

**ANNUAL REPORT**

**TO THE**

**TECHNICAL COORDINATING COMMITTEE**

**GULF STATES MARINE FISHERIES COMMISSION**

**OCTOBER 1, 1995 TO SEPTEMBER 30, 1996**

**SEAMAP Subcommittee**

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**September 30, 1996**

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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 1985-1996 (October 1 through September 30). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY1996 were handled through State/Federal cooperative agreements, administered by SERO and the Southeast Fisheries Science Center (SEFSC), National Marine Fisheries Service (NMFS).

In FY1996, SEAMAP operations continued for the fifteenth consecutive year. SEAMAP resource surveys included the Fall Shrimp/Groundfish Survey, Louisiana seasonal trawl surveys, Spring Plankton Survey, Reef Fish Survey, Summer Shrimp/Groundfish Survey, Fall Plankton Survey and plankton and environmental data surveys. Other FY1996 activities included SEAMAP information services and program management.

This report is the thirteenth 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 FY1996 and proposed SEAMAP activities for FY1997.

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

## **FY1996 SEAMAP RESOURCE SURVEYS**

In FY1996, collection of resource survey information continued for the fifteenth 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 Shrimp/Groundfish Survey**

The Fall Shrimp/Groundfish Survey was conducted from October 12, 1995 to January 12, 1996, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm, covering a total of 338 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:

- (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.

During the survey the NOAA Ship OREGON II sampled 195 stations in offshore waters and territorial Louisiana and Texas waters. The R/V VERRILL sampled 6 stations in Alabama territorial waters. The R/V TOMMY MUNRO sampled 26 stations in Mississippi territorial and offshore waters. The R/V PELICAN sampled 31 stations in Louisiana territorial and offshore waters. And Texas vessels sampled 80 stations within their territorial waters.

In addition, ichthyoplankton data were collected by NMFS and Louisiana vessels, at sample sites occurring nearest to half-degree intervals of latitude/longitude. A total of 28 stations was sampled with bongo and/or neuston nets, as encountered along cruise tracks. NMFS completed 23 ichthyoplankton stations and Louisiana completed 5 stations. The samples, except those taken by Louisiana, will be sorted by the Polish Sorting and Identification Center. Once sorted, the specimens and data will be archived at the SEAMAP Archiving Center.

## **Louisiana Seasonal Day/Night Surveys**

The Louisiana Department of Wildlife and Fisheries (LDWF) conducts seasonal day and night surveys as part of its continuing effort to provide comparative information on the abundance and distribution of critical life stages of major Gulf species, especially shrimp and associated environmental parameters. The sampling design for these surveys has changed little from similar day/night surveys in past years.

Sampling was conducted aboard the R/V PELICAN during four segments: September 1995 and January, March and July 1996. A stratified random station selection design was maintained, varying from the transects previously surveyed. During each segment, 24 stations were sampled during day and night at depths from 5 to 20 fm. The June sampling was completed as part of the SEAMAP Summer Shrimp/Groundfish Survey.

All seasonal trawls were completed with the standard SEAMAP net and doors. All organisms captured were identified, counted, measured and weighed. Environmental data and plankton/neuston sampling were conducted at trawl stations as well. Plankton samples were archived and sorted at the LDWF Plankton Laboratory. Specimens and data will be shipped to the SEAMAP Archiving Center in St. Petersburg, Florida. The area sampled covered Louisiana territorial and EEZ waters.

## **Spring Plankton Survey**

For the fourteenth year, plankton samples were collected during the spring in the northern Gulf of Mexico. The NOAA Ship CHAPMAN and Florida's R/V SUNCOASTER sampled offshore waters from the western edge of the West Florida Shelf to the Texas-Louisiana border from April 16 to May 26, 1996. A total of 189 stations was sampled. The CHAPMAN sampled 171 stations and the R/V SUNCOASTER sampled 18 stations along the west Florida shelf.

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) was 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). Salinity data from the Florida vessel were sent to the NMFS Mississippi Laboratories for interpretation.

## **Reef Fish Survey**

The fifth Reef Fish Survey began on June 25 and will continue into late fall 1996. Vessels from NMFS, Texas, and Alabama sample inshore and offshore waters, in addition to plankton and environmental sampling. To date, approximately 255 stations have been sampled throughout the Gulf of Mexico. Randomly selected sites from Brownsville, Texas to Key West, Florida are chosen from known hard bottom locations. The objectives of the survey are:

- (1) assess relative abundance and compute population estimates of reef fish using a video/trap technique;
- (2) determine habitat using an echo sounder and video camera;
- (3) determine if bioacoustics assessment methodology can be applied to reef fish communities;
- (4) collect environmental data at each station; and
- (5) collect ichthyoplankton samples at selected reef sites.

The primary purpose of this survey is to assess the relative abundance and compute population estimates of reef fish. Stations are randomly-selected 100 m<sup>2</sup> sites which are designated as "reef areas". There are several aspects of the reef fish survey: 1) locating and compiling known hard bottom reef habitat locations; 2) survey site selection; 3) sampling protocol using a fish trap and video camera and 4) analyses of video records. Data is collected using the trap/video methodology where a fish trap containing a video camera is deployed onto the selected reef site. Trap soak time is one hour. After trap deployment, hydrographic data including a STD/light meter, transmissometer drop, secchi disk reading and surface chlorophyll samples will be collected. Also, after the last trap/camera set, one ichthyoplankton station will be completed each day with a surface neuston net and Tucker trawl. Environmental and plankton samples collected will use established SEAMAP protocols and plankton samples will be transshipped to the Polish Sorting and Identification Center.

Final analyses of video tapes are accomplished at the Pascagoula Lab, where data is recorded onto standard SEAMAP forms. Tapes are analyzed either in their entirety or by randomly-selected one minute intervals. The determinant factors for sampling are based on whether the reader can identify and count fish entering the camera field of view and record the data.

## **Summer Shrimp/Groundfish Survey**

During the spring 1996, 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 1996 SEAMAP summary 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 1 to July 19, 1995. For comparative purposes, we have enclosed separate plots of station locations, brown, white, and pink shrimp catches and counts, and finfish catches in each of the three areas: east of the river (June 6 to June 19), waters off Louisiana west of the River (June 26 to July 19), and Gulf waters off Texas (June 1 to July 9).

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.

A total of 323 trawl samples was taken from coastal and offshore waters out to 50 fm from Mobile Bay, Alabama, to Brownsville, Texas. All vessels took environmental data, including temperature, salinity, oxygen, and chlorophyll at each station.

In June, catch rates of brown shrimp east of the River were very low, with a maximum catch of 12.1 lb/hr of 70-count shrimp. White shrimp catches east of the River were all less than 4.0 lb/hr. The largest pink shrimp catch rate east of the River was 27.0 lb/hr of 39-count shrimp taken in 15 fm of water off the Mobile Bay. Finfish catch rates east of the River were low, with the largest catch of 668 lb/hr with longspine porgy predominating.

In July's samples west of the river (Louisiana) brown shrimp catches were moderate with the largest catch rate of 36.1 lb/hr of 12-count shrimp occurring off Vermilion Bay in 14 fm. White shrimp catches were low, with a maximum catch rate of 19.0 lb/hr of 18-count shrimp taken in 15 fm east of Vermilion Bay. Catches of pink shrimp were very low off the Louisiana coast with a maximum catch rate of 6.6 lb/hr of 24-count shrimp. Finfish catch rates were also low with the largest catch rate of 1,116 lb/hr taken on July 18 with catfish predominating.

High catches of brown shrimp were made off Texas from June 1 to July 9. The largest catch rate occurred June 24 in waters off Brownsville, Texas in 18 fm (142.2 lb/hr of 68-count shrimp). White



shrimp catches off Texas were low with the largest catch, 27.4 lb/hr of 18-count shrimp, taken off Sabine in 5 fm. Catch rates for pink shrimp were also low off Texas, though the largest catch was 42.6 lb/hr of 47-count shrimp off the lower Laguna Madre in 8 fm. Finfish catch rates were moderate in Texas inshore and offshore waters. The largest catch of finfish was 802 lb/hr in 5 fm off Sabine with croaker predominating.

## **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 1986-1995 and in the current year covered Gulf waters from Florida Bay to Brownsville, Texas. Vessels from Florida, Alabama, Mississippi, Louisiana and NMFS began surveying Gulf waters on September 3 and will continue into the first week of October. Stations are located along a 30-minute latitude/longitude grid from inshore waters to the shelf edge.

The NOAA Ship CHAPMAN is sampling stations from Tampa Bay, Florida to Brownsville, Texas at depths from 5 to 100 fm. The R/V VERRILL is sampling stations at the mouth and outside Mobile Bay. The R/V TOMMY MUNRO is sampling stations south of Mississippi Sound along a 30-minute grid. The R/V PELICAN is sampling stations in Louisiana territorial waters. And Florida's R/V SUNCOASTER is sampling stations off Tampa Bay south to the Florida Straits area.

Stations were sampled with standard SEAMAP bongo nets with 333-micron mesh and/or 1 x 2-meter neuston nets fitted with 947-micron mesh. In addition, hydrographic sampling included chlorophylls, salinity, temperature and dissolved oxygen from surface, mid-water, and bottom, water transparency and water color was conducted at each station. Right bongo samples collected by NMFS and the Gulf States will be transshipped to the Polish Sorting and Identification Center. Left bongo and neuston samples will be stored at the SIPAC at the Gulf Coast Research Laboratory for possible future sorting. Louisiana plankton samples will be sorted by LDWF according to SEAMAP protocols and specimens and data provided to the SEAMAP Archiving Center.

## **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. Plankton and environmental data were also taken by Louisiana at all of its seasonal day/night survey stations. Samples were taken by participants with a 60-cm bongo net and a standard SEAMAP neuston net.

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 Poland, 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.

In addition to these piggybacked surveys, two major SEAMAP plankton surveys were conducted in FY1996, as detailed earlier.

## 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 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 1982-1995 have been entered into the system and data from 1996 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 requestors, although the highest priority is assigned to SEAMAP participants. A total of 175 SEAMAP data requests have been received and processed. In some instances, requests were filled promptly; in many cases, however, a substantial lag occurred because of the extremely large amount of data being collected on an increased number of surveys over those of past years. To date, 173 requests have been completed and work is being performed on those remaining.

Requested SEAMAP data were used for a multitude of purposes in FY1996:

- 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;
- 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 1993 SEAMAP Biological and Environmental 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) 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 information is provided by the Data Manager and staff members 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. These requests will be handled by a Central Operations staff in the same priority-based, mail-oriented manner as noted above.

## **Real-time Data**

A major function of the SEAMAP Information System in FY1996 was 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. Management agencies also received comprehensive data listings showing penaeid shrimp length frequencies, sampling parameters and environmental conditions. Representative listings are shown in Figures 2-9.

## SEAMAP96 DATA, OREGON II

PLAT	STATION	DATE	LAT	LONG	TIME	FMS	SUR	BOT	MG/M3	BDO	TYPE	FISH	TOWS	SHRIMP	FINFISH	CRK	SPT	TRT	CAT	OTHER	LBS
1	ED14	6/14/96	29-45.4	88-04.6	16	19	28.7	20.8		5.9	ST	21	1	.0	.2	0	0	0	0	7	0

PLAT	STATION	DATE	LAT	LONG	TIME	FMS	SUR	BOT	MG/M3	BDO	TYPE	FISH	TOWS	SHRIMP	FINFISH	CRK	SPT	TRT	CAT	OTHER	LBS
1	ED15	6/14/96	29-50.3	88-10.2	18	18	28.2	20.8		5.9	ST	18	1	.0	1.8	0	0	0	0	23	2

PLAT	STATION	DATE	LAT	LONG	TIME	FMS	SUR	BOT	MG/M3	BDO	TYPE	FISH	TOWS	SHRIMP	FINFISH	CRK	SPT	TRT	CAT	OTHER	LBS
1	EN15	6/14/96	29-46.5	88-12.9	20	19	29.0	20.7		5.3	ST	51	1	4.2	190.7	0	0	0	0	22	176

SPECIES:BROWN WEIGHT: .661 NUMBER: 10 MODE:153/ 2  
LEN(MM)/FREQ. 140/ 2 150/ 3 170/ 3 190/ 1

SPECIES:PINK WEIGHT: 3.527 NUMBER: 48 MODE:145/ 3  
LEN(MM)/FREQ. 120/ 8 130/ 3 140/ 13 150/ 13 160/ 1 170/ 4 180/ 5 190/ 1

PLAT	STATION	DATE	LAT	LONG	TIME	FMS	SUR	BOT	MG/M3	BDO	TYPE	FISH	TOWS	SHRIMP	FINFISH	CRK	SPT	TRT	CAT	OTHER	LBS
1	EN12	6/14/96	29-55.4	88-09.4	22	16	28.8	20.6		4.8	ST	60	1	6.7	35.1	0	0	0	0	22	20

SPECIES:BROWN WEIGHT: .119 NUMBER: 7 MODE:110/ 2  
LEN(MM)/FREQ. 100/ 3 110/ 4

SPECIES:PINK WEIGHT: 6.614 NUMBER: 78 MODE:189/ 4  
LEN(MM)/FREQ. 120/ 7 130/ 15 140/ 13 150/ 7 160/ 11 170/ 11 180/ 9 190/ 1 200/ 1

PLAT	STATION	DATE	LAT	LONG	TIME	FMS	SUR	BOT	MG/M3	BDO	TYPE	FISH	TOWS	SHRIMP	FINFISH	CRK	SPT	TRT	CAT	OTHER	LBS
1	EN11	6/15/96	30-00.3	88-24.4	02	15	28.3	20.7		3.6	ST	24	1	3.5	18.3	0	0	0	0	22	14

SPECIES:BROWN WEIGHT: 1.543 NUMBER: 45 MODE:115/ 6  
LEN(MM)/FREQ. 100/ 7 110/ 19 120/ 14 130/ 2 140/ 3

SPECIES:PINK WEIGHT: 1.984 NUMBER: 45 MODE: 0/ 0  
LEN(MM)/FREQ. 100/ 1 110/ 6 120/ 12 130/ 14 140/ 7 150/ 4 160/ 1

PLAT	STATION	DATE	LAT	LONG	TIME	FMS	SUR	BOT	MG/M3	BDO	TYPE	FISH	TOWS	SHRIMP	FINFISH	CRK	SPT	TRT	CAT	OTHER	LBS
1	EN13	6/15/96	29-56.1	88-25.7	04	17	28.2	20.5		3.8	ST	45	1	2.2	35.3	0	0	0	0	22	12

SPECIES:BROWN WEIGHT: 1.102 NUMBER: 20 MODE: 0/ 0  
LEN(MM)/FREQ. 110/ 1 130/ 7 140/ 6 150/ 3 170/ 3

SPECIES:PINK WEIGHT: 1.102 NUMBER: 21 MODE: 0/ 0  
LEN(MM)/FREQ. 120/ 7 130/ 6 140/ 4 150/ 2 160/ 1 180/ 1

Figure 2. Real-Time Data Listings, 1996 SEAMAP Summer Shrimp/Groundfish Survey

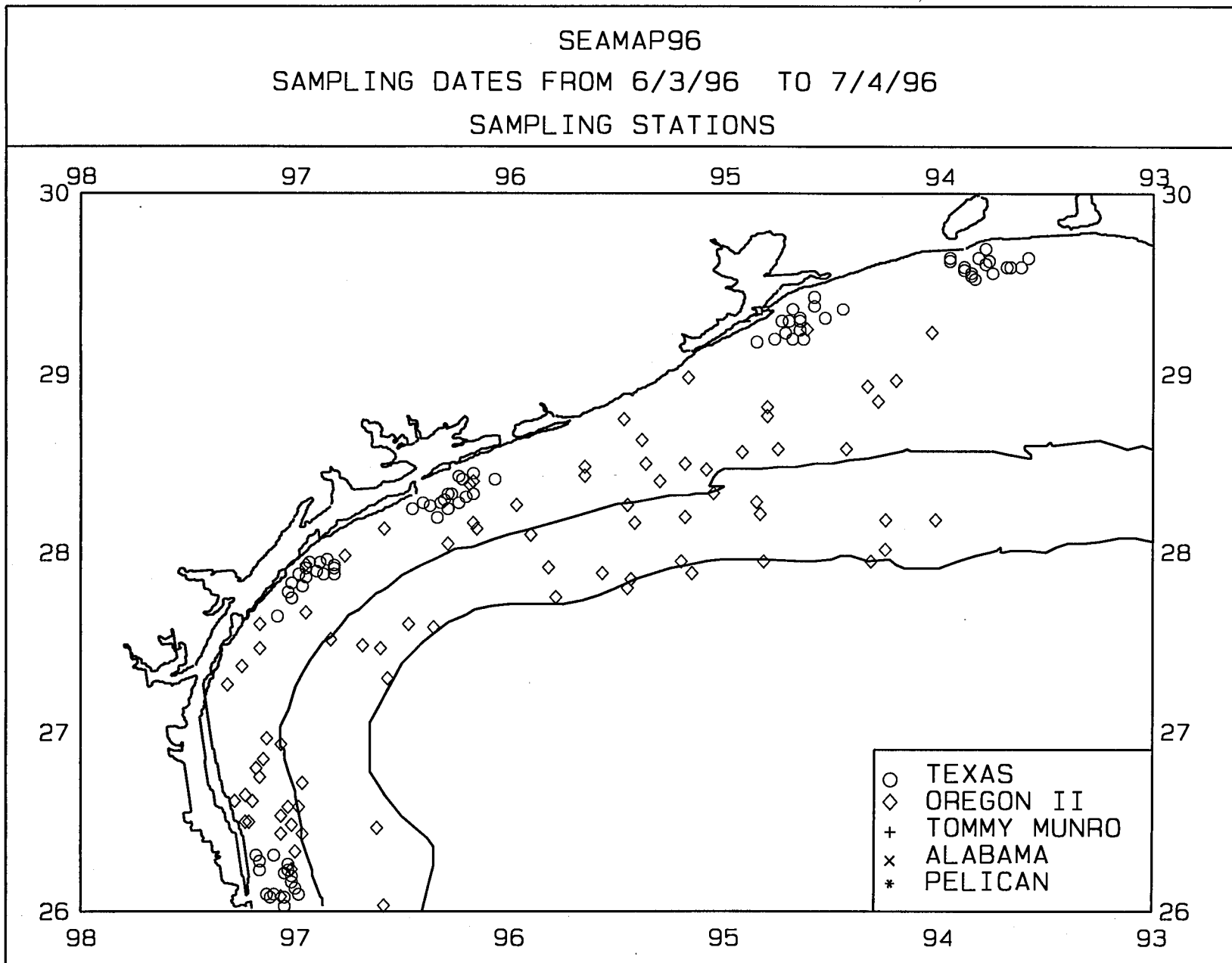


Figure 3. Real-Time Data Catch Plots, 1996

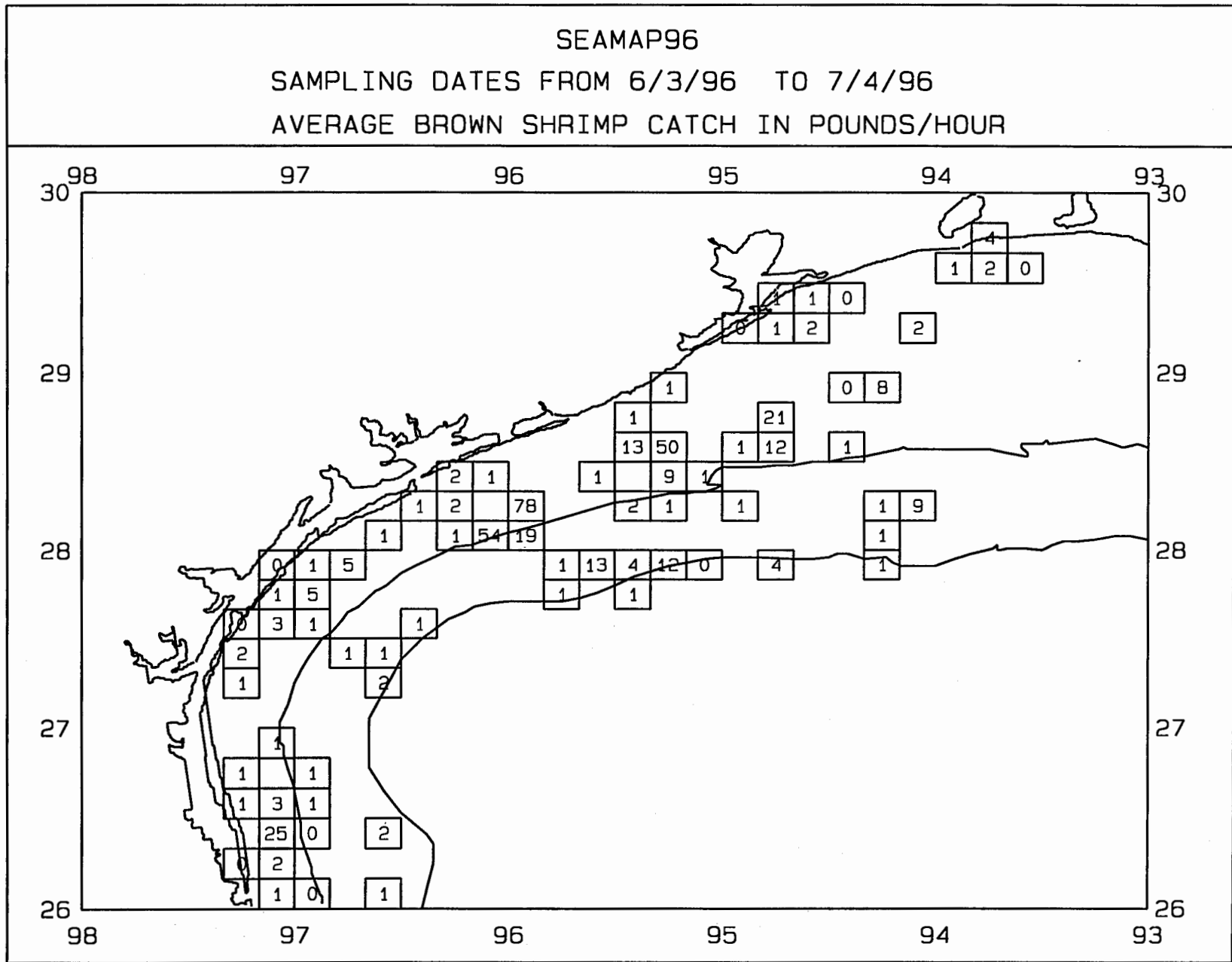


Figure 4. Real-Time Data Catch Plots, 1996



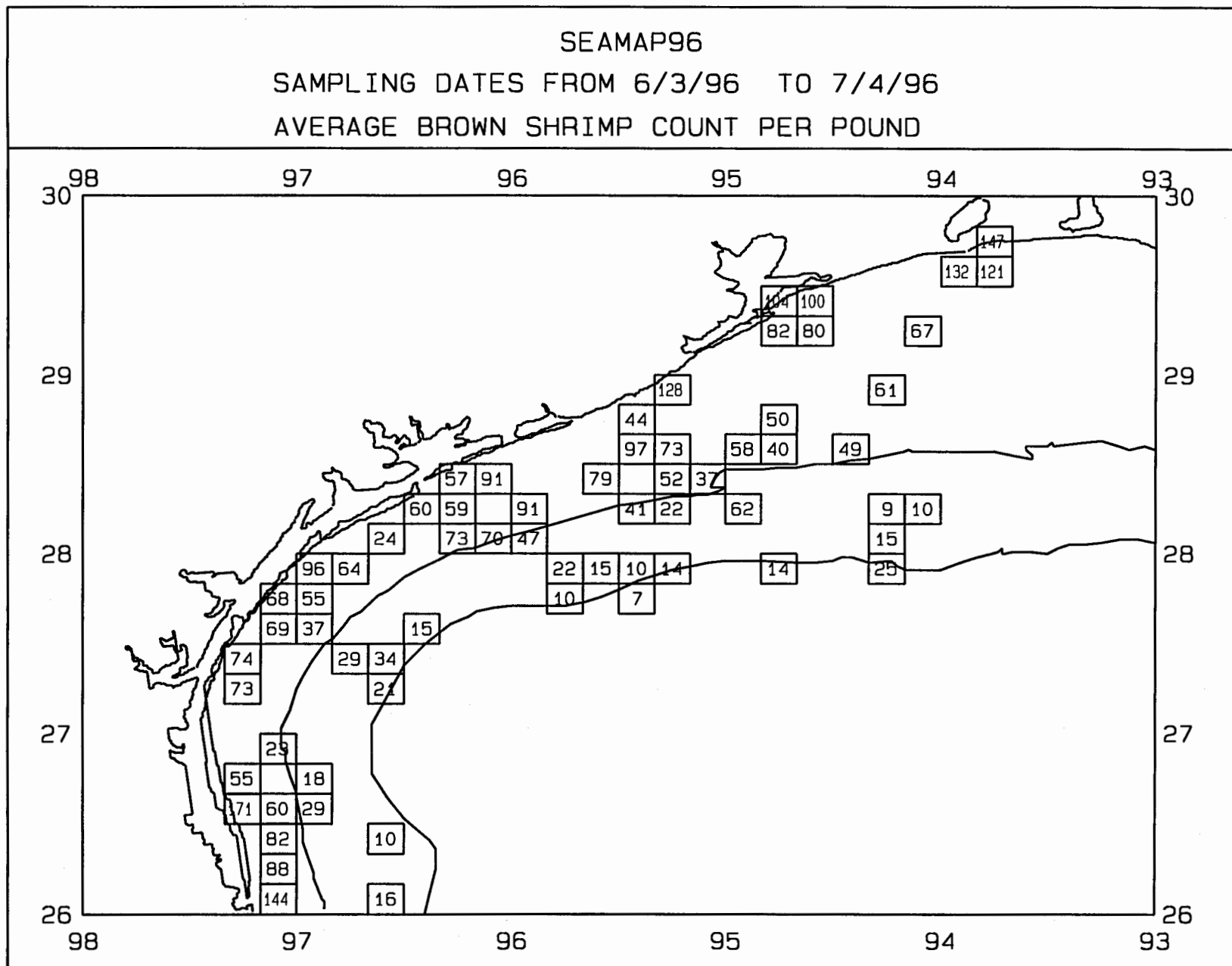


Figure 5. Real-Time Data Catch Plots, 1996

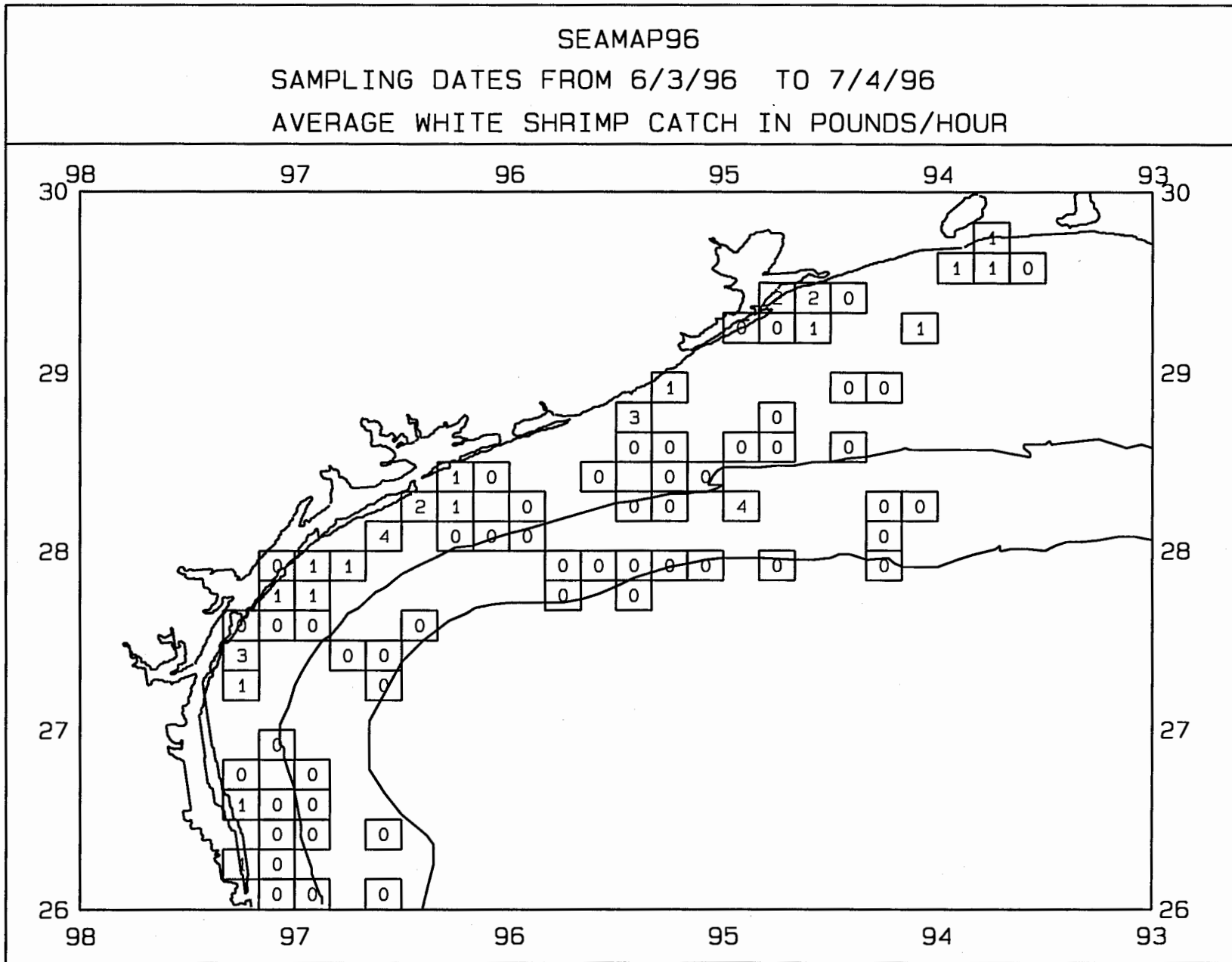


Figure 6. Real-Time Data Catch Plots, 1996

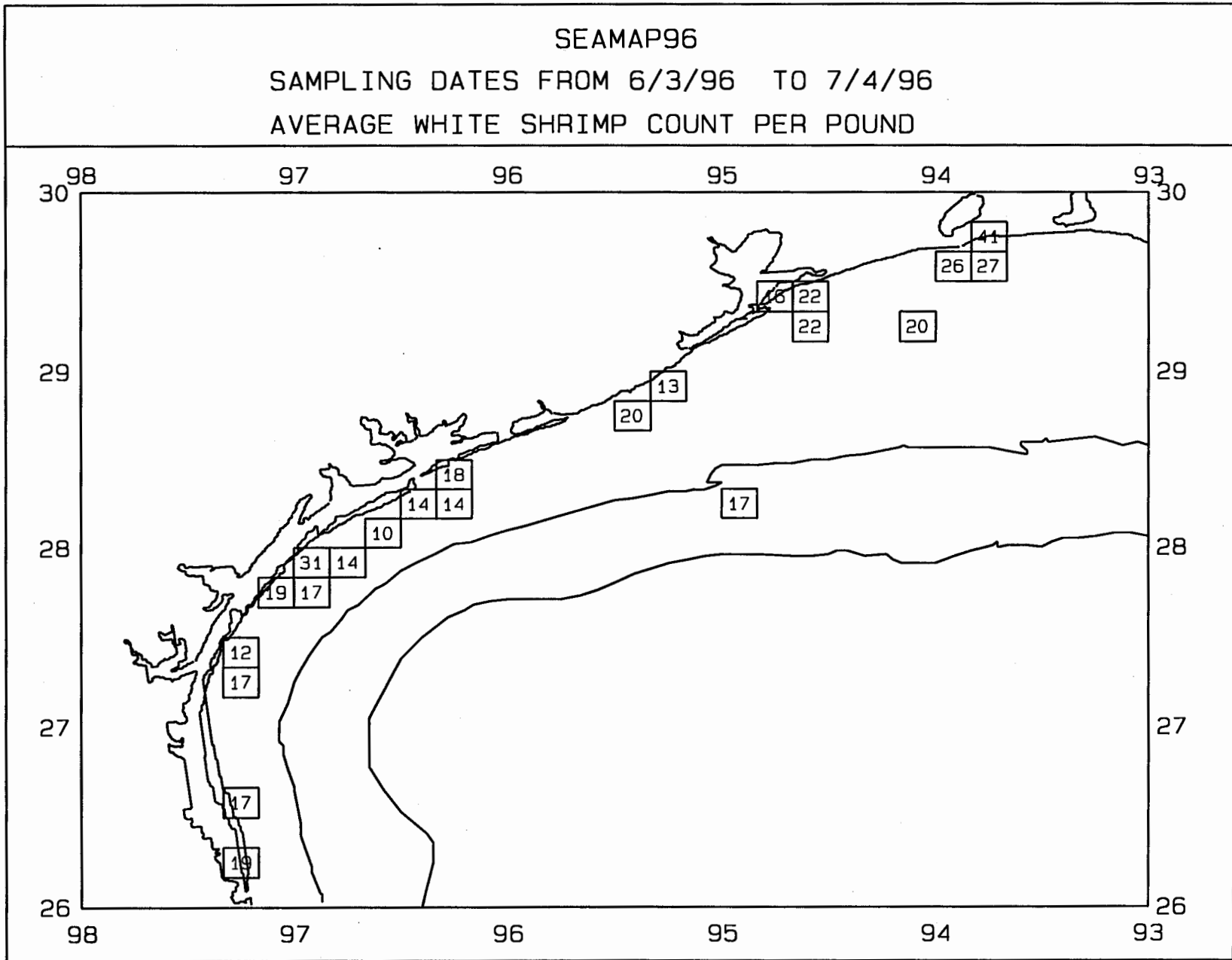


Figure 7. Real-Time Data Catch Plots, 1996

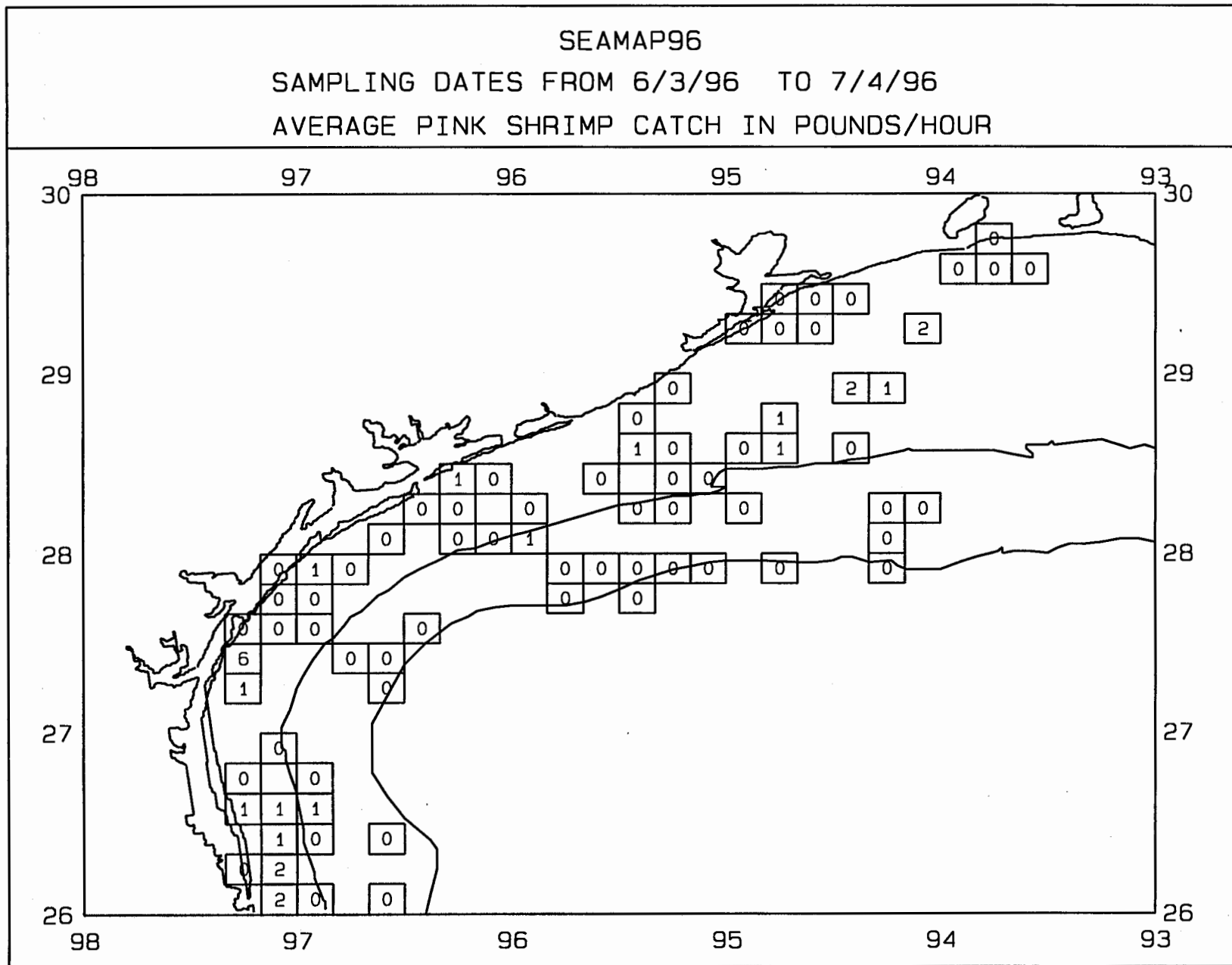


Figure 8. Real-Time Data Catch Plots, 1996

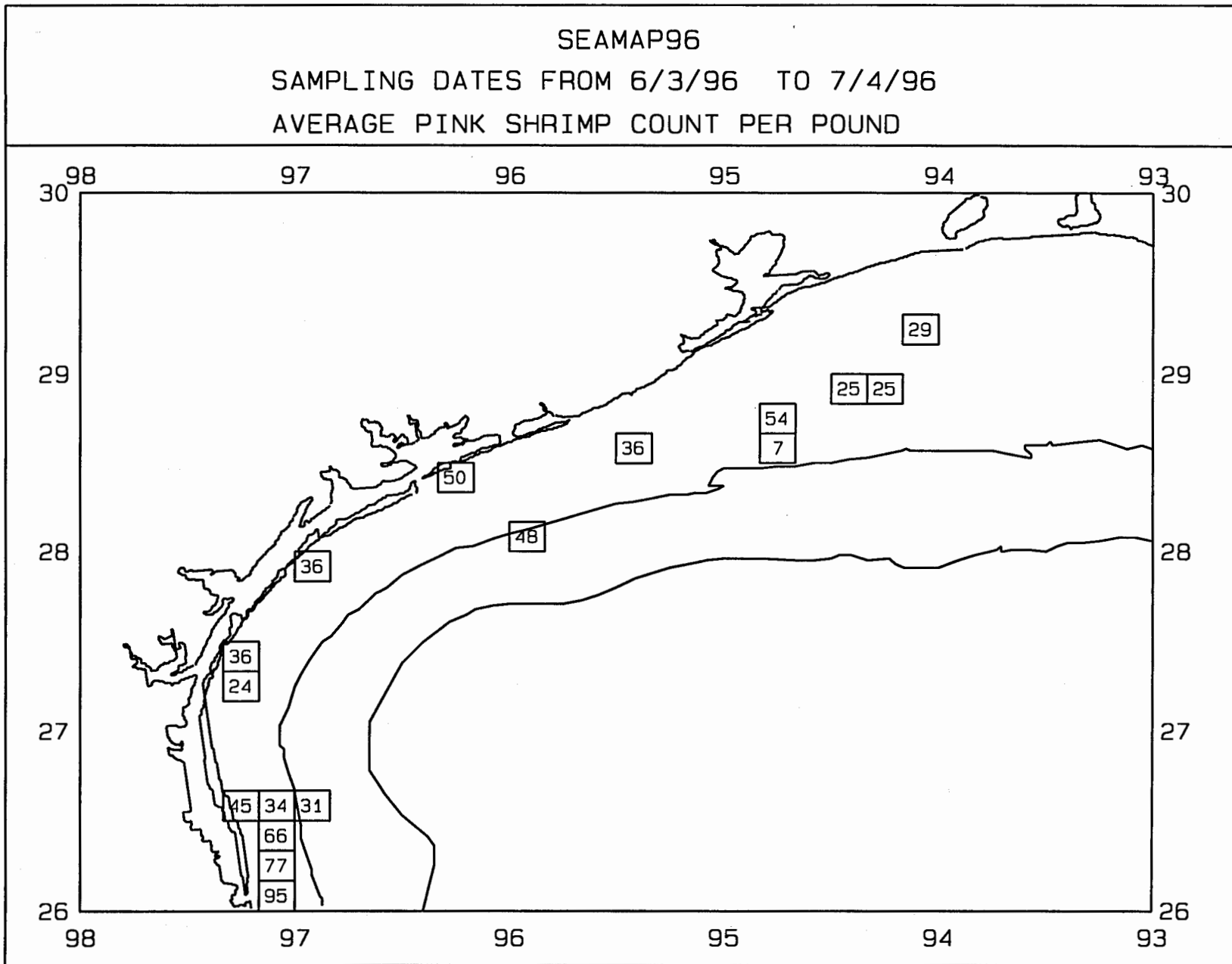


Figure 9. Real-Time Data Catch Plots, 1996

## **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 FY1996, approximately 12,870 vials have been returned from the Polish Sorting and Identification Center. Data entry for 6,407 of the returned sorted samples has been completed in an improved and simplified SEAMAP DMS. Samples cataloged to date represent 18 orders, 126 families, 235 genera and 245 species.

The SEAMAP Archiving Center, which is managed in conjunction with Florida Department of Environmental Protection (FDEP) in St. Petersburg, Florida, processes both specimen loans and requests for associated plankton survey environmental data. Five such requests have been accommodated in the present fiscal year. The FDEP is in the process of completing renovations on the existing building which houses the SEAMAP Archiving Center, allowing for expansion of the climate-controlled storage area and upgrading to current fire codes. The SEAMAP Archiving Center personnel, in cooperation with other staff from FDEP, have completed the spring ichthyoplankton survey, May 19 - 26, 1996 and will be participating in the fall ichthyoplankton cruise. The fall cruise is scheduled to depart on September 11, 1996.

## **SEAMAP Invertebrate Plankton Archiving Center**

The SIPAC is in its twelfth year of operation. Ken Stuck of GCRL serves as SIPAC curator, and was assisted during FY1995 by a part-time technician and a temporary summer student. Replacement of the permanent full-time SIPAC technician who resigned in July 1995 was delayed due to the interruption of SEAMAP funding in FY1995 resulting from the federal budget debate. 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 FY1995 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.

During FY1995, a total of 411 SEAMAP plankton samples were received and logged into the SIPAC database. The samples were obtained from the OREGON II, CHAPMAN, SUNCOASTER, TOMMY MUNRO during SEAMAP cruises. In addition, the entire collection of SEAMAP samples was inventoried, curated and computer files updated. The number of samples currently catalogued in the SIPAC collections is 5,613. Samples currently on loan include: 146 samples from various OREGON II, CHAPMAN, HERNAN CORTEZ II and SUNCOASTER cruises to S. Turner; and 7 samples from TOMMY MUNRO cruise to B. Commyns.

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 7 years and duplicate samples sorted

and received from the Polish Sorting and Identification Center, are aliquoted to 1/4 their original volume and placed into 100ml vials. When possible, the remaining 3/4 aliquots are donated to educational institutions for use as teaching materials. If the remaining sample must be discarded, sample jars are cleaned and returned to NMFS-Pascagoula for reuse. During FY1995 approximately 250 samples from 1985 SEAMAP cruises were aliquoted. To date, approximately 1,450 samples collected from 1982 - 1985 have been aliquoted and prepared for long-term storage. Due to the recent addition of samples to the collection during FY1995, there is currently no space available for additional samples to be deposited into the SIPAC archives.

Due to the loss of the permanent full-time SIPAC technician, no additional SEAMAP samples were sorted for invertebrates during FY1995. Activities in this area will resume when the technical position is filled.

During the next fiscal year, the SIPAC will continue to manage SEAMAP plankton collections and generate specimens and data on selected invertebrate species. Beginning in September 1996, and continuing through August 1997, a full-time postgraduate student will be assigned to work with the SIPAC plankton collection. It is anticipated that during FY1996, samples from the 1986 collections will be aliquoted for long-term storage, sorted invertebrate collections will be inventoried, curated and a summary report prepared on the holdings.

## **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's Executive Director.

Personnel associated with SEAMAP program management included the Coordinator, Data Manager, SEAMAP Archiving Center Curator, SIPAC Curator and the NMFS-Pascagoula Laboratory Director, serving as Program Manager.

### **Planning**

Major SEAMAP-Gulf Subcommittee meetings were held in October 1995 and March 1996, in conjunction with the Annual Fall and Spring Meetings of the GSMFC. All meetings included participation by various work group leaders, Coordinator, Data Manager, and the GSMFC Executive Director. In conjunction with the Fall GSMFC meeting, the SEAMAP Subcommittee sponsored a general session concerning the uses of fishery-independent data for fisheries management. The session was conducted on October 17, 1995. Participants from both state and federal agencies presented information regarding the use of fishery-independent data. The presentations provided very useful information regarding the different methods for utilizing this type of data as well as demonstrating the importance of fishery independent data for management of a variety of major recreational and commercial species. Subcommittee members and proxies are listed in Table 1.

Representatives from the Gulf program also met with the South Atlantic and Caribbean representatives in August 1996 to discuss respective program needs and priorities for FY1997. Minutes for all the meetings are listed in Appendix A.

SEAMAP-Gulf work groups met this past year to provide recommendations to the Subcommittee for survey and data management needs. The Red Drum Work Group met on June 28, 1996 (via conference call) to discuss the potential for being unable to conduct the second year of the red drum tag/recapture project and discuss possible alternatives for collecting the necessary data. Where additional discussion was needed, the Subcommittee also deliberated plans and needs via conference calls. Work group members are listed in Table 2.

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 FY1996. 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.



## **Proposed FY1997 Activities**

Preliminary FY1997 SEAMAP-Gulf budget allocations are shown in Table 3. Last year, total program allocations for all three SEAMAP components, Gulf, South Atlantic and Caribbean, is approximately \$1.2 million. At the August meeting, the SEAMAP components based their allocations on level funding for FY1997. At this level, the share to be allocated for SEAMAP-Gulf activities (including GSMFC) will be \$512,403.

Proposed FY1997 activities for all Gulf participants are shown in Table 4. The approved 1997 Operations Plan for SEAMAP-Gulf is contained in Appendix B. It should be noted that the SEAMAP fiscal year begins on January 1 thus, fall activities for FY1996 will be conducted from October-December 1995.

## **Information Dissemination**

The following documents were published and distributed in FY1996:

- *1996 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, 1995 to September 30, 1996*. 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, 1994 to September 30, 1995*. A summary of FY1995 activities and proposed FY1996 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.
- *Environmental and Biological Atlas of the Gulf of Mexico, 1993*. A compilation of information obtained from the 1993 SEAMAP surveys including catch rates of shrimp and finfish, abundance and distribution of plankton in the Gulf of Mexico and environmental data from all surveys.
- *Real-time Data Summaries, 1996*. Data summaries which show pounds/hour and counts of brown, pink and white shrimp caught and finfish catches during the SEAMAP Summer Shrimp/Groundfish survey.

## **FY1996 Financial Report**

Total allocations for FY1996 program administration were \$80,654. 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, 1996.

**TABLE 1.**

**SEAMAP REPRESENTATIVES FOR FY1996**

Walter M. Tatum, Chairman  
Alabama Department of Conservation and Natural Resources

proxy: Stevens Heath

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

Jim Hanifen  
Louisiana Department of Wildlife and Fisheries

Mark Leiby  
Florida Department of Environmental Protection  
Florida Marine Research Institute

Terry Cody  
Texas Parks and Wildlife Department

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

Wayne Swingle (non-voting)  
Gulf of Mexico Fishery Management Council

**TABLE 2.**

**SEAMAP WORK GROUP MEMBERS FOR FY1996**

ADULT FINFISH WORK GROUP

Terry Henwood, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Billy Fuls  
Texas Parks and Wildlife Department

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

Mark Leiby  
Florida Department of Environmental Protection

Wayne Swingle  
Gulf of Mexico Fishery Management Council

John Roussel  
Louisiana Department of Wildlife and Fisheries

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

Robert Shipp  
University of South Alabama

DATA COORDINATING WORK GROUP

Kenneth Savastano, Leader  
SEAMAP Data Manager  
National Marine Fisheries Service  
Stennis Space Center

Stevens Heath  
Alabama Department of Conservation and Natural  
Resources  
Shrimp/Groundfish Work Group

Walter Tatum  
Alabama Department of Conservation and Natural  
Resources  
Chairman, SEAMAP Subcommittee

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

Perry Thompson  
National Marine Fisheries Service  
Pascagoula Laboratory  
Environmental Data Work Group

Mike Murphy  
Florida Department of Environmental Protection  
Red Drum Work Group

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

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory  
Plankton Work Group

ENVIRONMENTAL DATA WORK GROUP

Perry Thompson, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Charles Eleuterius  
University of Southern Mississippi  
Institute of Marine Sciences  
Gulf Coast Research Laboratory

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

Scott Dinnel  
University of Southern Mississippi

Carmelo Tomas  
Florida Department of Environmental Protection

Stevens Heath  
Alabama Department of Conservation and Natural  
Resources

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

Michelle Kasprzak  
Louisiana Department of Wildlife and Fisheries

Thomas Leming  
National Marine Fisheries Service  
Pascagoula Laboratory

PLANKTON WORK GROUP

Joanne Shultz, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Churchill Grimes  
National Marine Fisheries Service  
Panama City Laboratory

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

Alonzo Hamilton  
National Marine Fisheries Service  
Pascagoula Laboratory

Rick Shaw  
Louisiana State University

Jim Hanifen  
Louisiana Department of Wildlife and Fisheries

Ken Stuck, Curator  
SEAMAP Invertebrate Plankton Archiving Center  
University of Southern Mississippi  
Institute of Marine Sciences  
Gulf Coast Research Laboratory

Don Hoss  
National Marine Fisheries Service  
Beaufort Laboratory

Mark Leiby  
Florida Department of Environmental Protection

RED DRUM WORK GROUP

Mike Murphy, Leader  
Florida Department of Environmental Protection

Phil Goodyear  
National Marine Fisheries Service  
Miami Laboratory

Mark Van Hoose  
Alabama Department of Conservation and Natural  
Resources

Larry McEachron  
Texas Parks and Wildlife Department

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

Joseph Shepard  
Louisiana Department of Wildlife and Fisheries

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

REEF FISH WORK GROUP

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

Billy Fuls  
Texas Parks and Wildlife Department

Mark Leiby  
Florida Department of Environmental Protection

Chris Gledhill  
National Marine Fisheries Service  
Pascagoula Laboratory

Mark Van Hoose  
Alabama Department of Conservation and Natural  
Resources

Richard Kasprzak  
Louisiana Department of Wildlife and Fisheries

SHRIMP/GROUNDFISH WORK GROUP

Stevens Heath, Leader  
Alabama Department of Conservation and Natural Resources

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

Butch Pellegrin  
National Marine Fisheries Service  
Pascagoula Laboratory

Billy Fuls  
Texas Parks and Wildlife Department

Nate Sanders  
National Marine Fisheries Service  
Pascagoula Laboratory

Jim Hanifen  
Louisiana Department of Wildlife and Fisheries

**TABLE 3.**  
**PRELIMINARY FY1997 PROGRAMMATIC BUDGET**

Alabama Department of Conservation and Natural Resources	68,000
Florida Department of Environmental Protection	93,840
Louisiana Department of Wildlife and Fisheries	120,700
University of Southern Mississippi/Gulf Coast Research Lab	95,495
Texas Parks and Wildlife Department	54,804
Gulf States Marine Fisheries Commission	80,654
TOTAL	\$512,403

**TABLE 4.**  
**PROPOSED SEAMAP-GULF ACTIVITIES, FY1997**

	Fall	Winter	Spring	Summer
<b>Resource Surveys:</b>				
Spring Plankton Survey			X	
Shrimp/Groundfish Surveys	X			X
Louisiana Seasonal Surveys	X	X	X	X
Fall Plankton Survey	X			
Plankton & Environmental Data Surveys	X	X	X	X
<b>Information Operations:</b>				
1995 Biological and Environmental Atlas				X
1997 Marine Directory			X	
FY1996 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

MINUTES FOR FY1996 SEAMAP MEETINGS

SEAMAP SUBCOMMITTEE MEETING  
MINUTES  
Mobile, Alabama  
October 23, 1995

Chairman Walter Tatum called the meeting to order at 1:20 p.m. The following members and others were present.

Members:

Walter Tatum, ADCNR, Gulf Shores, AL  
Mark Leiby, FDEP, St. Petersburg, FL  
Jim Hanifen, LDWF, Baton Rouge, LA  
Terry Cody, TPWD, Rockport, TX  
Richard Waller, GCRL, Ocean Springs, MS  
Joanne Shultz, NMFS, Pascagoula, MS

Others:

Buck Sutter, NMFS, St. Petersburg, FL  
Ken Savastano, NMFS, SSC, MS  
Perry Thompson, NMFS, Pascagoula, MS  
Angelá Ruple, NMFS, Pascagoula, MS  
Kevin Rademacher, NMFS, Pascagoula, MS  
Stevens Heath, ADCNR, Dauphin Island, AL

Staff:

Larry Simpson, GSMFC, Ocean Springs, MS  
Dave Donaldson, GSMFC, Ocean Springs, MS  
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

J. Hanifen will also give a report under the Environmental Work Group Report and B. Sutter will give an update on NMFS reporting requirements under Other Business. With these changes, the agenda was adopted.

Approval of Minutes

\* T. Cody asked to change Texas' input under the 5 year plan on page 3 to read "important recreational and commercial species." J. Hanifen moved to accept the minutes as amended. J. Shultz seconded and it passed unanimously.

Administrative Report

D. Donaldson reported the Reef Fish Survey is continuing to date. They have collected approximately 160 samples to date and everything is going well.

The Fall Plankton Survey was conducted from September 6 to September 29, 1995. The Survey covers Gulf waters from Florida Bay to Brownsville, Texas. Vessels from Florida, Alabama, Mississippi, Louisiana and NMFS participated. The purpose of the survey is to assess abundance and distribution of king mackerel and red drum eggs and larvae. A total of 200 stations were sampled.

The Fall Shrimp/Groundfish Survey started in October and will continue through December 1995. The purpose of the survey is to determine abundance and distribution of demersal organisms in the Gulf of Mexico. Vessels from NMFS, Louisiana, Mississippi, Alabama, and Texas participates in this survey.

All presentations have been received from the Reef Fish Work Shop and the Proceedings has been sent out for review. The Proceedings should be published and distributed later this year.

The FY95 TCC Report has been completed and distributed at this meeting. The report outlines the activities of the SEAMAP.

Work is continuing on the 1993 Atlas. Due to the conversion from A-10 to IT-95, processing has been delayed. Funds will be obligated and it will be published later this year or early next year.

D. Donaldson said he is waiting on comments from the South Atlantic and Caribbean Components for inclusion in the Joint Annual Report. It should be published later this year.

D. Donaldson reminded the Subcommittee that SEAMAP is sponsoring a general session at this GSMFC meeting scheduled for Tuesday, October 24, 1995 from 1:00 p.m. to 5:00 p.m. He said that all of the speakers are still able to attend even though the meeting week changed.

D. Donaldson informed the Subcommittee that the GSMFC is in the process of getting a home page on the Internet for access to copies of documents, minutes, meeting information, etc. and asked if the Subcommittee would be interested in sending information to each other via E-mail and once everyone has access, via internet. After discussion, it was agreed by everyone that this is a good idea and D. Donaldson should proceed. In the mean time, hard copies will still be used but eventually electronic communications will be the method of choice because it will save money and time.

#### Update of the Development of the SEAMAP 5-year Plan

\* Each Subcommittee member gave their changes/comments on the 5-year plan. D. Donaldson will incorporate the changes and mail to R. Peuser. He stated that if anyone has any other comments or changes, the deadline for inclusion will be November 17. J. Hanifen moved to request the TCC approve this document. R. Waller seconded and it passed unanimously.

#### Presentation of NMFS Reef Fish Sampling Activities

Kevin Rademacher gave a slide presentation on the NMFS/SEAMAP Reef Fish survey. He discussed the equipment they are using and said they are having some problems but they are optimistic in solving them by using multiple camera gear, lasers and an alternative counting method.

#### Status of FY1996 Funds

D. Donaldson said the house mark for SEAMAP was \$700,000 but the Senate restored funding to \$1.34 million. He said it will now go through committee but at this time it is still unknown if full funding, \$1.34 million, will be restored. L. Simpson said that Congress is going with a continuing resolution which means programs will continue at the same rate as last year. He said the final decision should be made by November 13. L. Simpson also stated that with the exception of SEAMAP, fisheries fared extremely well. W. Tatum stated that all project documents should be submitted before November 1 at a 15% reduction in funding. If full funding is restored, applicants can amend their contracts to reflect the increased funds.

#### Work Group Reports

##### Adult Finfish

P. Thompson gave a presentation on the 1995 Gulf and Atlantic Bottom Longline Shark Assessment Survey (Attachment I). They surveyed the Gulf and South Atlantic up to North Carolina. They sampled coastal sharks out to 40 fathoms using longlines. He stated they proved they can do a successful longline shark survey fairly inexpensively. All of the gear has been purchased so the main costs for future surveys will be manpower and vessel time. He said that NMFS has 48 days planned in next year's budget for a shark survey.

### Data Coordinating

Ken Savastano distributed an updated SEAMAP Data Management Report (Attachment II) and discussed it with the Subcommittee. W. Tatum suggested that the updated Attachment 12 of the report be incorporated into the 5-year plan. The SEAMAP on-line data base now contains 301 cruises with a total of 2,054,520 records (approximately 80 megabytes of data).

### Environmental Data

P. Thompson reported that the last work group meeting was held on March 7, 1995. He said that he and K. Savastano will be meeting soon to discuss modifications to the environmental data sheet. He said that NMFS will start using a data temperature recorder on the CTDs as a calibrator. They are also going to put a recorder on their bongo nets to record temperature and depths as the nets goes down and comes back up. These units cost about \$750 and after they use them for about six months they will send them to SEAMAP participants to use also.

At the March meeting the work group recommended and the Subcommittee agreed that NMFS could discontinue the extraction procedure for chlorophyll *a* sampling at each SEAMAP station and instead use a CTD fluorometer to obtain chlorophyll *a* data. For calibration purposes, it was agreed that NMFS will continue with the extraction technique once a day at noon over the range of the expected concentrations. The SEAMAP participants that don't have CTD fluorometers will continue with the extraction technique. He said that Louisiana did an analysis on the two techniques and that NMFS was also going to do an analysis, but couldn't because they lost most of their samples because the freezer was unplugged.

J. Hanifen distributed a memo that discussed analysis of samples collected during their summer and fall cruises on the laboratory fluorometric and spectrophotometric determinations of chlorophyll *a*. According to the results of the study, Louisiana feels that the use of fluorometry would not be acceptable in Louisiana waters, at least in the summer and fall, due to the underestimation of chlorophyll *a*. After discussion, it was decided that comparative studies continue before any decision is made.

P. Thompson said they are low on personnel and that is why they wanted to use the CTD fluorometer instead of the extraction method, and they didn't think there was much variability but, according to Louisiana's analysis there seems to be a problem. P. Thompson suggested that J. Hanifen and his staff, and other SEAMAP participants meet with NMFS personnel to discuss both methods and the techniques used to analyze the data to make sure everyone is collecting and analyzing the information in the same way. W. Tatum agreed they should meet to resolve this issue and asked that they inform the Subcommittee after the meeting. J. Hanifen said that he and P. Thompson will discuss the possibility of using Louisiana's laboratory and personnel to help NMFS with the back log of samples.

### Plankton

J. Shultz reported there was no work group meeting since the last report. She said the fall plankton survey was very successful and they sampled more stations than ever before.

### Red Drum

D. Donaldson said Mike Murphy was not able to come to the meeting because he is out to sea. He stated that in the handouts is the 1995 Gulf of Mexico Red Drum Aerial Survey that NMFS will be conducting through November (Attachment IV). The work group has not met since the last work group report. W. Tatum asked L. Simpson about the status of funding for the mark and recapture survey over the next two years. L. Simpson said that at this point he expects NMFS to get the funding it requested for the survey.

### Reef Fish

R. Waller told the Subcommittee that the Proceedings for the Reef Fish Workshop has been mailed out for review and the final copy will be distributed before the end of the year. He reiterated what a success the work shop was. D. Donaldson said that in the handouts is a letter (Attachment V) from Brad Bro

### Shrimp/Groundfish

S. Heath said the summer shrimp/groundfish cruises were successful. The objectives are to monitor the size distributions of penaeid shrimp during or prior to the migration of brown shrimp from bays to the open gulf, evaluate the Texas Closure, and to provide information on shrimp and groundfish stocks across the northern gulf from inshore waters to 50 fm. They sampled the eastern gulf to the Texas/Mexican border. A total of 323 trawl samples were taken out to 50 fm from Mobile Bay, AL to Brownsville, TX and all vessels recorded environmental data including temperatures, salinity, dissolved oxygen and chlorophyll at each station. The fall survey is scheduled to begin in October or November.

### Election of Officers

\* J. Shultz said that R. Waller was nominated Vice Chairman and W. Tatum Chairman. J. Hanifen moved election by acclamation. T. Cody seconded and it passed unanimously.

### Other Business

B. Sutter gave a presentation on new NMFS Southeast Noncompetitive Reporting Requirements (Attachment VI). He stated that a fax was sent to everyone on October 11 explaining the changes. He said that basically, NMFS is now requiring one performance report each fiscal year due 90 days before the end of the current budget period and a final (completion) report will be required 90 days after the end of the single or multiple budget period project.

**There being no further business, the meeting adjourned at 4:55 p.m.**

SEAMAP SUBCOMMITTEE CONFERENCE CALL  
MINUTES  
Wednesday, February 14, 1996

Chairman Walter Tatum called the meeting to order at 3:00 p.m. The following personnel were present:

Terry Cody, TPWD, Rockport, TX  
Jim Hanifen, LDWF, Baton Rouge, LA  
Mark Leiby, FMRI, St. Petersburg, FL  
Richard Waller, GCRL, Ocean Springs, MS  
Joanne Shultz, NMFS, Pascagoula, MS  
Walter Tatum, ADCNR, Gulf Shores, AL  
Scott Nichols, NMFS, Pascagoula, MS  
Larry Simpson, GSMFC, Executive Director  
David Donaldson, GSMFC, SEAMAP Coordinator

D. Donaldson stated that in a memorandum to the Regional Fishery Management Councils, it stated that the current continuing resolution (CR) provides funding at the FY1996 Conference level and that the participants will not be required to submit a new statement of work and budget for this period. The NOAA Grants Office will accept the original applications and will allow NMFS to release funding to the participants as it becomes available. The CR represents 13.4% of the year and that is the amount of funds that will be available during this period. The original start date of participants should be granted. However, the NOAA still needs to release the authority to spend so these actions can occur. Hopefully, this will happen in the near future. D. Donaldson stated that hopefully these provisions will also apply to the SEAMAP but it is not definite that will occur. There was some discussion concerning what the level of funding for 1996 would be (House or Conference mark) and apparently, no new applications will have to be submitted. In light of this information, T. Cody asked if he could begin charging time and funds to SEAMAP. W. Tatum suggested that he wait until a signed document has been received by TPWD before charging anything to SEAMAP. S. Nichols asked if any state was in trouble, financially, and could not wait until the March meeting before receiving funds. All the states reported that activities in their agencies would be okay until that time. W. Tatum stated that this was fairly good news and if S. Nichols or D. Donaldson hear anything concerning NOAA releasing the authority to spend, that they contact the SEAMAP Subcommittee as soon as possible.

D. Donaldson stated that since the Subcommittee will be meeting in conjunction with the Annual Spring Meeting, the group needs to discuss the agenda for the meeting. He stated that he had developed some items such as administrative report, status of FY1996, and Data Coordinating Work Group report and asked the Subcommittee if there were other items to be added. J. Hanifen stated that he would present an update of Louisiana's work concerning chlorophyll sampling. W. Tatum asked if S. Nichols could update the group regarding the status of NOAA Fleet and the implications for SEAMAP. And R. Waller suggested that the Subcommittee discuss various scenarios based on the final level of funding for this year.

**There being no further business, the call was adjourned at 3:30 p.m.**

SEAMAP SUBCOMMITTEE MEETING  
MINUTES  
Brownsville, Texas  
March 18, 1996

Chairman Walter Tatum called the meeting to order at 1:10 p.m. He noted that Mark Leiby, the Florida representative will not be attending the meeting. The following members and others were present.

Members:

Walter Tatum, ADCNR, Gulf Shores, AL  
Jim Hanifen, LDWF, Baton Rouge, LA  
Terry Cody, TPWD, Rockport, TX  
Richard Waller, GCRL, Ocean Springs, MS  
Joanne Shultz, NMFS, Pascagoula, MS

Others:

Scott Nichols, NMFS, Pascagoula, MS  
Buck Sutter, NMFS, St. Petersburg, FL  
Ken Savastano, NMFS, SSC, MS  
Tom Van Devender, MDMR, Biloxi, MS  
Corky Perret, LDWF, Baton Rouge, LA

Staff:

Larry Simpson, GSMFC, Ocean Springs, MS  
Dave Donaldson, GSMFC, Ocean Springs, MS  
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

Under Other Business, J. Shultz will present preliminary results on the Red Drum Aerial Survey and information on reef fish and larval king mackerel data. With these changes the agenda was adopted.

Approval of Minutes

J. Shultz asked to change the October 23 minutes under the Environmental Data report, first paragraph, third sentence to read "NMFS would like to start using a data temperature recorder. . . ." and under the last line of the same paragraph change to read "six months they would like to send them to. . ." With these changes, the October 23, 1995 minutes were approved. The February 14, 1996 conference call minutes were approved as submitted.

Administrative Report

D. Donaldson reported that several surveys are scheduled to begin. The first is the Spring Plankton Survey which covers Gulf waters from Florida Bay to Brownsville, Texas. Vessels from Florida, Alabama, Mississippi, Louisiana and NMFS will participate. The survey is scheduled to begin in April 1996 and the purpose of the survey is to assess abundance and distribution of bluefin tuna eggs and larvae.

The Summer Shrimp/Groundfish Survey is scheduled for June through July 1996. The purpose of this survey is to determine abundance and distribution of demersal organisms in the Gulf of Mexico. Vessels from NMFS, Louisiana, Mississippi, Alabama and Texas will participate in this survey.

NMFS is in the second year of the Longline Shark survey and they are studying the feasibility of conducting a shark survey in the Gulf of Mexico and South Atlantic regions. It is envisioned that SEAMAP will become involved in this activity. Mark Grace from NMFS may give a presentation of the results of the first year at the joint or fall SEAMAP meeting. One of the goals of the survey is to identify the nursery grounds in the Gulf of Mexico. He asked that during routine SEAMAP surveys, if any sharks are found with umbilical cords to please preserve the animal and

supply it to him. D. Donaldson distributed the NMFS 1996 Southeast Shark Assessment and Cruise Results on Coastal Shark Assessment (Attachment I).

T. Cody said that after discussions with M. Grace, they are interested in the neonate sharks and their nursery areas. They apparently think there are areas inshore or nearshore that have a large number of these sharks. T. Cody said he volunteered to take M. Grace and his team with them in the field to collect samples. T. Cody has also been corresponding with Charles Manire from Mote Marine Laboratory (MML) who wants TPWD to use MML tags to tag sharks during TPWD surveys.

S. Nichols has received a request to submit an initiative for FY98 and he put something together based on the 5 Year Plan. He also submitted for \$20,000 for sharks but does not know what they will receive. D. Donaldson stressed that the survey work is contingent upon receipt of funds.

The 1996 Marine Directory has been completed and was distributed to the Subcommittee. It will also be distributed to the Commissioners and Proxies, the TCC and participating agencies. The FY95 Joint Annual Report has been received from the printers and it will be distributed with the 1993 Atlas which is at the printer's now. D. Donaldson has received all presentations from the General Session except one and it should be published and distributed by mid year.

D. Donaldson reported they have received their grant which was 50% of the FY96 conference mark. No new paperwork was necessary and GSMFC received their January 1 start date.

D. Donaldson is in the process of designing the GSMFC homepage and it should be operational by mid-1996. He then explained what will be on the homepage and asked for any suggestions and comments. He said that under the data management portion, he described what the system is and then in the last paragraph he stated that if you're interested in obtaining this data to please contact K. Savastano and he put in his telephone number and e-mail address.

W. Tatum said that he was at the ASMFC office and spoke with R. Pueser about the 5 Year Plan and Executive Summary. Because of the funding situation, she has not worked on either but now that the funding has come through she should be able to proceed. D. Donaldson said the 5 Year Plan is final it just has to be published but the Executive Summary is still in rough draft and the final should be coming out shortly.

#### Status of FY1996 Funds

B. Sutter reported that he had hoped by this time NMFS would have some kind of resolution but, unfortunately the situation is still unclear. Congress passed the 50% funding and that went through without having to file additional paper work. He said that basically everything with a January, February, March and April start date was funded and if it was under \$50,000 it got 50% funding and anything over \$50,000 got 100% funding. He said if Congress does pass a continuing resolution for the rest of the year, then they will be able to process the remaining 50% of the grant.

D. Donaldson reminded everyone that at the last meeting they decided to submit for a 15% cut in funding so they got 50% of that. He said the conference mark was closer to a 12 or 13% cut and asked if the contracts should be amended to get the additional money. B. Sutter suggested to just wait and see what is approved. Questions were asked about what happens if the Continuing Resolution continues, taxes, new rules, etc. and B. Sutter suggested to contact John Oliver to keep up to date. S. Nichols said that if a continuing resolution is passed for the duration of this fiscal year we'll be authorized to spend at whatever level is authorized. B. Sutter and L. Simpson said that it is their understanding that the next continuing resolution should be for a longer duration and it was suggested by many people to fund at the conference mark. L. Simpson also commented that NOAA and fisheries is in very good shape as far as money is concerned.

B. Sutter then noted all of the time and effort and the great job Judy Sherbino did to get all the paper work out quickly when the CR passed. W. Tatum said they appreciate all the work they did and would be sure to give Ms.



Sherbino some thanks or at least some type of acknowledgment for her effort. He then asked B. Sutter to inform D. Donaldson of any new information he may receive on this subject.

The Subcommittee discussed what should be done if they don't get the additional 50% funding. They all agreed the long term trawling data base should be protected. After a lengthy discussion, the Subcommittee decided to operate normally as if they were getting full funding. B. Sutter said telephone calls and letters from the states to the regional office or headquarters may help in letting them know what an important effort this is.

#### Update on Louisiana's Work Regarding Chlorophyll Sampling

\* J. Hanifen distributed two handouts (Attachment 2) on the Comparison of Spectrophotometry and Benchtop Fluorometry for Measuring Concentrations of Chlorophyll  $\alpha$  and discussed the results, conclusions and recommendations in the handouts. He stated he still has concerns about the integrity of the long term data sets if they change methods at this point without thoroughly understanding the relationship between the two different methods. He said he understands the problems NMFS and the states are having with funding and personnel and said Louisiana has the personnel and lab facilities to do the chlorophyll samples but they would need support. After a lengthy discussion, R. Waller moved that NMFS should run both chlorophyll sampling methods if financially possible and encourage LDWF to continue their comparisons on the methods. J. Shultz seconded and after discussion the motion passed unanimously. T. Cody informed the committee that if need be, Texas will not participate in collecting the sample for a year because they are already a year behind because most of their samples from last year were lost or destroyed.

#### Status of NOAA Fleet and Implications to the SEAMAP

S. Nichols said the NOAA Corp, which operates the fleet, has been told by memo from their head admiral to expect to start disbanding starting October 1. Apparently, certain interests believe contracting the work will save money. He said there could be a problem in fisheries because they are not aware of anybody who can handle this type of sampling. He said he expects the NOAA Corp to be out of uniform sometime next year but in the short term we should be working with the same people and vessels. He said it's possible that we could end up working the same vessels just managed by someone else. He is convinced we will be able to function as long as the fishing community believes there is a need to do this work.

#### Data Coordinating Work Group

K. Savastano distributed the SEAMAP Data Management Report and asked that everyone check the data for 1982-1994 to see if it is comparable with their agency and inform him of any discrepancies. He said that Attachment 11 shows where they were in October and Attachment 12 shows where they are now. He said the only real change they've had since October is in the 1995 data--they picked up about 100 thousand records which is about a half a year's data. There is a lot of work that's not showing up because it hasn't been completed due to cut backs in personnel. They have just about terminated going backwards (because of limited resources and cuts in personnel). He said they are trying to focus on the data that is currently coming in but if they go to contracting they may be able to go back and do Louisiana, Texas and Florida. He said that with the resources they currently have they are trying to focus on getting the system converted to ORACLE. He said that in the meantime they will take the other processing resources that they have and focus on the 1994 atlas and the real time data. They only have one production person on staff who eventually will be going to contracting. Entry and edit will have to be shifted around to whoever is left.

K. Savastano then reviewed the rest of his report. W. Tatum commended him on the thorough job he has done in presenting this information considering his lack of personnel and resources.

#### Other Business

Red Drum Aerial Survey - J. Shultz reported that a rough draft report of the red drum aerial survey is completed. The survey took place September 18 - December 2, 1995. She showed transparencies of the preliminary results but did not distribute because it is not in its final form. She said that because of the weather the actual flight days were cut by 2/3. The final report should be available within 2 weeks and will be distributed.

Larval Fish Data - J. Shultz showed one transparency with the 1993 data from three of the eight cruises from the Summer Shrimp/Groundfish and the Fall Plankton Survey. It showed the mean abundance of king mackerel larvae. She said they sent an initial cut to Joe Powers in Miami and he seemed interested in using this in their stock assessments.

Reef Fish - J. Shultz said they lost time on the CHAPMAN and other earlier surveys so they have 14 days scheduled in May to do a very intensive video survey of the Flower Gardens and associated areas. She said they are going to choose their sights in a randomly depth stratified regime to look at the effect on depth on reef fish. T. Cody asked what was the proper procedure for returning his old SEAMAP machine. K. Savastano said to return it and sign the loan agreement to close it out. K. Savastano then stressed the importance of standardizing all the SEAMAP component's hardware--they should all be compatible and he gave an example of problems they had when the ASMFC bought new PC's.

**There being no further business, the meeting adjourned at 5:05 p.m.**

SEAMAP SUBCOMMITTEE CONFERENCE CALL  
MINUTES  
Thursday, May 30, 1996

Chairman Walter Tatum called the meeting to order at 1:30 p.m. The following personnel were present:

Terry Cody, TPWD, Rockport, TX  
Jim Hanifen, LDWF, Baton Rouge, LA  
Mark Leiby, FMRI, St. Petersburg, FL  
Richard Waller, GCRL, Ocean Springs, MS  
Joanne Shultz, NMFS, Pascagoula, MS  
Walter Tatum, ADCNR, Gulf Shores, AL  
Scott Nichols, NMFS, Pascagoula, MS  
Terry Henwood, NMFS, Pascagoula, MS  
Perry Thompson, NMFS, Pascagoula, MS  
David Donaldson, GSMFC, Ocean Springs, MS

D. Donaldson stated that the topic of the conference call is the possible discontinuation of the long-term collection of chlorophyll. He stated that J. Hanifen was concerned about this possibility and thus the need for the conference call. The group discussed the issue and S. Nichols stated the long-term goal is to develop calibration factors between the spectrophotometric and fluorometric methods for collecting chlorophyll. The group discussed this issue and agreed that this should be a long-term goal of the program. The NMFS and Louisiana will continue working on this issue and periodically present their results to the Subcommittee. Although this is an important issue, W. Tatum suggested and the group agreed to initially focus on their effort on the immediate problem of collecting chlorophyll during the Summer Shrimp/Groundfish Survey. T. Henwood stated that the reason the NMFS cannot continue to collect chlorophyll at each station is due to lack of personnel onboard the NOAA ships. The NMFS has been losing personnel and not been able to replace them. Therefore, there will only be 7 scientific personnel onboard for the Summer Shrimp/Groundfish Survey (usually there are at least 10 personnel). T. Henwood stated that it would be necessary to have 3 additional personnel to collect the necessary chlorophyll data. W. Tatum suggested that the states provide personnel from their agencies to participate in the Summer Shrimp/Groundfish Survey. He stated that Alabama would probably be able to provide a person to participate. J. Hanifen said that Louisiana would probably be able to place someone on board also. R. Waller, M. Leiby, and T. Cody stated that they would check but it would be very unlikely that personnel from their states could participate. All members will check within their agencies and contact D. Donaldson by June 5, 1996 if they will be able to provide personnel for the survey. It was agreed that if only 2 extra people could be found to participate in the survey (a likely scenario), the NMFS will conduct only 2/3 of the chlorophyll sampling. The next issue addressed by the group concerned the processing of the chlorophyll samples. There is no longer personnel at the NMFS dedicated to process chlorophyll samples. Currently, Louisiana and Florida process SEAMAP chlorophyll samples within their agency. R. Waller stated Mississippi has the personnel but need several pieces of equipment to process chlorophyll samples. It was suggested that the Mississippi personnel utilize the NMFS-Pascagoula Laboratory equipment to process the samples. R. Waller stated that he could process Mississippi's and Alabama's samples. The group discussed the possibilities for processing Texas samples. After some deliberations, the group agreed that Texas would reduce its samples by 50% (240 samples to 120 samples) and continue to send them to NMFS-Pascagoula. R. Waller stated that with the reduction of Texas samples, Mississippi might be able to process Texas samples as well as others.

S. Nichols stated the budget situation for the NMFS is very critical. To date, a leg of one cruise had to be canceled since funding has not been received by the agency. The NMFS is in a several budget deficit. The NMFS may have to curtail or delay several surveys due to the situation. One possible solution would be to delay distributing SEAMAP funds to the states and commission until October 1, 1996. He stated that hopefully it will not be necessary to use this method and would talk with each agency about this possibility.

**There being no further business, the call was adjourned at 2:35 p.m.**



APPENDIX B

1997 SEAMAP OPERATIONS PLAN

## SEAMAP-GULF OF MEXICO

### OPERATIONS PLAN

January 1, 1997 - December 31, 1997

#### 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, 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: 1996-2000* is currently being 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*, *SEAMAP Operations Plan: 1985-1990* and *SEAMAP Management Plan: 1985-1990* 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: 1996-2000* and remain as key missions:

- (1) Collect long-term standardized fishery-independent data on the condition of regional living marine resources and their environment;
- (2) Cooperatively plan and evaluate SEAMAP-sponsored activities;
- (3) Identify and describe existing non-SEAMAP data bases and activities that are of value in fishery-independent assessments of regional living marine resources;
- (4) Operate the SEAMAP Information System for efficient management and timely availability of fishery-independent data and information; 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. This eighth SEAMAP-Gulf Annual Operations Plan describes planned activities and events for the period January 1, 1997 through December 31, 1997. 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: 1996-2000*.

## **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 clupeids. Station locations are in a systematic grid across the northern Gulf in increments of 30 minutes latitude/longitude. Frontal satellite-determined boundary locations are also sampled during the spring survey.

Plankton samples will be taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consists of two conical 61-cm nets with 333 micron mesh. Tows are oblique, surface to 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. All plankton samples are to be initially preserved in 10% buffered formalin and after 48 hours transferred to 95% ethyl alcohol for final preservation. Hydrographic data at all stations will include at a minimum chlorophylls, salinity, temperature and dissolved oxygen, and water color, using the Forel-ule test.

Right bongo samples and neuston samples collected in 1997 from SEAMAP stations will be transshipped by the NMFS Pascagoula Laboratory to the Polish Sorting and Identification Center for sorting and identification, after which they will be returned to 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 Gulf Coast Research Laboratory in Ocean Springs, Mississippi.

### Reef Fish Survey

The objectives of the survey are:

- (1) assess relative abundance and compute population estimates of reef fish using a video/trap technique;
- (2) determine habitat using an echo sounder and video camera;
- (3) determine if bioacoustics assessment methodology can be applied to reef fish communities;
- (4) collect environmental data at each station; and
- (5) collect ichthyoplankton samples at selected reef sites.

The primary purpose of this survey is to assess the relative abundance and compute population estimates of reef fish. Stations are randomly-selected 100 m<sup>2</sup> sites which are designated as "reef areas". Data is collected using the trap/video methodology where a fish trap containing a video camera is deployed onto the selected reef site. Trap soak time is one hour. In addition, hydrographic and plankton data will be collected.

#### 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 "Texas Closure" management measure 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 50 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 eggs and 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. Louisiana will take plankton samples at each trawl station.

#### 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 eggs and larvae of commercial and recreationally important species.

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



### Louisiana Seasonal Day/Night Trawl Surveys

These surveys provide comparative information on the abundance and distribution of critical life stages of major Gulf of Mexico species, especially shrimp, and associated environmental parameters.

Sampling will be conducted in March\*, July, October and December 1997. A stratified random station design with a total of 48 planned locations will be sampled at day and night with 40-ft nets. Stations will be randomly selected. The July sampling will be conducted as part of the SEAMAP Summer Shrimp/Groundfish Survey.

All organisms are identified, weighed and measured. Plankton and environmental sampling are conducted at all stations. Processing of environmental data including bottom sediments and surface and bottom chlorophylls will be done at Louisiana Department of Wildlife and Fisheries (LDWF). Plankton samples will be sorted and identified for ichthyoplankton at the LDWF Plankton Laboratory. Specimens and data will be shipped to the SEAMAP Archiving Center.

### **OPERATIONS**

The following activities and events by participant comprise the SEAMAP-Gulf of Mexico operations schedule for the period January 1, 1997 to December 31, 1997:

#### Texas Parks and Wildlife Department

- (1) Summer Shrimp/Groundfish Survey: June-July, 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) Seasonal trawl surveys: March\*, July, October and December (July in conjunction with Summer Shrimp/Groundfish Survey)
- (2) Plankton sampling in conjunction with trawl surveys
- (3) Plankton sample sorting and identification
- (4) Attend SEAMAP Subcommittee and work group meetings as scheduled and provide assistance to SEAMAP Subcommittee

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\*Contingent on funding.

- (5) Process sediment and chlorophyll samples
- (6) Data inventory, entry, edit and transmit to mainframe all SEAMAP cruise information

#### Gulf Coast Research Laboratory

- (1) Summer Shrimp/Groundfish Survey: June and July, Gulf waters
- (2) Fall Plankton Survey: September, nearshore and offshore Gulf waters
- (3) Fall Shrimp/Groundfish Survey: November, Gulf waters
- (4) Reef Fish Survey: June/July, 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: November, nearshore Gulf waters
- (4) Reef Fish Survey: sampling in nearshore Alabama waters
- (5) Plankton sampling in conjunction with trawl surveys
- (6) Quarterly estuarine shrimp/groundfish sampling
- (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

#### Florida Department of Environmental Protection

- (1) Spring Plankton Survey: May, nearshore/offshore Gulf waters off Florida
- (2) Fall Plankton Survey: September, nearshore/offshore Gulf waters

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\*Contingent on funding.

- (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: March-July, 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) Environmental sample processing
- (10) Real-time data processing
- (11) 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: 1996-2000*. 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 insuring 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 1996-2000*.

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; and
- (7) Real-time Data Summaries of the Summer Shrimp/Groundfish Survey.

## **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 1997:

- (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: 1996-2000*. Designated members for 1997 are:

Texas Parks and Wildlife Department:	Terry Cody
Louisiana Department of Wildlife and Fisheries:	Jim Hanifen
Gulf Coast Research Laboratory:	Richard Waller
Alabama Department of Conservation & Natural Resources:	Walter Tatum
Florida Department of Environmental Protection:	Mark Leiby
National Marine Fisheries Service:	Joanne Shultz
Gulf of Mexico Fishery Management Council:	Wayne Swingle (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 1997 are:

#### ADULT FINFISH WORK GROUP

Terry Henwood  
National Marine Fisheries Service  
Pascagoula Laboratory

Billy Fuls  
Texas Parks and Wildlife Department

Mark Leiby  
Florida Department of Environmental Protection

John Roussel  
Louisiana Department of Wildlife and Fisheries

Robert Shipp  
University of South Alabama

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

Wayne Swingle  
Gulf of Mexico Fishery Management Council

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

DATA COORDINATING WORK GROUP

Kenneth Savastano, Leader  
SEAMAP Data Manager  
National Marine Fisheries Service  
Stennis Space Center

Stevens Heath  
Alabama Department of Conservation and Natural  
Resources  
Shrimp/Groundfish Work Group

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

Mike Murphy  
Florida Department of Environmental Protection  
Red Drum Work Group

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory  
Plankton Work Group

Perry Thompson  
National Marine Fisheries Service  
Pascagoula Laboratory  
Environmental Data Work Group

Walter Tatum  
Alabama Department of Conservation and Natural  
Resources  
Chairman, SEAMAP Subcommittee

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

ENVIRONMENTAL DATA WORK GROUP

Perry Thompson, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Charles Eleuterius  
University of Southern Mississippi  
Institute of Marine Sciences  
Gulf Coast Research Laboratory

Scott Dinnel  
University of Southern Mississippi

Stevens Heath  
Alabama Department of Conservation and Natural  
Resources

Michelle Kasprzak  
Louisiana Department of Wildlife and Fisheries

Thomas Leming  
National Marine Fisheries Service  
Pascagoula Laboratory

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

Carmelo Tomas  
Florida Department of Environmental Protection

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

PLANKTON WORK GROUP

Joanne Shultz, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Churchill Grimes  
National Marine Fisheries Service  
Panama City Laboratory

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

Alonzo Hamilton  
National Marine Fisheries Service  
Pascagoula Laboratory

Rick Shaw  
Louisiana State University

Jim Hanifen  
Louisiana Department of Wildlife and Fisheries

Ken Stuck, Curator  
SEAMAP Invertebrate Plankton Archiving Center  
University of Southern Mississippi  
Institute of Marine Sciences  
Gulf Coast Research Laboratory

Don Hoss  
National Marine Fisheries Service  
Beaufort Laboratory

Mark Leiby  
Florida Department of Environmental Protection

RED DRUM WORK GROUP

Mike Murphy, Leader  
Florida Department of Environmental Protection

Phil Goodyear  
National Marine Fisheries Service  
Miami Laboratory

Joanne Shultz  
National Marine Fisheries Service  
Pascagoula Laboratory

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

Larry McEachron  
Texas Parks and Wildlife Department

Joseph Shepard  
Louisiana Department of Wildlife and Fisheries

Mark Van Hoose  
Alabama Department of Conservation and Natural  
Resources

REEF FISH WORK GROUP

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

Billy Fuls  
Texas Parks and Wildlife Department

Mark Leiby  
Florida Department of Environmental Protection

Chris Gledhill  
National Marine Fisheries Service  
Pascagoula Laboratory

Mark Van Hoose  
Alabama Department of Conservation and Natural  
Resources

Richard Kasprzak  
Louisiana Department of Wildlife and Fisheries

SHRIMP/GROUNDFISH WORK GROUP

Stevens Heath, Leader

Alabama Department of Conservation and Natural Resources

Billy Fuls  
Texas Parks and Wildlife Department

Butch Pellegrin  
National Marine Fisheries Service  
Pascagoula Laboratory

Jim Hanifen  
Louisiana Department of Wildlife and Fisheries

Nate Sanders  
National Marine Fisheries Service  
Pascagoula Laboratory

Bruce Comyns  
University of Southern Mississippi  
Institute of Marine Sciences  
Gulf Coast Research 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: 1996-2000*.

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: 1996-2000*, 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: 1996-2000*.

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.