

**ANNUAL REPORT**

**TO THE**

**TECHNICAL COORDINATING COMMITTEE**

**GULF STATES MARINE FISHERIES COMMISSION**

**OCTOBER 1, 2004 TO SEPTEMBER 30, 2005**

**SEAMAP Subcommittee**

**James G. Hanifen, Chairman**

**Jeffrey K. Rester**

**SEAMAP Coordinator**

**October 4, 2005**

**GSMFC No: 132**

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## **INTRODUCTION**

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

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

Federal programmatic funding for SEAMAP activities and administration was appropriated in Federal Fiscal Years 1985-2005 (October 1 through September 30). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY2005 were handled through State/Federal cooperative agreements, administered by SERO and the Southeast Fisheries Science Center (SEFSC), National Marine Fisheries Service (NMFS).

In FY2005, SEAMAP operations continued for the twenty-fourth consecutive year. SEAMAP resource surveys included the Fall Plankton Survey, Fall Shrimp/Groundfish Survey, Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Reefish Survey, and plankton and environmental data surveys. Other FY2005 activities included SEAMAP information services and program management.

This report is the twenty-second 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 FY2005 and proposed SEAMAP activities for FY2006.

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

### **FY2005 SEAMAP RESOURCE SURVEYS**

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

#### **Fall Shrimp/Groundfish Survey**

The Fall Shrimp/Groundfish Survey was conducted from October 12 - December 12, 2004, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm, covering 314 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 48 stations was sampled with bongo and/or neuston nets, as encountered along cruise tracks. The Polish Sorting and Identification Center will sort the samples. Once sorted, the specimens and data will be archived at the SEAMAP Archiving Center.

### **Spring Plankton Survey**

The SEAMAP Spring Plankton Survey took place from April 20 - May 30, 2005. One hundred ninety-four stations were sampled from the west Florida shelf to the Louisiana/Texas border. This was the twenty-fourth year for the survey. The objectives of the survey were to collect ichthyoplankton samples for estimates of the abundance and distribution of Atlantic bluefin tuna larvae and collect environmental data at all ichthyoplankton stations.

Plankton samples were taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consisted of two conical 61-cm nets with 333-micron mesh. Tows were oblique, surface to near bottom (or 200 m) and back to surface. Wire angle was maintained at 45 degrees. Neuston samples were taken with 947-micron mesh nets on 1 x 2-meter frames towed at the surface for ten minutes. Right bongo and neuston samples were initially preserved in 10% buffered formalin and after 48 hours were transferred to 95% ethyl alcohol for final preservation. Left bongo samples were preserved via an ethanol/ethanol transfer to aid in preservation of larval otoliths. In addition, hydrographic data (surface chlorophylls, salinity, temperature and dissolved oxygen from surface, midwater and near bottom, and Forel-ule color) were collected at all stations.

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

## **Reeffish Survey**

The primary purpose of this survey is to assess relative abundance and compute population estimates of reef fishes found on natural reef fish habitat in the Gulf of Mexico. Two types of gear are used to deploy video cameras: 1) a single-funnel fish trap (2.13 m long by 0.76 m square) with the camera mounted at a height of 25 cm above the bottom of the trap; or 2) a 4 camera array with 4 cameras mounted orthogonal to each other at a height of 25 cm above the bottom. Both gears are baited with squid before deployment. The resultant video recordings (typically of one hour duration) are processed back at the laboratory where fishes are identified and counted independently by two tape readers. Final counts are entered into the SEAMAP reef fish database along with additional observations on habitat and fish activity. NMFS conducted reeffish sampling from April 12 through May 11, 2005. Video cameras were deployed at 142 sites and the chevron trap at 29 sites.

## **Summer Shrimp/Groundfish Survey**

During the spring of 2005, 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 2005 SEAMAP summer survey was to work from the eastern Gulf to the Texas/Mexico border, in order to sample during or prior to migration of brown shrimp from bays to the open Gulf area. This was the twenty-fourth year for the survey. The entire survey occurred from June 1 through July 31, 2005 and 272 trawl stations were sampled during the survey. In addition, NMFS, Mississippi, Alabama, and Louisiana vessels collected ichthyoplankton data.

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.

## **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 1986-2004 covered Gulf waters from Florida Bay to Brownsville, Texas. Due to impacts from Hurricane Katrina, the 2005 Fall Plankton Survey was cancelled.

## **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 1982-2004 have been entered into the system and data from 2005 surveys are in the process of being verified, edited, and entered for storage and retrieval. Verified, non-confidential SEAMAP data are available conditionally to all requesters, although the highest priority is assigned to SEAMAP participants.

Requested SEAMAP data were used for a multitude of purposes in 2005:

- Evaluating the abundance and size distribution of penaeid shrimp in federal and state waters to assist in determining opening and closing dates for commercial fisheries;
- Evaluating and plotting the size of the hypoxic (Dead Zone) area off of Louisiana;
- Assessing shrimp and groundfish abundance and distribution and their relationship to such environmental parameters as temperature, salinity, and dissolved oxygen;
- Identifying environmental parameters associated with concentrations of larval finfish;
- Assessing the potential impact of liquefied natural gas facilities on marine fish stocks;
- Compiling the 2005 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 2005 Summer Shrimp/Groundfish Survey. Seven weekly mailings were produced and distributed to approximately 200 interested individuals. These plots were also available through the SEAMAP home page. Management agencies also received comprehensive data listings showing penaeid shrimp length frequencies, sampling parameters and environmental conditions.

### **SEAMAP Archiving Center**

Larval fish and fish egg samples sorted to the lowest taxa level possible by the Polish Sorting and Identification Center are returned to the SEAMAP Archiving Center for archiving and loan to researchers. To date in 2005, 956 samples were returned from the Polish Sorting and Identification Center. Data entry for 839 of the sorted samples has been completed in the new SEAMAP Access data entry system. The 19,899 specimens cataloged this year represent 18 orders, 126 families, 235 genera and 245 species.

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

## **SEAMAP Invertebrate Plankton Archiving Center**

The SIPAC is in its twenty-first year of operation. Sara LeCroy at the USM/COST/GCRL currently serves as the SIPAC curator. The overall mission of the SIPAC, to archive and manage the large collection of plankton samples acquired during SEAMAP cruises and to obtain specimens and/or data on selected invertebrate larval stages from those samples, continued during the year, but at a reduced level of activity. The SIPAC continues to provide unsorted plankton samples and data or specimens of larval invertebrates to qualified researchers upon request.

In an effort to keep the space required to house the SIPAC collection of unsorted plankton samples to a minimum, samples that have been in the collection for over 10 years and duplicate samples sorted and received from the Polish Sorting and Identification Center, are aliquoted to ¼ their original volume and placed into 100 ml vials, as necessary. When possible, the remaining ¾ aliquots are donated to educational institutions for use as teaching materials. If the remaining sample must be discarded, sample jars are cleaned and returned to NMFS-Pascagoula for reuse. To date, approximately 2,264 samples collected from 1982-1988 have been aliquoted and prepared for long-term storage. Due in part to the removal of approximately 180 samples to the NMFS, Pascagoula, in 2002, there is presently sufficient space available for additional samples to be deposited into the SIPAC archives without continuing the aliquoting of 1988-1994 SEAMAP samples.

### **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 2004 and March 2005 in conjunction with the Annual Meeting of the GSMFC. All meetings included participation by various work group leaders, Coordinator, Data Manager, Program Monitor and other GSMFC staff. Representatives from the Gulf program also met with the South Atlantic and Caribbean representatives in August 2005 to discuss respective program needs and priorities for FY2006.

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 2005. 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:

- *2005 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, 2004 to September 30, 2005*. A detailed summary of program accomplishments, emphasizing survey design, material collected, data dissemination, budget information, and future survey activities.
- *Annual Report of the SEAMAP Program - October 1, 2003 to September 30, 2004*. A summary of FY2004 activities and proposed FY2005 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.

## **Proposed 2006 Activities**

Preliminary 2006 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 \$1.38 million. At the August meeting, the SEAMAP components based their allocations on level funding for 2006. At this level, the share to be allocated for SEAMAP-Gulf activities (including GSMFC) will be \$612,430.

Proposed 2006 activities for all Gulf participants are shown in Table 4. The approved 2006 Operations Plan for SEAMAP-Gulf is contained in Appendix B.

## **FY2005 Financial Report**

Total allocations for FY2005 program administration were \$99,137. 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, 2005.

**TABLE 1.**

**SEAMAP REPRESENTATIVES FOR FY2005**

James Hanifen, Chairman  
Louisiana Department of Wildlife and Fisheries

Stevens Heath, Vice Chairman  
Alabama Department of Conservation and Natural Resources

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

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

Paul Choucair  
Texas Parks and Wildlife Department

Butch Pellegrin  
National Marine Fisheries Service  
Pascagoula Laboratory

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

**TABLE 2.**

**SEAMAP WORK GROUP MEMBERS FOR FY2005**

ADULT FINFISH WORK GROUP

Terry Henwood, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

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

DATA COORDINATING WORK GROUP

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

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

ENVIRONMENTAL DATA WORK GROUP

Terry Romaine, Leader  
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose  
Alabama Department of Conservation and  
Natural Resources

Kim Williams  
Florida Fish and Wildlife Conservation  
Commission

Rob Ford  
National Marine Fisheries Service  
Pascagoula Laboratory

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

Thomas Leming  
National Marine Fisheries Service  
Pascagoula Laboratory

PLANKTON WORK GROUP

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

Alonzo Hamilton  
National Marine Fisheries Service  
Pascagoula Laboratory

Leslie Hartman  
Alabama Department of Conservation and  
Natural Resources

Ken Edds  
Louisiana Department of Wildlife and  
Fisheries

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

Mark Leiby  
Florida Fish and Wildlife Conservation  
Commission

Mark Benefield  
Louisiana State University

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

RED DRUM WORK GROUP

Mike Murphy, Leader

Florida Fish and Wildlife Conservation Commission

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

Joanne Lyczkowski-Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

Joseph Shepard  
Louisiana Department of Wildlife and  
Fisheries

Mark Van Hoose  
Alabama Department of Conservation and  
Natural Resources

Larry McEachron  
Texas Parks and Wildlife Department

REEF FISH WORK GROUP

Richard Waller, Leader

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

Texas Parks and Wildlife Department

Mark Leiby  
Florida Fish and Wildlife Conservation  
Commission

Chris Gledhill  
National Marine Fisheries Service  
Pascagoula Laboratory

Jim Duffy  
Alabama Department of Conservation and  
Natural Resources

Richard Kasprzak  
Louisiana Department of Wildlife and  
Fisheries

SHRIMP/GROUNDFISH WORK GROUP

Butch Pellegrin, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Texas Parks and Wildlife Department

Michael Harden  
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 2006 PROGRAMMATIC BUDGET**

Alabama Department of Conservation and Natural Resources	79,600
Florida Fish and Wildlife Conservation Commission	121,340
Louisiana Department of Wildlife and Fisheries	135,200
University of Southern Mississippi/College of Marine Sciences/ Gulf Coast Research Laboratory	118,349
Texas Parks and Wildlife Department	58,804
Gulf States Marine Fisheries Commission	99,137
<b>TOTAL</b>	<b>\$612,430</b>

**TABLE 4.**  
**PROPOSED SEAMAP-GULF ACTIVITIES, 2006**

	Fall	Winter	Spring	Summer
<b>Resource Surveys:</b>				
Spring Plankton Survey			X	
Shrimp/Groundfish Surveys	X			X
Fall Plankton Survey	X			
Plankton & Environmental Data Surveys	X	X	X	X
<b>Information Operations:</b>				
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
<b>Program Administration:</b>	X	X	X	X

# APPENDIX A

OCTOBER 2004 - AUGUST 2005

SEAMAP MINUTES

SEAMAP Subcommittee Meeting  
**MINUTES**  
Biloxi, MS  
October 11, 2004

**Call to Order**

Chairman Jim Hanifen called the meeting to order at 12:40 p.m. The following members and others were present:

**Members:**

Jim Hanifen, *Chairman*, LDWF, Baton Rouge, LA  
Richard Waller, USM/CMS/GCRL, Ocean Springs, MS  
Paul Choucair, TPWD, Rockport, TX  
Steve Heath, ADCNR/MRD, Gulf Shores, AL  
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS  
Mark Leiby, FWC/FWRI, St. Petersburg, MS

**Others:**

Mark McDuff, NOAA Fisheries, Pascagoula, MS  
Terry Henwood, NOAA Fisheries, Pascagoula, MS  
Read Hendon, USM/CMS/GCRL, Ocean Springs, MS  
Karen Mitchell, NOAA Fisheries, Pascagoula, MS  
Joanne-Lyczkowski-Shultz, NOAA Fisheries, Pascagoula, MS  
Walter Tatum, Gulf Shores, AL

**Staff:**

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

**Adoption of Agenda**

R. Waller will discuss the new invertebrate key that is now on the GSMFC website, and the Spring Plankton Survey under other business. P. Choucair will discuss real time data under agenda item 10.  
**The agenda was adopted as modified.**

**Approval of Minutes (08/04/04)**

**P. Choucair moved to approve the August 4, 2004 minutes as submitted. M. Leiby seconded the motion and it passed.**

## Administrative Report

J. Rester reported the Fall Plankton cruise started at the end of August and ran through September of this year. The rest of his report will be covered under other agenda items.

## Status of the FY2005 Budget

J. Rester said the Senate mark for 2005 is \$1.75 million, but this is not a signed, final budget. He said the 2004 budget level should be used for planning purposes. The budget was discussed at the August meeting, but the Subcommittee did not resolve what to do with the \$20,000 from Florida. One option discussed was to purchase a hydro lab, but P. Choucair withdrew that request because the company decided not to let them field test the product. M. Leiby said that if the others states cannot use the \$20,000, Florida would find something to do with it. R. Waller asked if the money could be used to expand some surveys and J. Rester said yes, but this extra \$20,000 is for this coming year only. J. Rester said more funding might be available from NMFS in 2005 but final word has not been received. The three SEAMAP coordinators and chairman will have to meet to discuss the three-way split if extra funds are available through NMFS. R. Waller said Mississippi could use the money to increase plankton sampling. **M. Leiby moved to give the \$20,000 to Mississippi to be used for plankton sampling. S. Heath seconded the motion and it passed.** R. Waller and others involved in the plankton sampling will meet at GCRL soon to discuss how the cruise will be expanded with the \$20,000, and will then inform the Subcommittee. R. Waller said he would not have to discuss plankton sampling under other business now that they have the extra \$20,000. J. Hanifen said the Subcommittee would meet via conference call after the final budget is passed to discuss priorities if additional or less funding is received. J. Rester asked all the members to please submit their cooperative agreements as soon as possible.

## SEAMAP ArcIMS Site Demonstration

J. Rester said P. Hoar was unable to attend this meeting so he will demonstrate the site. He said the first thing that needs to be discussed is how to standardize the database. He showed a word document on how he standardized the database, and then showed several examples of shape files that he created with different years, species, weights, environmental parameters, etc. He explained how to use the legends with the files to make comparisons and see different trends. J. Rester asked which environmental parameters the Subcommittee wanted to have available and they said all by cruise.

S. Heath said there needs to be a way to show the metadata for each cruise, especially if the cruise is not seasonal or if anything different from the standard SEAMAP protocols were done. Also, both the scientific and common species' names need to be in the drop down menu list. M. McDuff asked the Subcommittee for feedback on what else to include and what to change. It was suggested to put it out by survey. The "zero" catches also need to be shown. J. Rester will discuss this with P. Hoar to see how this can be set up. There will also be a comment box for explanations. M. McDuff suggested having a plot of effort. S. Heath said there needs to be a time factor with effort for the maps so there will not be a misrepresentation of the data. He said the information needs to be conveyed up front so users will not think it is a simultaneous event.

J. Rester said there are four drop down menus with the species, either weight per hour or number per hour category, the year, and the specific cruise with the dates. S. Heath asked to have the actual months. J. Rester will have to discuss this with P. Hoar because he does not know how specific it can be. P. Choucair said all of the data could be obtained by clicking on a specific 10 x 10 block. J. Rester said he created three columns, one with the 10 x 10 minute square, and the number and weight per hour. He said everything is set up in Access and he is not sure if all the information can be brought in. P. Choucair said that would be a different table. M. McDuff said it could be by vessel also, not just survey design, and the bottom of the screen could show exactly when they were sampling. J. Rester said the legends are limited but he will check to see if all of this can be added.

R. Waller suggested having links to other sites with similar information. J. Rester said they have discussed providing a link to fishbase, which has all the information on the species, and explains what fishery-independent sampling is. J. Rester asked the Subcommittee if they wanted standardized legends across all years and they said yes. The Subcommittee said to show environmental parameters too. M. Leiby said it should state somewhere that this is just a snapshot of what is in the database. If users want to do analysis, they need to request the data.

J. Hanifen asked J. Rester to give all of the suggestions to P. Hoar, and after they are incorporated the Subcommittee can review it again. M. McDuff asked if the Subcommittee wants the shapefiles to be downloadable and they said no. J. Rester asked if the Subcommittee would like to do something similar to this for plankton to show effort by year and maybe some of the catches. J. Hanifen said to focus on finalizing the trawl data and then M. Leiby and J. Shultz can meet to design the plankton information.

J. Rester asked which species the Subcommittee wanted on the list. He said it takes time to create shapefiles for every single species. R. Waller suggested having the top ten dominant species that have been in the atlas and then any other important species of interest. J. Hanifen said to add *longspine porgy* to the list. J. Rester said there are 12 fish, 3 shrimp and 2 squid on the list. J. Rester commented that in discussions with personnel from NCDDC they seem to be dedicated to keeping this website up for the long haul.

### **Approval of Draft Protocols for Fishery-Independent Sampling**

D. Donaldson said that in the packets are the revised protocols for the fishery-independent sampling and comments from Katy West from South Carolina. He reminded the Subcommittee that at the joint meeting in August, the components thought the protocols developed were too specific for each of the gears and they instructed him to make the protocols less specific. He compiled the comments into this handout. He said he was hoping to get approval from the TCC and then the Commission to proceed, but based on the comments from the South Atlantic, this may not happen soon.

P. Choucair recommended having the start and complete date and time in the station data. M. Leiby said the latitude and longitude should also have the completion time. P. Choucair asked to add the stat code. S. Heath asked to add a paragraph under "Sampling Locations" that will pertain to inshore sampling.

J. Hanifen asked the Subcommittee to send all comments to D. Donaldson within two weeks. After all comments were incorporated, the work group would meet again to develop the protocols and then distribute them for another review.

### **New SEAMAP Database Demonstration**

M. McDuff gave a demonstration on the new database. He discussed metadata, cruise reports, data documentation questionnaires, the data entry system, ITIS status and data access.

He then showed an example of a Cruise Report, which has a general introduction, objectives, methods, results, cruise participants, plot of station locations, and effort. He explained each section to the Subcommittee and stated a link can be set up with the plots that will have all of the information on the cruise. He said the Subcommittee needs to decide how detailed they want this to be. The Subcommittee agreed that the information would be very useful and asked him to set up the link. J. Rester will send out the forms for the cruise participants to fill out.

M. McDuff then discussed the questionnaire and showed a draft of what he perceives it to be. The main purpose of the questionnaire is to determine if anything other than the standard SEAMAP protocols are being done. The form asks for the survey name, data source, time frame, brief description of purpose, and description of current data collection protocols. It also asks how the survey collection procedures has changed over time; has the survey platform changed over time; has the survey gear changed over time; how are station locations selected; and to describe any factors that might explain the data, especially changes over time or differences with standard SEAMAP data collection. He then asked the Subcommittee if they wanted to add or delete anything on the form. J. Hanifen suggested the Subcommittee take the form and distribute it to all personnel involved in the surveys for their input, and then send the suggestions to M. McDuff with any changes, additions, or deletions.

M. McDuff said the Pacific Islands Fisheries Science Center produced the Metadata Repository, but they do not have the demo ready to show the Subcommittee. He said they have been working on the demo but they want to double-check it to make sure it is very general and generic before distribution. He said the planned items for the repository would have a general introduction page, a SEAMAP manual to describe the protocols, and an observer manual. It will describe the differences in specific collection protocols between each state and NMFS. It will have a reference codes table and the values for each code. He suggested having frequently asked questions and stated all the forms will be available online for print out.

The Data Element Registry or Manager is the data dictionary. He said it gives the name and meaning for each field and table. The system is designed to outline the structure of all the tables that are shared. He said the national metadata standard would still be used, but that this is in an easier to understand format. He then showed the database design, the table structures, the view structures, the codes, the statement of survey designs, the statement of all protocols, frequently asked questions, and then quality control, and how the data were processed. It has everything that is done before the data is distributed. It lets the user know where everything is located; it gives a short definition, history, and coordinates.

M. McDuff said the SEAMAP data entry system could be obtained at: <ftp://ftp.mslabs.noaa.gov/pub/SEAMAP/DES>. He said it is now working but some changes have to be made. He demonstrated how to open and link to the tables in the other database. He showed an example of a trawl cruise with the tabs along the top and said the tabs could be changed to the user's preference. He then demonstrated how the Access database could be used with GIS programs to show maps of the data.

M. McDuff then updated the Subcommittee on the progress of the new biocode and taxonomic system. He said the review and loading into the ITIS database is about 85% complete. He said that ArcDiscover is almost ready and he will demonstrate at the next meeting if the Subcommittee wants.

### **Data Tracking and Quality Control**

P. Choucair said J. Rester asked him to discuss the problems they have found in the database. He said the topics for discussion will be to identify problems in the SEAMAP Database, discuss how the GSMFC can have a more active role in the SEAMAP database management, data summary procedures and statistical processes, and a new real-time data presentation.

P. Choucair distributed handouts with examples of station tables and discussed some of the problems he and J. Rester have found in the database. He said some station tables have comments and no ops codes, some has ops codes and no comments, some have comments such as "no fish, net not on bottom," but it has catch in the table, etc. He discussed the difficulties J. Rester and he had in standardizing the data. He asked if the data should be in the database if it has an ops code. M. Leiby said data is never removed and that the analysts know that if there is an ops code, it should not be used for analytical purposes. P. Choucair said he recommends having user defined fields as a way of determining if the data should be used or not. There was a lengthy discussion on these and other problems in the database. J. Hanifen stated that due to lack of time, all of these problems could not be resolved at this meeting so a data quality control meeting needs to be scheduled. He said the Subcommittee members and all personnel who work with the data should attend the meeting. J. Rester and M. McDuff will schedule a meeting before the end of the year and contact the appropriate personnel with details. P. Choucair said there also needs to be a way for each state to verify that all the data they have submitted is in the database. M. McDuff said he will build in views in the database so the sender can verify that all of the data that was submitted, is in the database. They will also discuss the future role GSMFC should have in SEAMAP data management at the quality control meeting.

### **Data Summary and Statistical Analysis Discussion**

P. Choucair stated that he felt the SEAMAP Subcommittee needed to examine the way they were doing these analyses. He stated that he had concerns over the way SEAMAP was currently calculating some of their catch rates. His main concern related to calculating catch rates with long tows and short tows and weighting the tows the same. He stated that when he started doing his analysis, he summed the time of two 30-minute tows and a 20-minute tow, 80 minutes total, summed all the organisms, divided the sum of the time, and calculated a catch rate for that area. This is

different than the way SEAMAP currently does it. He showed tables demonstrating the differences between the two methods. He stated that for some of his examples there was a 276% difference. P. Choucair wanted to determine the better methodology and what was more statistically valid. He stated that currently SEAMAP was weighting a specific trawl, and if the 10-minute tow caught a lot more shrimp than the one-hour tow, it was contributing an equal amount as the 1-hour tow, when it should in reality be contributing 1/6 of the overall time. He stated that he thought the Subcommittee needed to start thinking about how to approach some of these new analyses.

J. Rester stated that SEAMAP does their analysis products (Atlas and real-time) different than the way P. Choucair does. J. Hanifen stated that he wanted to know why SEAMAP just could not say this was what we did and there were other ways to do it. B. Pellegrin stated that he wanted to comment on the two methods of estimating relative abundance, if this committee wanted to address the question it would really take a statistical exercise because that was essentially what you were trying to answer. He stated that the question was usually answered in two ways, and they were accuracy and precision. He stated that we would never know the accuracy because we do not know what the population parameter was that we were trying to estimate. He stated that differences exist, but we do not know which one was right. B. Pellegrin stated that we can examine precision by computing means or ratio estimators both ways and associated precisions and deciding that we would accept the one with greater precision. He stated that unless the subcommittee wanted to put the effort into a statistical exercise, the question could not be answered. He stated that he would feel comfortable with either way as long as it was stated the way that things were summarized. The Subcommittee agreed with that.

### **Election of Chairman**

**M. Leiby moved to re-elect J. Hanifen as Chairman and S. Heath as Vice Chairman. R. Waller seconded the motion and it passed.**

### **Other Business**

D. Waller showed the Subcommittee the invertebrate key developed by Harriet Perry which is on the GSMFC website. He said they have had positive input so far and people are offering more pictures to display.

J. Rester said he and P. Choucair will discuss different ways of presenting the real time data and will report to the Subcommittee in March.

T. Henwood announced B. Pellegrin has replaced him as the NMFS representative on the Subcommittee. Scott Nichols will send an official letter or email stating this in the near future.

**With no further business, the meeting adjourned at 5:10 p.m.**



SEAMAP Subcommittee Meeting

**MINUTES**

Point Clear, AL

March 14, 2005

**Call to Order**

Chairman Jim Hanifen called the meeting to order at 1:05 p.m. The following members and others were present:

**Members:**

Jim Hanifen, *Chairman*, LDWF, Baton Rouge, LA  
Richard Waller, USM/CMS/GCRL, Ocean Springs, MS  
Paul Choucair, TPWD, Rockport, TX  
Steve Heath, ADCNR/MRD, Gulf Shores, AL  
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS  
Mark Leiby, FWC/FWRI, St. Petersburg, MS  
Steven Atran (*Proxy for Richard Leard*), GMFMC, Tampa, FL

**Others:**

Mark McDuff, NOAA Fisheries, Pascagoula, MS  
Ann Lange, NOAA Fisheries, Silver Spring, MD  
Page Campbell, TPWD, Rockport, TX  
Terry Cody, Rockport, TX

**Staff:**

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

**Adoption of Agenda**

**R. Waller moved to adopt the agenda. M. Leiby seconded and the motion passed.**

**Approval of Minutes**

**M. Leiby moved to approve the October 11, 2004 minutes as submitted. D. Waller seconded the motion and it passed.**

## Administrative Report

**J. Rester** reported a Shrimp/Groundfish Work Group meeting is scheduled for April 12<sup>th</sup> at the NMFS Lab in Pascagoula. He said everyone should have received their cooperative agreements and funding for this year. L. Simpson will be visiting congress next week and he is taking the revised 2-page SEAMAP fact sheet with him.

## Data Tracking and Quality Control

P. Choucair reported that at the data meeting in December, it was decided to develop a data tracking system. He reviewed the proposal for *Improved Database Management and Dissemination* (handout). The Subcommittee then discussed each section of the proposal. **J. Rester** asked the Subcommittee to send M. McDuff all information and documentation on their survey designs so he can incorporate this with the data. He also asked the Subcommittee to submit all data to M. McDuff in a timely manner after each survey. After extensive discussion, **J. Hanifen** asked P. Choucair, M. McDuff and J. Rester to finalize this working document within the next 6 weeks and submit it to the Subcommittee for approval by email. He also asked the Subcommittee to send M. McDuff the documentation he has been asking for on the survey designs and major changes in the designs through the years so he will have that for the metadata. **P. Choucair** and **J. Rester** will also incorporate comments on the data tracking and management section for the Subcommittee's review in the near future.

## Fishery Independent Database Discussion

**D. Donaldson** reported he is still incorporating comments into the protocols and plans to have the final presentation at the August joint meeting. He said \$30,000 is available from the National Biological Information Infrastructure (NBII) to develop a data management system. He asked that all the states send in a year's worth of data so the data structure can be developed. He will contact the appropriate people in each state to receive this information.

## New Real-Time Data Display

**J. Rester** presented color maps of real time data that were developed through ArcGIS and asked the Subcommittee if this is how they want to present the real time data this summer. He gave the Subcommittee several options on how to present and what to present. The Subcommittee was pleased with the displays and asked J. Rester to use the maps for the real time data this summer.

There was then extensive discussion on developing a new way to present the SEAMAP Biological and Environmental atlas. There was disagreement on which method to use: a weighted mean versus an unweighted mean to derive the catch per unit effort. **M. Leiby moved to have the data summarized both ways and to include an explanation on how they were calculated. B. Pellegrin seconded the motion.** After more discussion, **the motion was tabled** and the Subcommittee asked J. Rester to research which would be the preferred method. It was suggested he discuss the issue with a statistician(s) and then report back to the Subcommittee.

### **New SEAMAP Database Demonstration**

M. McDuff said that if anybody wishes to use the new SCS or FISCUS systems this summer, they should schedule with him on when to install the systems. He will have a training session on April 13<sup>th</sup> at the Pascagoula Lab after the Shrimp/Groundfish meeting on April 12<sup>th</sup>. He then gave a presentation on the new SEAMAP database and a copy of the complete presentation can be obtained through the GSMFC office. He asked the Subcommittee to review the new database and send him comments or suggestions as soon as possible.

**With no further business, the meeting adjourned at 5:00 p.m.**

SEAMAP Subcommittee Meeting  
**MINUTES**  
Biloxi, MS  
August 3, 2005

**Call to Order**

Chairman Jim Hanifen called the meeting to order at 8:32 a.m. The following members and others were present:

**Members:**

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

**Others:**

Karen Mitchell, NOAA Fisheries, Pascagoula, MS  
Mark McDuff, NOAA Fisheries, Pascagoula, MS  
Doug Beard, USGS, Reston, VA  
Edgardo Ojeda, UPR Sea Grant, Mayaguez, PR

**Staff:**

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

**Adoption of Agenda**

**The agenda was adopted as submitted.**

**Approval of Minutes**

**R. Waller moved to approve the March 14, 2005 minutes as submitted. P. Choucair seconded and the motion passed.**

**Administrative Report**

J. Rester reported the Spring Plankton Survey took place in May. The Summer Shrimp/Groundfish Survey started on June 1<sup>st</sup> and continued through July 31<sup>st</sup>. This was the 24<sup>th</sup> year for the survey. R. Waller stated they had to evacuate due to Tropical Storm Cindy thus putting the survey off for several days. This backed up the summer cruise and two other contracted cruises. They also had some mechanical and hardware problems, but NMFS was able to do most of the stations off Louisiana. He said even with all these problems, they were able to complete the survey.

J. Rester said real time shrimp data were again produced and distributed for seven weeks this summer and an end of cruise report was also distributed. He will discuss this further under agenda item 11.

J. Rester distributed a summary report of the Shrimp/Groundfish Work Group meeting in April. He said the main topic discussed was the operations manual and how each state and NMFS either did or did not follow the manual. The only real action item was the Work Group felt that several questions needed to be answered by the Environmental Data Work Group. This included whether salinity needed to be measured down to the thousandths decimal place and they also questioned the utility of some of the information collected regarding water color, Beaufort sea state, cloud cover, and other items that required a subjective judgment from the observer. He asked for the Subcommittee's permission to correspond with the Environmental Data Work Group and ask them their opinions on this. D. Donaldson stated that at a previous SEAMAP Subcommittee meeting it was decided not to take the readings that are so subjective because no one uses them. The Subcommittee asked J. Rester to review all work group reports and SEAMAP minutes to see if this has already been done. If it has, it needs to be changed in the Operations Manual. J. Rester will contact Karen Mitchell, who is in charge of the operations manual, to ask her to make the changes if they have already been approved.

### **Status of FY2006 Budget**

J. Rester reported the house budget does not have specific information on SEAMAP. The Senate mark has SEAMAP at level funding of \$1.385 million for 2006. D. Donaldson stated that they usually go with the Senate mark and he talked to E. Roche and she thinks the budget will be out soon.

J. Hanifen said that in the past, Larry Simpson takes the SEAMAP fact sheet to Congress explaining how important the program is to try to get more funding. L. Simpson suggested that the state directors and officials in the Caribbean write a letter explaining how important SEAMAP is and the consequences of what will happen if they stay level funded. The letter should emphasize the importance of the SEAMAP data and identify the users for this data. It should also state when SEAMAP data has not been used because it has not been updated, compatible, or for whatever the reason was due to lack of funding. The Subcommittee discussed how ecosystems-based management seems to be what the future holds and decided they should investigate how SEAMAP can adapt to the changes and data demands for this management approach. They need to incorporate the right "buzz" words into the SEAMAP documents instead of using the same language that has been used since the program's inception.

S. Heath informed the Subcommittee that Alabama's reef fish video data were not used for the SEDAR red snapper assessment. The reason given was artificial habitat is not used for the assessments because the data is not comparable to the natural habitat. He said if the data does not start being used, Alabama may discontinue this survey. He suggested NMFS do comparable surveys like they did for the trawls years ago, to see if it is compatible. He said if Congress hears that SEAMAP data is not being used, they will have no reason to give more funding. The Subcommittee agreed to investigate this further. S. Heath will report on this at the October meeting.

P. Choucair brought to the Subcommittee's attention that the Ocean Report released last year recommended doubling funding for marine or fisheries research. The Harte Research Institute has discussed sponsoring a summit in November to discuss the data in the Gulf of Mexico. Another political group is trying to bring all the governors of the Gulf States together to sign a document stating they agree to work together on fisheries resources. He suggested SEAMAP can approach some of these issues through this symposium. J. Rester stated how frustrating it is that all of these new programs come into existence and receives millions of dollars to do basically what SEAMAP has been doing for 25 years.

The Subcommittee discussed LNG and how managers will need data to decide this issue. It was suggested that SEAMAP approach the oil companies to fund plankton sampling. The Subcommittee also decided this topic should be incorporated into the letters written to Congress. The Governors and state directors need to know that SEAMAP would be the best way to collect this data.

After further discussion on how to receive additional funding for SEAMAP, the Subcommittee charged J. Rester to draft a letter and circulate to the Subcommittee for final approval in October. After the final letter is approved, each Subcommittee member will decide which key personnel in their state needs to sign the letter and then it will be mailed to Congress.

#### **Activities and Budget Needs for FY2006**

Florida - M. Leiby stated Florida will try to continue doing the same work as previous years with level funding. He stated they are only managing the archiving center, they have not sampled in quite a few years.

Alabama - S. Heath stated Alabama will continue doing the same work unless the decision is made to stop the trap video portion. If so, that money will go into sampling. He said if more money is made available, they can use it.

Mississippi - R. Waller stated Mississippi will continue also, but they will eventually need more funding to cover the higher fuel costs.

Louisiana - J. Hanifen said they will continue too, but they did have to decrease some field work when they lost the temporary increase. He said due to high fuel costs they had to drop one survey so they are only doing the summer and fall shrimp/groundfish and plankton associated with those because they cannot afford to go offshore.

Texas - P. Choucair said Texas will continue and should be okay for the next two years but it has been mentioned to drop offshore sampling in Texas as an option for reducing operating costs.

GSMFC - J. Rester stated the Commission will also continue at level funding. He did ask when the effort becomes an effort of diminishing returns. When will SEAMAP get to the point that they are not collecting enough data to be worth anything? If there are only five samples collected and statistically there should be ten samples to do something with, what is the point?

NMFS - B. Pellegrin said NMFS will continue at level funding and they hope the *OREGON II* will last a few more years. They plan to have a new research vessel in two to three years.

The Subcommittee discussed having an external review of SEAMAP. Having others review SEAMAP and give guidance and recommendations on what to focus on in the future may help the program receive more funding. They will discuss this at the joint meeting under the management plan agenda item.

### **Metadata Production and Possible USGS Help**

D. Beard gave an overview of the USGS Aquatic Information Program and explained how this can be useful for SEAMAP data. A complete copy of his presentation can be obtained from the GSMFC.

### **SEAMAP - Gulf Priorities and Costs for 2006-2010**

J. Rester emailed the Subcommittee with a list of priorities for the future. He asked for more recommendations. The Subcommittee agreed that restoring existing programs should be the top priority. They felt everything on the list is a priority and they will send J. Rester breakdown amounts for each item by September 1<sup>st</sup> to incorporate into the new management plan. The Subcommittee asked J. Rester to re-send the list along with other items discussed today and they will send it back to him with the appropriate figures from each state. P. Choucair stated that if SEAMAP decides to have an external review, the cost would be at least \$50,000, so that amount also has to be considered.

### **Review of New SEAMAP Atlas Format**

J. Rester said he and P. Choucair have been working on a new atlas format and P. Choucair developed an interactive form to be used with the SEAMAP data. The user would receive a disk with the SEAMAP data on it and the data can be queried to receive different information such as trend data, species data, etc. The disk would also contain the preface material stating how many trawls were made for each survey, how many stations, dates, times, etc. He asked for suggestions from the Subcommittee and asked if they still wanted to produce an atlas or try to have something interactive online. The Subcommittee wishes to continue doing an atlas in this CD-ROM format and when the online capability is available, they will consider discontinuing the atlas. J. Rester said he should have more information to present at the October meeting on the ArcIMS website.

### **Discussion of Coordinated Fishery Independent Activities**

D. Donaldson said the latest protocol is in the folders and he will review this at the joint meeting instead of doing it for both meetings. He said they hope to have a data structure by the end of the year.

### **2005 Real Time Data**

J. Rester said the real time data were distributed by email to approximately 65 people and mailed to about 200 people. He said he has to work on how to do the length frequencies and work out some other kinks for next year's mailings. He asked for suggestions and the Subcommittee stated they liked the new format. He said he and P. Choucair will continue working on this and incorporating new ideas that they did not have time to implement for this year's mailings.

### **Preparation of Cooperative Agreements**

J. Rester said this is the end of a three year cycle and C. Binkley will discuss a new process for the cooperative agreements in the Joint Meeting. He said that after C. Binkley gives her presentation and the group asks questions, he will make the modifications to the cooperative agreement and send to the Subcommittee. The members can then make their changes and send the cooperative agreements to C. Binkley.

### **Other Business**

**With no further business, the meeting adjourned at 11:47 a.m.**



# APPENDIX B

## 2006 SEAMAP OPERATIONS PLAN

# SEAMAP-GULF OF MEXICO

## OPERATIONS PLAN

January 1, 2006 - December 31, 2006

### 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.

A five year *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2006-2010* 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*, the *SEAMAP Management Plan: 1996-2000*, and the *Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 2001-2005* 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: 2006-2010* 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 2005, the SEAMAP-Gulf, South Atlantic, and Caribbean, to coincide with the new NOAA Grant procedures, agreed to develop an operations plan on a five year basis. This SEAMAP-Gulf Annual Operations Plan describes planned activities and events for the period January 1, 2006 through December 31, 2006. 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: 2006-2010*.

## **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 2006 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 Fish and Wildlife 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<sup>2</sup> sites designated as “reef areas” that are selected by a stratified random sample procedure. The 4-camera system soaks on the bottom for 30 minutes. A chevron fish trap is employed to collect fish specimens and soaks for 1 hour.

### Summer Shrimp/Groundfish Survey

Objectives of this survey are to:

- (1) monitor size distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf;
- (2) aid in evaluating the management measures of the GMFMC's Shrimp Fishery Management Plan;

- (3) provide information on shrimp and groundfish stocks across the northern Gulf of Mexico from inshore waters to 60 fm;
- (4) obtain length frequency measurements for major finfish, shrimp and other important invertebrate species to determine population size structures; and
- (5) collect ichthyoplankton samples to determine abundance and distribution of the larvae of commercial and recreationally important species.

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

#### Fall Shrimp/Groundfish Survey

Objectives of this survey will be to:

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

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

### **OPERATIONS**

The following activities and events by participant comprise the SEAMAP-Gulf of Mexico operations schedule for the period January 1, 2006 to December 31, 2006:

#### 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, nearshore and offshore Louisiana waters
- (3) Fall Plankton Survey: October, nearshore and offshore Louisiana waters in conjunction with Fall Shrimp/Groundfish Survey
- (4) Plankton sampling in conjunction with trawl surveys
- (5) Plankton sample sorting and identification
- (6) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee
- (7) Process sediment and chlorophyll samples
- (8) 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: 2006-2010.* 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: 2006-2010.*

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;
- (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 2006:

- (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: 2006-2010*. Designated members for 2006 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:	Butch Pellegrin
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 2006 are:

#### **ADULT FINFISH WORK GROUP**

Terry Henwood, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

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

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

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

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

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

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

**ENVIRONMENTAL DATA WORK GROUP**

Terry Romaine, Leader  
Louisiana Department of Wildlife and Fisheries

Thomas Leming  
National Marine Fisheries Service  
Stennis Space Center

Kim Williams  
Florida Fish and Wildlife Conservation  
Commission

Joanne Lyczkowski-Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

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

Mark Van Hoose  
Alabama Department of Conservation and  
Natural Resources

**PLANKTON WORK GROUP**

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

Alonzo Hamilton  
National Marine Fisheries Service  
Pascagoula Laboratory

Mark Benfield  
Louisiana State University

Mark Leiby  
Florida Fish and Wildlife Conservation  
Commission

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

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

Leslie Hartman  
Alabama Department of Conservation  
and Natural Resources

Ken Edds  
Louisiana Department of Wildlife and Fisheries

**RED DRUM WORK GROUP**

Mike Murphy, Leader  
Florida Fish and Wildlife Conservation Commission  
Florida Fish and Wildlife Research Institute

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

Joanne Lyczkowski-Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

Joseph Shepard  
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose  
Alabama Department of Conservation and Natural  
Resources

Larry McEachron  
Texas Parks and Wildlife Department

**REEF FISH WORK GROUP**

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

Texas Parks and Wildlife Department

Chris Gledhill  
National Marine Fisheries Service  
Pascagoula Laboratory

Jim Duffy  
Alabama Department of Conservation and  
Natural Resources

Mark Leiby  
Florida Fish and Wildlife Conservation  
Commission

Richard Kasprzak  
Louisiana Department of Wildlife and Fisheries

**SHRIMP/GROUNDFISH WORK GROUP**

Butch Pellegrin, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Texas Parks and Wildlife Department

Michael Harden  
Louisiana Department of Wildlife and Fisheries

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

Nate Sanders  
National Marine Fisheries Service  
Pascagoula Laboratory

Leslie Hartman  
Alabama Department of Conservation and Natural  
Resources

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: 2006-2010*.

**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 2006-2010*, 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: 2006-2010*.

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.