Others:
Vernon Minton, ADCNR/MRD, Gulf Shores, AL
Scott Nichols, NMFS, Pascagoula, MS
Mark McDuff, NMFS, Pascagoula, MS
Kevin Rademacher, NMFS, Pascagoula, MS
Page Campbell, TPWD, Rockport, TX
Dale Hall, USFWS, Atlanta, GA
William "Corky" Perret, MDMR, Biloxi, MS
Marty Bourgeois, LDWF, Baton Rouge, LA
Paul Choucair, TPWD, Rockport, TX
Mike Spranger, FLSG, Gainesville, FL
Michelle Kasprzak, LDWF, Baton Rouge, LA
Betty Hutcherson, LDWF, Baton Rouge, LA
Terry Romaire, LDWF, Baton Rouge, LA
Marsha Strong, LDWF, Baton Rouge, LA
Jason Duet, LDWF, Baton Rouge, LA
Jan Bowman, LDWF, Baton Rouge, LA
Edward Belden, LDWF, Baton Rouge, LA
Lisa Bare, LDWF, Baton Rouge, LA
Isis Longo, LDWF, Baton Rouge, LA

Staff:
Ron Lukens, GSMFC, Ocean Springs, MS
Dave Donaldson, GSMFC, Ocean Springs, MS
Jeff Rester, GSMFC, Ocean Springs, MS
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

T. Cody moved to adopt the agenda as submitted. J. Shultz seconded, and it passed unanimously.

Approval of Minutes

J. Shultz moved to approve the August 8, 2001 minutes as submitted. M. Leiby seconded, and it passed unanimously.

Administrative Report

J. Rester reported the annual SEAMAP report to the TCC was completed and distributed. The SEAMAP Management Plan for 2001-2005 has been received from the printer. The Environmental Data Work Group is still waiting for the National Coastal Data Development Center to issue their request for proposals. The RFP was to have been issued October 1, but because of the terrorist attacks on September 11, this date has been delayed until November. The SEAMAP database public view was completed. Public users of the SEAMAP database now see a limited list of variables when querying the database. He has also been working on the help section for the SEAMAP database. The help section will guide users through the intricacies of using Business Objects to query the database. The help section will be completed in the near future. The Fall Plankton Survey started on August 28.

Fishery Independent Sampling in Louisiana

M. Bourgeois made a presentation on the Louisiana Department of Wildlife and Fisheries Fishery-Independent Monitoring Program. He reviewed the objectives, species, areas, and gears used in the monitoring program. A copy of the presentation is available from the GSMFC office.

NMFS Reef Fish Survey

K. Rademacher reported that in 1995 the SEAMAP Reef Fish Work Group sponsored a workshop to formulate recommendations and guidance for both SEAMAP and NMFS in developing a survey design for sampling reef fish, particularly red snapper, on the oil and gas platforms in the Gulf of Mexico. He reviewed the objectives, methodology, and results of the study with the Subcommittee. A copy of the presentation is available from the GSMFC office.

K. Radenmacher then gave an update on the NMFS reef fish program. He said they have been conducting a reef fish survey utilizing a trap video methodology from 1992 until 1997. He said because of lack of funding and/or ship time they did not conduct the survey in 1998-2000. The survey started again in 2001. He said they switched from 8 millimeter cameras to digital video cameras and improved the camera array to a full mesh covering to help prevent it from getting hung up on the bottom. Other improvements have also been made to the camera array to make it more accessible to the ROV and the tape reading methodology also underwent changes.

Coordinated Fishery Independent Activities

D. Donaldson reported that in March of 1999 the Commission charged staff with developing coordinated fishery independent data activities. Obviously, SEAMAP is a major contributor to that, but there are other fishery independent data activities going on in the Gulf, South Atlantic and Caribbean. The FIN discussed this at their last meeting and decided that a program needs to be developed similar to FIN/ACCSP and the purpose should be to provide fishery-independent data in compatible formats, develop goals and objectives, develop necessary minimum data elements, develop a data management system, and identify issues and problems and then develop solutions. He said SEAMAP should be a major component of the coordinated program and needs to convene a meeting of all partners involved in fishery-independent activities. He said at this meeting the Subcommittee should develop goals and objectives and work with the Atlantic and Caribbean components. He said ASMFC agrees with this approach and wants SEAMAP to take the lead

After discussion of D. Donaldson's presentation, M. Leiby moved that the chairmen and vice chairmen of the three SEAMAP components meet and use the NEAMAP outline as a starting point to explore what is available and what is needed to start this program. T. Cody seconded it and it passed unanimously. D. Donaldson stated that funds are available to hold this meeting.

2000 SEAMAP Data Atlas

J. Rester asked the Subcommittee for comments on the 1999 SEAMAP data atlas that was in CD-ROM format. The Subcommittee agreed the CD-ROM worked fine. J. Rester then reviewed cost comparisons of the CD-ROM and the printed version. The CD-ROM costs significantly less to produce. **After discussion, J. Shultz moved to produce future atlases exclusively in digital format. M. Leiby seconded it and it passed unanimously**. The Subcommittee decided the CD-ROM should be mailed with an executive summary in a folder or with a special cover/holder in 8½ x 11 format. The color of the holder should change every year as with previous atlases. In addition to the executive summary, an instruction sheet should also be included and it should be made clear how to print the atlas if someone wants a printed version. J. Rester then asked the Subcommittee to please take photographs and videos on all of the cruises and he will incorporate them into future atlases and presentations. He will also participate in as many cruises as possible to take photographs and videos as well.

Changes to the SEAMAP Database

J. Rester reported that he and Mike Sestak with GSMFC have been working on the database with M. McDuff and S. Nichols. He said M. Sestak is trying to translate the database into Business Objects software so the database may be viewed via the web. He has made several changes over the past few months and wants to know if NMFS has plans for other changes to the database. M. McDuff stated that the database will never be final it will always have changes as new programs are started. He said immediate changes will be made to the ichthyoplankton and environmental sections and they will continue to work with M. Sestak on future changes. They are also working on standardizing all of the cruise information. He also noted that SAS and ORACLE works well together so they have not had any major problems with that.

Election of Chairman

T. Cody moved to nominate J. Hanifen for Chairman and S. Heath for Vice Chairman and asked the nominations be accepted and elected by acclamation. M. Leiby seconded and it passed unanimously.

Other Business

J. Shultz informed the Subcommittee that the Plankton Work Group and other key field people need to meet to discuss data problems. It was also suggested that the Shrimp/Groundfish Work Group meet before going to sea. The Subcommittee asked J. Rester to see if funding is available and to inform the Subcommittee so arrangements can be made for the meetings.

T. Cody asked M. McDuff if there is a need for an updated version of the SEAMAP codes and protocols. M. McDuff said the data entry system will change in that they are moving towards multiple ways of entering data. He will keep the Subcommittee informed as these changes are made. S. Nichols informed the Subcommittee that both state and federal data were used in the last stock assessments.

There being no further business, the meeting adjourned at 11:35 a.m.

SEAMAP Subcommittee Meeting
MINUTES
Biloxi, MS
March 19, 2002

Call to Order

Chairman Jim Hanifen called the meeting to order at 8:34 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
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Terry Cody, TPWD, Rockport, TX
Joanne Lyczkowski-Shultz, NMFS, Pascagoula, MS
Steve Heath, ADCNR/MRD, Gulf Shores, AL
Rick Leard, GMFMC, Tampa, FL

Others:
Kim Williams, FWC/FMRI, St. Petersburg, FL
Greg Boland, MMS, New Orleans, LA
Michelle Kasprzak, LDWF, Baton Rouge, LA
Michael Brim, USFWS, Panama City, FL
Kirsten Larsen, USM/CMS/GCRL, Ocean Springs, MS
Pam Bond, NOAA/NMFS, Pascagoula, MS
Tut Warren, USM/CMS/GCRL, Ocean Springs, MS
Connie Cowan, NOAA/NMFS, Pascagoula, MS
Alonzo Hamilton, NOAA/NMFS, Pascagoula, MS
Butch Pellegrin, NOAA/NMFS, Pascagoula, MS
Denice Drass, NOAA/NMFS, Pascagoula, MS
Scott Nichols, NOAA/NMFS, Pascagoula, MS
David Hanisko, NOAA/NMFS, Pascagoula, MS
David Yeager, MBNEP, Mobile, AL
Joe O'Hop, FWC/FMRI, St. Petersburg, FL
Mike Buchanan, MDMR, Biloxi, 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
Jeff Rester, SEAMAP/Habitat Program Coordinator, GSMFC, Ocean Springs, MS
Cheryl Noble, Staff Assistant, GSMFC, Ocean Springs, MS

Adoption of Agenda

Under Other Business, B. Pellegrin will present the results of the Comparative Tow Survey, the Joint Meeting will be discussed, and Item No. 5 will be changed to Item No. 3. **T. Cody moved to adopt the agenda with these changes. J. Shultz seconded, and it passed unanimously**.

Fishery Independent Sampling in Mississippi

M. Buchanan gave a presentation on *Independent Fisheries Data Collection in Mississippi*. He reviewed the concept, history, sampling stations, gear, species, and data uses of the program. He said the focus on future programs will be on species with little data available. A complete copy of the presentation is available through the GSMFC office.

Approval of Minutes

R. Waller moved to approve the August 8, 2001 minutes as submitted. J. Shultz seconded, and it passed unanimously.

Administrative Report

J. Rester reported the Fall Plankton cruise took place from August 28 through December 5, 2001. Florida, Alabama, Mississippi, Louisiana, and the National Marine Fisheries Service sampled 171 stations on the west Florida shelf and northern Gulf of Mexico.

The Fall Groundfish Cruise took place from October 10 through December 13, 2001. Alabama, Mississippi, Louisiana, Texas and the National Marine Fisheries Service sampled 334 trawl stations and 49 plankton stations during the survey. Data from the survey were used to produce the 4th annual red snapper real-time plots. The plots are available on the GSMFC web site.

The 1999 SEAMAP Marine Atlas was produced and distributed in February 2002.

The SEAMAP Plankton Work Group met this past week and J. Shultz will give a presentation on the meeting results.

Mark McDuff met with Mike Sestak (GSMFC Staff) to develop relationships between the SEAMAP database and Business Objects software. M. Sestak is in the process of creating a public view of the database to access over the internet.

A conference call was held in February between the coordinators of the three SEAMAP components to discuss fishery independent sampling. They will meet in Tampa in May 2002 to further discuss this issue and develop goals and objectives to discuss at the August meeting.

Summary of the Plankton Work Group Meeting

J. Shultz reported there were 19 attendees at the Plankton Work Group Meeting. She said they have not met in over 10 years to discuss protocols for plankton sampling. Each state representative gave an overview of their programs then discussed methodologies and protocols of the SEAMAP

Plankton sampling. The work group agreed to change and/or start using the following protocols:

- Comparison of sampling techniques indicated a difference in the way neuston tows are timed. The most recent version of the SEAMAP Field manual states that, "Start time occurs when the gear is in the water, half submerged and is fishing properly. End time occurs when the net is out of the water." The wording was modified to read: "Start time occurs when the gear is in the water and the net is fishing properly. End time occurs when the net is out of the water." J. Shultz stated that the key thing to remember is that neuston tow time begins when the neuston net is upright and fishing at the targeted depth, i.e., 0.5 m. She wanted everyone to please try to achieve correct fishing configuration as soon as possible so as to minimize water flow through the net prior to 'official' start of tow.

- As for the depth of a neuston tow, J. Shultz wanted everyone to please continue (or for some to begin) to write 0.5 m on the field data sheets for beginning and end depths. One meter will have to be entered in the current DMS database system, but the new Oracle based system will accept a decimal entry. The entire database will be revised later to reflect the 0.5 targeted neuston fishing depth.

- J. Shultz asked everyone to please begin keeping closer scrutiny of flowmeter performance during each cruise by using a Flowmeter Performance Tracking form. Use either the one that was distributed or develop your own. Using this form has helped NMFS reduce the number of flowmeter reading errors. Please send a copy of the form to NMFS with the Ichthyoplankton Field data (station) sheets. This will help during final data verification and editing and using a flowmeter tracking form will help find, correct and prevent most flowmeter errors.

- J. Shultz asked everyone to please begin noting on Field data sheets (if this has not been done already) the preservation protocol used for each bongo and neuston sample, i.e., what the initial and final preservatives were. J. Shultz asked everyone to begin using the convention 10 % formalin-> 95% ethanol for the standard SEAMAP preservation scenario. When samples are preserved for otolith work, use the notation 95% ethanol-> 95% ethanol. The new SEAMAP database system has a field for this important information that will be entered as a two digit code. It will not be necessary to record the date and time of transfer to final preservative. J. Shultz asked everyone to please try to adhere to the SEAMAP protocol of sample transfer after 48 hours. Let her know if this is an unrealistic time frame.

- J. Shultz asked everyone to please remember to mail copies of the Ichthyoplankton Field data sheets to NMFS either at the end of each cruise or at the end of the field season.

- J. Shultz stated she will distribute any information she receives from Mark Benfield regarding the inexpensive TDR (depth recorders), as well as any information on electronic archival of entire samples for future zooplankton work.

- J. Shultz asked everyone to please spell out the entire vessel name on sample labels; remember to not let the bongo net 'settle' at the maximum depth of tow. J. Shultz asked everyone to please begin haul back as soon as max depth has been reached. Please use the latest SEAMAP

Field Manual. An updated copy can be obtained by contacting Alonzo.N.Hamilton@noaa.gov.

Council Request for SEAMAP Larval Fish Distribution Maps

J. Rester informed the Subcommittee that Wayne Swingle, Executive Director of the Gulf of Mexico Fishery Management Council requested the SEAMAP Subcommittee provide data and/or maps of larval fish distributions to be used for their essential fish habitat work. R. Leard stated they not only want the larval distributions, but life history stages of all species that the Council manages. The Subcommittee agreed that this would be an excellent opportunity to publicize the SEAMAP program and directed J. Rester to work with the Council and their contractors to provide the information they need. **M. Leiby moved to give all possible assistance to the Council in as timely a manner as possible. R. Waller seconded, and it passed unanimously.**

Mexican Participation in SEAMAP Sampling

T. Cody informed the Subcommittee that Mexico is interested in developing a program similar to SEAMAP and asked the Subcommittee if they would be interested in working with Mexican biologists on this. The Subcommittee agreed to invite the appropriate personnel from Mexico to the Joint SEAMAP Meeting to discuss this. This issue will be discussed at the Gulf and Joint meeting if there is Mexican participation. J. Rester will work with R. Leard, T. Cody and P. Choucair in contacting the appropriate people and inviting them to the meeting. J. Rester stressed the importance of finalizing this ASAP because additional hotel accommodations will have to be made.

New SEAMAP Data Entry System

M. Leiby informed the Subcommittee that they have made quite a few revisions to their data entry system and are proposing to assist NMFS Pascagoula by developing a system for everyone to use. He said the system is still DOS based, but they are trying develop a program that would work online. He said they have developed a system to help eliminate some of the errors and lower the amount of man hours involved in entering the data, but there is still a backlog of problems. He asked how the other states feel about adopting a centralized or more standardized system for data entry. M. McDuff stated they will have to give all the information to their programmer to estimate the costs of developing a new system and then determine if it would be cost effective to change. After discussion, **R. Waller moved to investigate this further. T. Cody seconded, and it passed unanimously.** M. Leiby and M. McDuff will further report on this at the August meeting.

2002 Real Time Data

J. Rester reported that the GMFMC voted not to have the Texas Closure this year. If this is approved by NMFS this will be the first time in 22 years for not having the closure. R. Leard asked if the Subcommittee will want to distribute real time data if they do not have the closure. After discussion, the Subcommittee agreed to take no action. The real time data distributed is not used just for analyzing the Texas Closure, but is an annual data distribution function of SEAMAP.

Other Business

J. Rester informed the Subcommittee that the information for the SEAMAP Joint Annual Meeting in San Antonio was e-mailed a month ago and to please make reservations. He will follow up on inviting Mexican biologists to participate.

The Subcommittee agreed to continue distributing an end of season red snapper report.

B. Pellegrin presented results on the catch rate analysis between the NOAA Ships OREGON II and the GORDON GUNTER. He reviewed the analytical approach, models, procedures and surveys that were used for the analysis. The results of the analysis showed that there are no significant differences between the vessels. A complete copy of the presentation is available from the GSMFC.

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

SEAMAP Subcommittee Meeting
MINUTES
San Antonio, Texas
August 7-8, 2002

Call to Order

Chairman Jim Hanifen called the meeting to order at 8:37 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
Mark Leiby, FWC/FMRI, St. Petersburg, FL
Paul Choucair, TPWD, Corpus Christi, TX
Joanne Lyczkowski-Shultz, NMFS, Pascagoula, MS
Steve Heath, ADCNR/MRD, Gulf Shores, AL

Others:
Mark McDuff, NMFS, Pascagoula, MS
Pam Fuller, USGS, Gainesville, FL
Jeff Jenner, NOAA, SSC, MS

Staff:
Ron Lukens, Assistant 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

J. Shultz moved to adopt the agenda as submitted. R. Waller seconded, and it passed unanimously.

Approval of Minutes

R. Waller moved to approve the March 19, 2002 minutes as submitted. J. Shultz seconded, and it passed unanimously.

Administrative Report

J. Rester reported the NMFS portion of the Reef Fish Survey took place from April 2 through May 31. Three hundred twenty-four sites were sampled using trap videos and fish traps. J. Rester reported that the Spring Plankton Survey took place from April 18 through May 31. One hundred sixty-seven stations were sampled from the west Florida shelf to the Louisiana/Texas border. This

was the twenty-first year for the survey. J. Rester stated that the Summer Shrimp/Groundfish Survey took place from June 3 through July 17. This was the twenty-first year for this survey, also. Real-time shrimp data were produced from the survey. Catches of shrimp and finfish were reported weekly from the survey, and plots and catch rates were distributed to approximately two hundred interested individuals. The plots were also available on the Commission web site. He stated that the 2000 Environmental and Biological Atlas of the Gulf of Mexico was completed and distributed in CD-ROM format. A significant cost savings was realized even though two CD-ROMs were distributed. The CD-ROM cost $3.03 to produce and shipping was $1.58 per CD-ROM. The total production cost was $607.86 plus $316.00 shipping. He reported this was a significant savings over the printed version of the Atlas that was produced in the past. J. Rester stated that he participated in the Mississippi Summer Shrimp/Groundfish Survey. He took photos and videoed SEAMAP operations for use in the CD-ROM version of the Atlas.

Summary of 2002 Distribution of Shrimp Real-Time Data

J. Rester reported the real-time data was distributed for seven weeks this summer to approximately 200 individuals and it was also available on the Commission web site. He said no comments were received on the real time data. He asked for suggestions on advertising that this data is available. It was suggested to contact the various fish organizations and ask them to let their people know this data is available. The Subcommittee also asked J. Rester to contact each of the states and ask if a sign can be put up where they sell shrimp licenses to contact the GSMFC office if anyone is interested in receiving the data. He should also ask the states to put links on their web pages to the real time data.

R. Waller reported Mississippi attempted to do the Spring Plankton survey but it did not go well. He said several fronts were in the Gulf when they were sampling for bluefin tuna larvae so they were unable to obtain a lot of samples.

Status of FY2003 Budget

J. Shultz reported that it appears SEAMAP will be level funded at $1.4 million. She said this is the Senate mark that they do not have the House mark yet but they believe they will also level fund SEAMAP.

Discussion on 2000 Atlas

J. Rester stated that as he reported previously, the SEAMAP 2000 Atlas was distributed in CD-ROM format. The mailing consisted of an executive summary, folder and the CD-ROM. He asked the Subcommittee if they were satisfied with this format and asked for suggestions to improve future atlases. The Subcommittee liked the new format and instructed J. Rester to continue this for the future atlases. It was suggested to put previous atlases on the next CD-ROM and the data from each Atlas. After discussion, the Subcommittee decided not to put the data on the Atlas but a statement saying the data is available through the GSMFC website.

Activities and Budget Needs for FY2003

Florida - M. Leiby reported Florida should be able to continue SEAMAP activities this coming year with level funding of $121,340.

Alabama - S. Heath said Alabama should be able to continue SEAMAP activities this coming year with level funding, but he may request the additional $20,000 that is available for next year. Level funding for Alabama is $68,000.

Mississippi - R. Waller said Mississippi will also continue at level funding of $118,495, but if the $20,000 is available he would like to install an onboard computer system on the R/V TOMMY MUNRO. The Subcommittee will discuss this after all of the states report.

Louisiana - J. Hanifen reported Louisiana will continue SEAMAP activities at level funding of $135,200 for 2003. He said the R/V PELICAN is getting a major overhaul and charter rates will increase.

Texas - P. Choucair said Texas will also continue at level funding at $58,804.

GSMFC - J. Rester stated the GSMFC will continue at level funding which is $90,564.

Each component reiterated the need for more funding to continue SEAMAP activities. Personnel and charter costs rise each year and it is getting harder to continue the surveys at level funding. J. Rester said there is an additional $20,000 available that the Subcommittee agreed to rotate from year to year. Alabama is in line for it so the Subcommittee needs to decide what should be done with the funding. This will be discussed later on the agenda.

Coordinated Fishery Independent Data Collection

D. Donaldson said this item will be discussed at the joint meeting because it affects all three components. He said that in May the three SEAMAP component's coordinators and chairpersons met to discuss the coordination of fishery independent data collection and utilizing SEAMAP as the structure or lead for the program. The group developed goals and objectives for the program which will be discussed at the joint meeting.

Providing Access to the SEAMAP Database: Metadata and Gateways

Jeff Jenner, the Gulf of Mexico Liaison Officer of the National Coastal Data Development Center (NCDDC) at the Stennis Space Center gave a presentation to the Subcommittee on SEAMAP database activities. He said the office officially opened in April 2002. The mission of the NCDDC is to work closely with Federal, State, and local government agencies, academic institutions, nonprofit organizations, and the private sector to provide for the archive of and access to long-term coastal databases. They do not plan to be an archive center to store data, although they will have the ability to store some data to provide access to it. He reviewed the organizational structure of the center and stated that they report to the National Oceanographic Data Center, but will probably be

independent once they grow to a certain level. The challenge of coastal data is the diversity compared to deep ocean data or geophysical data. Another challenge is the distribution of coastal data. He said it is not practical to believe they can get all the coastal data that are held by all organizations, but the center's goal is to use modern technology that is available to discover data and make it accessible. The approach the center will use to deal with the diversity and distribution of the data will be to use the information technology infrastructure, regional liaison officers and "partnership" projects. He said the SEAMAP database has been identified as the #1 priority data set for a fish habitat pilot project. They will hire a contractor to develop static and dynamic metadata and to write a plan for geospatially enabling the database. He then reviewed each step of the plan and the time line they plan to use in this process. A complete copy of J. Jenner's report is available through the GSMFC office.

Information About the Harte Research Institute for Gulf of Mexico Studies

P. Choucair reported that unfortunately, the Mexican representative was unable to attend this meeting. He said the Harte Research Institute had agreed to pay his travel, but he had a conflict. He reminded the Subcommittee that Mexico is interested in SEAMAP protocols and data base. P. Choucair has talked with the Mexican representative and will keep the Subcommittee apprized of their progress.

P. Choucair then presented information on the Harte Research Institute (HRI). He stated Dr. Wes Tunnell is the Associate Director and the Director of the Center for Coastal Studies. He said Mr. Ed Harte started the institute in September 2000 with an endowment of $46 million. That will provide for six chairs from the Gulf of Mexico, 12 graduate research assistant ships, and the operating budget. The institute wants to "make a difference" and contribute to Gulf of Mexico research. The Texas legislature provided $15 million to build a building for the institute. They also have an annual $300,000 special item funding for the Gulf of Mexico Environmental Lab. They have advisory council members from the United States, Mexico, and Cuba. Representatives from the HRI have met with researchers from around the Gulf to find out what type of research is being done, the available data, and to inquire about research needs.

The members developed an emerging mission statement which is "to create an institute that will provide an atmosphere for success in discovery, understanding, and conservation of the Gulf of Mexico." In addition to the mission statement, other elements being considered for addition to the HRI mission are: characterized by excellence and innovation; disseminate and communicate Gulf of Mexico knowledge to the scientific community, natural resource managers, and the general public; encourage long-term sustainability of the Gulf of Mexico; to play a leadership role in cooperation and collaboration with other Gulf partners; and actively participate in efforts leading to positive economic impact. Potential gulf-wide beneficial and achievable research projects will be to conduct Gulf of Mexico topographic highs projects (reefs and banks); document biodiversity of the Gulf of Mexico; develop a relational database for the Gulf of Mexico; create a Gulf of Mexico marine GIS; and help publish a book on the Gulf of Mexico. The main priority of the HRI at this time is to create a website with a directory of all scientists and their activities in the Gulf of Mexico. P. Choucair said HRI could provide SEAMAP some advertisement, which would help in obtaining funding. He said it may be possible to develop collaboration and to jointly receive funding for software, platforms,

equipment, etc. After discussion, the Subcommittee agreed to invite a representative from HRI to give a presentation at the October meeting and maybe have a SEAMAP representative or a Gulf representative present at one of HRI's upcoming meetings. The Subcommittee asked P. Choucair to give the appropriate personnel copies of the SEAMAP Marine Directory for their use. A copy of P. Choucair's presentation is available at the GSMFC office.

Collecting Fish Tissue for Mercury Sampling

R. Lukens distributed information on collecting fish tissue for mercury sampling. He said Governor Riley Boykin Smith from Alabama gave the Commission a presentation on the state of Alabama's concern about mercury in marine fish. R. Smith then asked the GSMFC, in cooperation with the appropriate state and federal agencies, to encourage and facilitate the development of a gulf-wide survey to collect fish tissue for mercury analysis. R. Lukens said the survey will collect tissue from species commonly consumed by the public from commercial and recreational anglers. R. Lukens then discussed the draft recommendations the GSMFC is proposing to collect fish tissue. He said they are planning to use the FIN Program to collect samples and asked if SEAMAP and the individual state fishery independent programs would be willing to cooperate in collecting samples, also. This would not require new surveys. He is proposing to use existing surveys to collect extra samples for mercury testing and provide funding to defray costs, i.e., extra personnel, equipment, etc. He then reviewed the methodology they plan to use and other parts of the proposed program. The Subcommittee asked what funding sources he will be seeking. R. Lukens answered that funding would come from Congress. The Subcommittee suggested also seeking funding from the offshore oil industry and MMS. The Subcommittee agreed to cooperate if funding is available to help defray costs. R. Lukens will keep the Subcommittee informed.

Early Detection Exotic Species Sampling

R. Lukens stated he is an ex-officio member of the Aquatic Invasive Species Task Force, which is a legislatively established task force, that has the responsibility of dealing with nonnative and invasive species. He said SEAMAP can play an important role in the future of early detection and monitoring for invasive species. He asked the Subcommittee to please instruct their field people to flag nonnative or invasive species in their database and send the samples to him. The Subcommittee agreed to do this and R. Lukens will work with J. Rester and M. McDuff on how this can be entered and queried in the database.

The Meeting adjourned at 12:03 p.m.

The SEAMAP Gulf reconvened Thursday, August 8, 2002 at 8:40 a.m.

New SEAMAP Data Entry Program

M. Leiby reported that the archiving center had been having problems with the data entry program because it was a dBASE system and it led to a lot of errors. He said they spent an inordinate amount of time manually proofing the data, looking for typographical errors that inevitably occur whenever a large amount of data is being entered, and it was getting very frustrating. There were also problems

with the biocodes that he explained previously, so they created an entry system in Visual Basic. He explained how the program works and stated that basically, once the data is entered and proofed, it does not have to be re-entered ever again. The catalog numbers are also automatically incremented. He said the new system has increased their productivity enormously. He said they are also working on improving the data entry from the cruise stand point and M. McDuff will help with that.

New SEAMAP Real-Time Data Entry program

P. Choucair said that when he joined SEAMAP, Texas was at the beginning of the real- time data surveys. He wrote a data entry program in Microsoft Access because he had a problem going to a MS-DOS prompt to enter data. He then gave a demonstration on how Texas now enters their real-time data. He said the program reduces key strokes and checks for errors. The Subcommittee asked if all the states could use this program. He said for each state to send him their default values and he will incorporate them into the program for each state. The Subcommittee asked J. Rester if he had any problems with the new program in running the real-time data for distribution and he said that it worked fine. The Subcommittee asked P. Choucair to also adapt the program for the red snapper data that will be distributed at the end of the year.

Preparation of Cooperative Agreements

The Subcommittee reviewed changes to the Operations Plan and NMFS portion of the Cooperative Agreement. Final changes should be sent to J. Rester before August 15. A final copy will be mailed to the Subcommittee after all changes are incorporated.

Continuation of Activities and Budget Needs for FY2003

The Subcommittee discussed distributing the $20,000 that Florida had in their budget the previous two years. As stated before, Alabama is in line for the money but S. Heath said that if the money could be use to install an onboard computer system on the R/V TOMMY MUNRO, it can be used for that and Alabama will use the extra money the following year. M. McDuff will investigate the price of the computers and installing the computers and the Subcommittee will have a final discussion on this topic via conference call after September 10. M. Leiby stated that if he is not available for the conference call, J. Hanifen has his proxy. J. Rester will contact the Subcommittee and set up the conference call when it is convenient for everyone.

Other Business

The Subcommittee asked to receive an updated email listing for the Subcommittee.

M. McDuff will demonstrate the Data Management System at the October meeting.

J. Hanifen reminded the members to contact their state directors to try to get more funding for SEAMAP.

There being no further business, the meeting adjourned at 9:45 a.m.

APPENDIX B

2003 SEAMAP OPERATIONS PLAN

SEAMAP-GULF OF MEXICO

OPERATIONS PLAN

January 1, 2003 - December 31, 2003

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 2002, 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, 2003 through December 31, 2003. 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 2003 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 m^2 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 ½ 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, 2003 to December 31, 2003:

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 2003:

(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 2003 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 2003 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 Romaire
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 Romaire, Leader
Louisiana Department of Wildlife and Fisheries

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Mark Van Hoose
Alabama Department of Conservation and
Natural Resources

National Marine Fisheries Service
Pascagoula Laboratory

Kim Williams
Florida Fish and Wildlife Conservation
Commission

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

Ken Edds
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Fish and Wildlife Conservation
Commission

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

Mark Benfield
Louisiana State University

Sara LeCroy, Curator
SEAMAP Invertebrate Plankton Archiving
Center (SIPAC)
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

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

Larry McEachron
Texas Parks and Wildlife Department

Joanne Lyczkowski-Shultz
National Marine Fisheries Service
Pascagoula Laboratory

Mark Van Hoose
Alabama Department of Conservation and Natural Resources

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

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratory

Richard Kasprzak
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Fish and Wildlife Conservation Commission

Jim Duffy
Alabama Department of Conservation and Natural Resources

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
Texas Parks and Wildlife Department

Ken Edds
Louisiana Department of Wildlife and Fisheries

Bruce Comyns
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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.