

Fifty-Eighth Annual Report of the Gulf States Marine Fisheries Commission

For the Year 2007



The GULF STATES MARINE FISHERIES COMMISSION is an organization of the five states whose coastal waters are the Gulf of Mexico. This Compact, authorized under Public Law 81-66, was signed by the representatives of the Governors of the five Gulf States on July 16, 1949, at Mobile, Alabama. The Commission's principal objectives are the conservation, development, and full utilization of the fishery resources of the Gulf of Mexico to provide food, employment, income, and recreation to the people of these United States.

GULF STATES MARINE FISHERIES COMMISSION

Fifty-Eighth Annual Report
(2007)

*to the
Congress of the United States
and to the
Governors and Legislators
of
Alabama, Florida, Louisiana, Mississippi, and Texas*

Presented in compliance with the terms of the Compact and State Enabling Acts Creating such Commission and Public Law 66-81st Congress assenting thereto.



Edited by:

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Preserving the Past ▪ Planning the Future ▪ A Cooperative Effort

Charles H. Lyles Award

The *Charles H. Lyles Award* is awarded annually by the Gulf States Marine Fisheries Commission (GSMFC) to an individual, agency, or organization which has contributed to the betterment of the fisheries of the Gulf of Mexico through significant biological, industrial, legislative, enforcement, or administrative activities.

The recipient is selected by the full Commission from open nominations at the spring March meeting. The selection is by secret ballot with the highest number of votes being named the recipient. The recipient is awarded the honor at the annual meeting in October.

CHARLES H. LYLES Award Recipients

Charles H. Lyles	1984
Theodore B. Ford	1985
J.Y. Christmas	1986
John Breaux	1987
John Ray Nelson	1988
I.B. "Buck" Byrd	1989
Hugh A. Swingle	1990
John A. Mehos	1991
J. Burton Angelle	1992
Louis A. Villanova	1993
Theodore H. Shepard	1994
Edwin A. Joyce, Jr.	1995
Tommy D. Candies	1996
Walter M. Tatum	1997
Thomas L. Heffernan	1998
Trent Lott	1999
James Barkuloo	2000
Walter Fondren, III	2001
Jerald K. Waller	2002
Andrew J. Kemmerer	2003
Hal Osburn	2004
Leroy Kiffe	2005
Robert P. Jones	2006
Wayne E. Swingle	2007

Acknowledgements

In submitting this Fifty-Eighth Annual Report, the Commissioners wish to express their most sincere appreciation for the splendid cooperation of the Members of Congress and the Governors and Legislators of the Compact states. The Commission fully appreciates that such measure of success as has been attained in the past fifty-eight years could not have been possible without such valued assistance. This acknowledgement is also extended to the directors and staffs of federal, state, and interstate agencies, and to representatives of all organizations and individuals who have contributed to the realization of the objectives of the Gulf States Marine Fisheries Commission.

Respectfully submitted,

Vernon Minton, *Chairman*
Ralph Rayburn, *Vice Chairman*
Joe Gill, Jr., *Second Vice Chairman*
Larry B. Simpson, *Executive Director*

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Commission Roster

Commission Officers

Chairman: Vernon Minton

First Vice Chairman: Ralph Rayburn

Second Vice Chairman: Joe Gill, Jr.

Commissioners

(order of listing – administrator, legislator, governor’s appointee)

ALABAMA

Barnett Lawley
Alabama Department of Conservation &
Natural Resources
Montgomery, Alabama

Spencer Collier
Alabama House of Representatives
Irvington, Alabama

Chris Nelson
Bon Secour Fisheries
Bon Secour, Alabama

FLORIDA

Ken Haddad
Florida Fish & Wildlife Fisheries
Commission
Tallahassee, Florida

Will S. Kendrick
Florida House of Representatives
Carrabelle, Florida

Hayden R. Dempsey
Greenberg Taurig, P.A.
Tallahassee, Florida

LOUISIANA

Bryant O. Hammett, Jr., Secretary
Louisiana Department of Wildlife &
Fisheries
Baton Rouge, Louisiana

Butch Gautreaux
Louisiana Senate
Morgan City, Louisiana
Wilson Gaidry
Houma, Louisiana

MISSISSIPPI

William Walker
Mississippi Department of Marine
Resources

Biloxi, Mississippi
Tommy Gollott
Mississippi Senate
Biloxi, Mississippi

Joe Gill, Jr.
Joe Gill Consulting, LLC
Ocean Springs, Mississippi

TEXAS

Ann Bright, Acting Executive Director
Texas Parks & Wildlife Department
Austin, Texas

Legislative Representative-To Be Appointed

Ralph Rayburn
Texas Sea Grant College Program
College Station, Texas

Staff

Larry B. Simpson, *Executive Director*

Ronald R. Lukens/David M. Donaldson, *Assistant Directors*

Virginia K. Herring, Administrative Officer
Nancy K. Marcellus, Administrative Assistant
Cheryl R. Noble, Staff Assistant
Madeleine A. Travis, Staff Assistant
Teri L. Freitas, Staff Assistant
Deanna L. Valentine, Data Entry Clerk
Gayle E. Jones, Receptionist
Wendy L. Garner, Staff Accountant
David L. Rice, III, Program Manager

Steven J. VanderKooy, Program Coordinator
Jeffrey K. Rester, Program Coordinator
Ralph E. Hode, Program Coordinator
Gregory S. Bray, Programmer/Analyst
Robert W. Harris, Programmer/Analyst
Douglas J. Snyder, Survey Coordinator
Donna B. Bellais, Survey Coordinator
Joseph P. Ferrer, III, Network Administrator

Active Committees

Executive Committee.....	Vernon Minton Ralph Rayburn Joe Gill John Roussel Virginia Vail
Law Enforcement Committee.....	J.T. Jenkins, Chairman
Commercial/Recreational Fisheries Advisory Panel.....	Philip Horn, Commercial Chairman Grey Cane, Recreational Chairman
State-Federal Fisheries Management Committee.....	Larry B. Simpson, Facilitator
Menhaden Advisory Committee.....	Rick Schillaci, Chairman
Striped Bass Technical Task Force.....	Doug Frugé, Chairman
Stock Assessment Team.....	Joe Shepard, Chairman
Technical Coordinating Committee.....	William S. Perret, Chairman
TCC Artificial Reef Committee.....	Steve Heath, Chairman
TCC Crab Subcommittee.....	Traci Floyd, Chairman
TCC Data Management Subcommittee.....	Michelle Kasprzak, Chairman
TCC Habitat Subcommittee.....	Heather Warner-Finley, Chairman
TCC SEAMAP Subcommittee.....	Jim Hanifen, Chairman

GULF STATES MARINE FISHERIES COMMISSION **EXECUTIVE DIRECTOR'S REPORT** *Larry B. Simpson, Executive Director*

2007 was a good year for the Commission. We had good programmatic progress that helped the living marine resources of this region. We were tasked, once again, with an additional \$85 million dollars to assist the Gulf of Mexico region with disaster relief for the shrimp and fishing industry devastated by Hurricanes Katrina and Rita in the fall of 2005. These funds, which were approved by Congress in July of 2007, are to provide at least 2% of the amount to the States for distribution of additional payments to fishermen with a demonstrated record of compliance with turtle excluder and bycatch reduction devices. Also, the funds are for personal assistance to impacted fishermen, to small businesses, fishermen and processors and related business serving the fishing industry, domestic product marketing and seafood promotion, state seafood testing programs, and the development of limited entry programs for the fishery.

always been on the leading edge of improvements in marine recreational data collection and welcomes this new effort; prompted by a National Research Council review of recreation data collection. Efforts have begun to replace the Marine Recreation Fisheries Survey (MRFFS) with a completely new updated and improved survey we are calling the Marine Recreational Information Program (MRIP). Our region is piloting an initiative to utilize state fishing licenses as a sampling frame to improve the precision and accuracy of recreational fishing effort estimates, thereby lowering the uncertainty around these estimates.

As always, marine fisheries is an interesting, dynamic and challenging field, and that's why I like.

Here is the distribution of funds, as directed by the Department of Commerce:

Louisiana	\$41,000,000	48.2%
Mississippi	\$25,000,000	29.4%
Alabama	\$15,000,000	17.6%
Florida	\$ 2,000,000	2.4%
Texas	\$ 1,200,000	1.4%
	<u>\$ 715,000*</u>	.8%
	\$84,915,000	

*Administration GSMFC

This is worthy, needed and necessary work and we are proud to be a part of it. These Congressionally supported and directed funds will make the Gulf's fisheries somewhat stable and will help them transition from destruction to working again.

In 2007 we saw changes in the staff leadership in the office. Ron Lukens, my Assistant Director, retired and moved to Florida in March; after serving twenty years with the Commission. Dave Donaldson was selected to replace Ron as the Assistant Director and will continue to manage the data programs, while assuming the Assistant Directors administrative duties. In April, David L. Rice, III was hired as the Sport Fish Program coordinator.

I am once again challenged by the wholesale redesign of the marine recreational data collection programs that are being addressed nationwide. The Gulf has

EMERGENCY DISASTER RECOVERY PROGRAM

Ralph E. Hode, Program Coordinator

In 2007 the Gulf States received yet another boost in Congressional support providing much needed assistance for the fisheries recovery efforts in the Gulf of Mexico, following the devastating storms of 2005. Appropriations were approved by Congress in July of 2007, under the Homeland Security Act, for an additional \$85 million to NOAA's National Marine Fisheries Service to provide assistance to the impacted fishermen, fishery related businesses and industries in the Gulf. When combined with the \$127 million in 2006, the appropriation for resource recovery, the total Disaster Recovery funding level in the Gulf States increased to nearly \$212 million.

The Gulf States Marine Fisheries Commission, working with the National Marine Fisheries Services, is charged with coordinating the distribution of these funds, based on NOAA approved Statements of Work and Sub-award Agreements. The Commission will also monitor the recovery efforts under way in each of the five Gulf States programs and provide required reports to NOAA over the next five years.

While uses of the funds under the two programs differ, the first program (EDRP I) was dedicated to resource recovery and the second (EDRP II) is focused on aid to the fishermen and the processor

community; both share the common goal of helping fishermen sustain and remain in the industry, at a time when they are also adjusting to increased fuel prices and competitive prices from foreign markets. As a result, a broad spectrum of qualified commercial fishermen in the Gulf are able to receive financial assistance in 2007; to help them recover from the loss of income as the resource is restored and markets are re-established.

Resource Restoration and Rehabilitation-EDRP I

A significant portion of the reimbursements to the States during 2007, under EDRP I, has been in the form of incentives to displaced fishermen for participation in the resource rehabilitation process and includes payments for debris removal, catch per unit effort reports, oyster relays, cultch plants and rehabilitation, surveying and marking of private oyster lease areas. The following tables are indicative of the planned distribution of funds over the life of the grant and those areas in which the states concentrated on during the 2007 year. As indicated, of the nearly \$31 million reimbursed to the States in 2007, approximately 45 percent was utilized in oyster restoration programs. Nearly equal amounts were expended in both cooperative research and in habitat restoration in the impacted fishing grounds.

Planned Utilization of Funding October 1, 2006 through September 30, 2011

EDRP I

State	Oyster Recovery	Cooperative Research	Shrimp and Shellfish Recovery	State Totals
Florida	2,994,700.00	425,033.00	813,600.00	4,233,333.00
Alabama	7,116,306.00	6,224,706.00	2,829,873.00	29,633,333.00
		5,342,093.00	8,120,355.00	
Mississippi	15,000,000.00	10,041,667.00	12,000,000.00	37,041,667.00
Louisiana	22,900,000.00	5,000,000.00	25,016,667.00	52,916,667.00
Texas	1,814,910.00	382,800.00	997,260.00	3,194,970.00
Total	\$49,825,946.00	\$27,416,300.00	\$49,777,755.00	\$127,019,970.00
Percentage	39.23%	21.58%	39.19%	100%

Source: Final Sub-award agreements for each of the five Gulf States as approved by NOAA and on file in the GSMFC Administrator's office.

2007 Expenditures by Category – EDRP I

State	Oyster Recovery	Shrimp and Shellfish Recovery	Cooperative Research	Total
Florida	22,542.19		47,060.25	47,060.25
Alabama	1,023,769.74	188,704.19	1,055,697.83	2,268,171.76
		3,732.54	3,046,454.70	3,050,187.24
Mississippi	6,338,822.22	6,437,547.06	3,758,402.72	16,534,772.00
Louisiana	7,340,107.09	1,159,123.53	84,550.64	8,583,781.26
Texas	222,640.25			222,640.25
Total	\$13,901,569.56	\$7,789,107.32	\$7,992,166.14	\$30,706,612.76
% of total expenses 2007	45.3	25.4	26.0	

Measurable accomplishments in the recovery effort in 2007, for which EDRP I reimbursements were made, and are reflected as follows:

- Nearly 1300 acres of public oyster grounds rehabilitated through cultch plants, oyster relays, including some 75,000 sacks of seed oysters, and sediment and debris removal;
- An excess of 1100 derelict and abandoned crab traps were removed from near shore waters;
- Approximately 130 square miles of nearshore waters were surveyed and cleaned of residual storm debris, which impaired fishing efforts and is a hazard to navigation;
- An estimated 240 pyramid type artificial fishing reef structures were installed in offshore waters along with numerous associated rubble structures;
- A total of 29 inshore/nearshore low-profile artificial fishing reefs, totaling nearly 290 acres of water bottom, were installed utilizing limestone materials as well as concrete rubble donated by area cities;
- Nearly 35,000 CPUE and stock recovery monitoring reports were received from area commercial and recreational (charter boat and guide boat) operators during the 2007 year; effectively establishing a database from which to monitor stock recovery over the next several years.

- Work continued on both an Oyster Larvae dispersal study in Pensacola Bay and a Fish Larvae impact study based on sudden or drastic environmental changes, that may be brought on by storm surges and related factors such as temperature and salinity changes.

Recovery efforts in 2008 are expected to be much the same as those of 2007. Significant funding is planned for the oyster recovery program, along with related reef monitoring to determine the success of work from the previous 12 to 18 months. Further installations of inshore artificial reefs along with assessment of those installed in 2007; and continued fishermen assistance in the form of catch per unit effort reporting is expected in 2008.

Assistance to Fishermen and related Business and Industry - EDRP II

Each of the Gulf States played an instrumental role by providing statements of work and related budgets in a timely manner, giving GSMFC administrative staff and NMFS the opportunity to meet mandated time constraints, inherent to the Congressional Budget Hearings of late 2007. The necessary formal agreements and individual State sub-awards under the second supplemental appropriation (EDRP II) were submitted to NOAA in November 2007.

Planned Utilization of Funding December 1, 2007 through November 30, 2012
EDRP II

State	Economic Assistance for Fishermen	Assistance for Commercial Businesses & Industry	Additional Assistance for TED/BRD Compliance	Domestic Product Marketing and Seafood Testing	State Totals
Louisiana*	39,979,091.00			1,293,909.00	41,273,000.00
Texas	1,173,000.00		27,000.00		1,200,000.00
Florida	460,000.00	1,500,000.00	40,000.00		2,000,000.00
Mississippi**	6,300,000.00	14,000,000.00	750,000.00	3,950,000.00	25,000,000.00
Alabama***	3,900,000.00	10,800,000.00	300,000.00		15,000,000.00
Total	51,812,091.00	26,300,000.00	1,117,000.00	5,243,909.00	84,473,000.00
Percentage	61.34%	31.13%	13.22%	6.2%	

Source: Final Sub-award agreements for each of the five Gulf States as approved by NOAA and on file in the GSMFC Administrator's office.

*Louisiana's **Economic Assistance for Fishermen Program** includes two percent (\$825,460.00) to qualified participants for TED/BRD compliance and provides assistance to fishermen, fisheries related business and industry;

Mississippi's **Domestic Product Marketing Program includes \$3,400,000 for testing and \$550,000 for domestic product marketing;

***Alabama's **Economic Assistance for Fishermen Program** is an indirect assistance program to provide continued incentives to impacted fishermen, basic research and remote monitoring of fishery activities.

Although each state was authorized to make its own determination as to how best to utilize the EDRP II appropriation, many of them are continuing with their previously established incentives program for relays, derelict crab trap removal programs, and stock assessment efforts. Some, however, have chosen to make direct payments to qualified fishermen, where documentation of un-recovered losses is provided. Other fishermen will receive direct financial assistance, as a condition of the second supplemental appropriation, for compliance to TED and BRD regulations. Still, some states have determined that the greatest and best use of limited funds will be to

make improvements and repairs that would further protect the resource and its related habitat; or, improve access to the resource for area fishermen.

Administrative processes necessary to assure a fair and equitable distribution of these funds are expected to be seen early in 2008. Where direct financial assistance is planned, dedicated funds are expected to begin being disbursed in mid 2008; and where projects which improve access or provide other long term benefits to the fishermen and related businesses and industries are planned, implementation is be carried out over the five year grant period.

SPORT FISH RESTORATION ADMINISTRATION PROGRAM

Ronald R. Lukens, Assistant Director and David L. Rice, III, Program Coordinator

The Gulf States Marine Fisheries Commission (GSMFC) provided administrative support for the "Sport Fish Restoration Administrative Program," FWS Grant Agreement No. GS-96-Segment 10. The GSMFC furnished services, qualified personnel, materials, equipment, and facilities as needed, to perform required duties.

During the period covered by this report, the Program Coordinator attended meetings and participated in planning and development activities pertinent to carrying out responsibilities of this Grant Agreement. The GSMFC arranged and paid expenses for appropriate personnel to attend and participate in selected activities. Minutes, general correspondence, meeting notices, agendas, and other required materials were prepared and distributed to the appropriate persons. Persons authorized to travel have been reimbursed. A brief report on program progress follows:

Artificial Reef Activities

Artificial Reef Database

During this reporting period, the GSMFC worked with the state Artificial Reef Programs to identify data that should be entered into the regional artificial reef database. In addition, the GSMFC has developed a web-based query system that will allow individuals to run custom queries of the database. The GSMFC continues to manage the artificial reef literature database and to collect literature to enter into the database in the future. As a part of this activity, the Program Coordinator has been compiling journal articles and other reports that are not currently in the literature database. During 2007 these articles and reports were entered into the database.

General Coordination

The Program Coordinator continues to provide general coordination for the TCC Artificial Reef Subcommittee and to facilitate work between the TCC Artificial Reef Subcommittee and the Atlantic States Marine Fisheries Commission (ASMFC) Artificial Reef Subcommittee. This coordination provides the opportunity to address issues of national scope and importance, such as drafting the National Artificial Reef Plan and developing a partnership with the Department of the Navy and the Maritime Administration for the distribution of decommissioned ships for artificial reef development.

Geographic Information System Activities

The GSMFC continued to train GSMFC staff members to run the Geographic Information System (GIS) and to use ARC/IMS, which is an online mapping program that will allow for the creation of maps using GSMFC data over the Internet. The application of GIS will prove beneficial for all of the projects supported by the Sport Fish Restoration Program

Invasive Species Activities

The Program Coordinator continues to work in conjunction with the National Aquatic Nuisance Species Task Force (ANSTF) and the National Invasive Species Advisory Committee to determine appropriate actions and roles for the GSMFC and its member states in addressing invasive species issues. In addition, the GSMFC provides administration for and participates in the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species (GSARP).

The GSMFC has continued to update and manage the invasive species website for the Regional Panel. The website address is <http://nis.gsmfc.org>. It can also be accessed by going to www.gsmfc.org and clicking on the Invasive Species icon. The Program Coordinator has been working on several issues associated with aquatic invasive species, including the development of a list of research priorities, continued management of the GSMFC invasive species database, and the refinement of the strategic plan for the GSARP.

The Program Coordinator worked with the Research/Development, Education/Outreach, and Pathways/Prevention Work Groups of the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species to develop a variety of products. During this project year, representatives of the Education/Outreach Work Group worked with Mexican representatives to translate existing education and outreach materials into Spanish, benefiting both Mexican citizens and Spanish speaking citizens of the U.S. In addition, the Research and Development Work Group has continued to work toward compiling data to enter into the newly developed Experts Database. This database will allow invasive species program managers to rapidly locate experts in taxonomy, control, technology, etc. in order to address identified invasions of non-native species. Also, the Information Management Subcommittee began work on a document to outline a process to rapidly submit occurrence and collection data to the NAS Database, managed by the U.S. Geological Survey in Gainesville, Florida.

Associated Meetings

- 3/5-8/2007 GEO Tools Conference
- 3/12-15/2007 Gulf States Marine Fisheries
Commission meeting
- 4/17-18/2007 Gulf and South Atlantic Regional
Panel on Aquatic Invasive Species
meeting
- 6/6/2007 Gulf of Mexico Fisheries
Management Council meeting
- 9/11-12/2007 Joint Gulf and Atlantic Artificial
Reef Subcommittees meeting
- 10/15-18/2007 Gulf States Marine Fisheries
Commission meeting
- 10/30-11/1/2007 Gulf and South Atlantic Regional
Panel on Aquatic Invasive Species
meeting

ADMINISTRATION OF THE GULF AND SOUTH ATLANTIC REGIONAL PANEL ON AQUATIC INVASIVE SPECIES

Ronald R. Lukens, Assistant Director and David L. Rice, III, Program Coordinator

The Gulf States Marine Fisheries Commission (GSMFC) provided administrative support for "Administration of the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species," FWS Grant Agreement No. 98210-5-G189. The GSMFC furnished services, qualified personnel, materials, equipment, and facilities, as needed, to perform required duties.

During the period covered by this report, the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species (GSARP) Coordinator attended meetings and participated in planning and development activities pertinent to carrying out responsibilities of this Grant Agreement. The GSMFC arranged and paid expenses for appropriate personnel to attend and participate in selected activities. Minutes, general correspondence, meeting notices, agendas, and other required materials were prepared and distributed to the appropriate persons. Persons authorized to travel have been reimbursed. A brief report on program progress follows:

Administrative Support for the GSARP

The GSMFC provided staff to maintain an active slate of membership on the GSARP. The staff facilitated communication among panel members, planned and coordinated meetings of the GSARP, maintained an administrative record of GSARP meetings, provided staff support for development of documents, and was responsible for all fiscal management and tracking of funds supporting GSARP activities.

Liaison Between GSARP and Aquatic Nuisance Species Task Force

The Program Coordinator attended the Aquatic Nuisance Species Task Force (ANSTF) meetings held during this reporting period. At these meetings the Program Coordinator provided an update of GSARP activities to the ANSTF. In addition, the Program Coordinator provided phone, e-mail, and other coordination between the GSARP and the ANSTF.

Logistical and Administrative Support for the GSARP Committees and Work Groups

The GSARP has several work groups directed toward providing advice and guidance on selected subject matter. These groups require meetings and/or telephone conference calls from time to time, and the GSMFC provided staff to assist these work groups in

carrying out their respective charges. Planning and logistics for meetings and maintenance of administrative records of such meetings are the responsibility of the staff.

Preparation and Presentation of Annual Report

The Program Coordinator will be compiling information for the annual report during the next reporting period.

Associated Meetings

- April 17-18, 2007 Gulf and South Atlantic Regional Panel on Aquatic Invasive Species meeting
- May 7-9, 2007 Aquatic Nuisance Species Task Force meeting
- May 14-16, 2007 International Science and Engineering Fair meeting
- June 28, 2007 Louisiana Invasive Species Council and Advisory Task Force Meeting
- August 21-23, 2007 Risk Assessment Training Workshop on Aquatic Nuisance Species
- October 30-November 1, 2007 Gulf and South Atlantic Regional Panel on Aquatic Invasive Species meeting
- November 5-8, 2007 Aquatic Nuisance Species Task Force meeting

ATLANTIC BILLFISH RESEARCH PROGRAM

Ronald R. Lukens, Assistant Director and David M. Donaldson, Program Coordinator

The Gulf States Marine Fisheries Commission continued to administer the Atlantic Billfish Research Program and awarded funds to projects that addressed population, distribution, post-release survival, and stock identification issues, among others. The original duration for these grants was through December 2006, but due to Hurricane Katrina, most of the project periods were extended into 2007. NOAA Fisheries is the technical monitor of this project.

In 2005, the GSMFC, through a partnership with the NOAA Fisheries, awarded 11 grants totaling \$1.8 million to support research and data collection on billfish to enhance billfish conservation, management, and rebuilding efforts, and provide updated information for stock assessments. These projects will assist in the accomplishment of:

1. Ecological and biological research;
2. Fishery and socio-economic research; and
3. Development of innovative analytical methods and research tools. The competitive proposal review and evaluation process, conducted in early December 2004, resulted in eleven (11) projects selected for funding over the next two years, beginning on January 1, 2005. The projects include:
 - Virginia Institute of Marine Science – 3 projects for a total of \$505,526
 - University of Miami – 3 projects for a total of \$444,054
 - The Billfish Foundation – 1 project for \$162,800
 - University of South Florida – 1 project for \$188,979
 - Texas Parks and Wildlife Department – 1 project for \$83,356
 - U.S. Virgin Islands Division of Fish and Wildlife – 1 project for \$200,205
 - University of Southern Mississippi/GCRL – 1 project for \$215,080

Five (5) projects were completed during this year:

- Virginia Institute of Marine Science (Project #8): *Development of a Portable, Universal Assay for Determination of Gender and Reproductive Status in Istiophorid Billfish;*
- Virginia Institute of Marine Science (Project #9): *Use of Pop-up Satellite Archival Tags to Estimate Post-Release Survival and Habitat Preferences of Sailfish *Istiophorus platypterus* from Commercial Pelagic Longline Gear in the Southern Gulf of Mexico;*
- Virginia Institute of Marine Science (Project #11): *Analysis of the Effect of Offset Circle Hooks on Post-release Survival and an Estimation of the Relative Hooking Efficiency of Circle Hooks and Standard J-Hooks in the Recreational Fishery for White Marlin;*
- The Billfish Foundation (Project #13): *Atlantic Billfish Research Program Constituent Tag/Recapture and Fishing Effort Monitoring Enhancement Project;* and
- University of Miami (Project #14): *An Atlantic-wide Study of Age and Growth of Atlantic Marlins.* These important projects will allow researchers to better understand billfish populations and provide information to assist in the national and international management of billfish resources.

The GSMFC and NOAA Fisheries are planning on holding a symposium in conjunction with the GSMFC March 2008 Annual Spring meeting. The purpose of the workshop is to provide an overview of the work that was conducted and present some of the preliminary findings from these projects.

SOUTHEAST MONITORING AND ASSESSMENT PROGRAM (SEAMAP) *Jeffrey K. Rester, Program Coordinator*

Winter Plankton Survey

A new SEAMAP Winter Plankton Survey took place from March 17 to March 29, 2007. Ichthyoplankton samples were collected at forty-two SEAMAP stations. The stations were east of Mobile Bay on the outer continental shelf. The objectives of the survey were to assess the occurrence, abundance and geographical distribution of the early life stages of winter spawning fishes from mid continental shelf to deep Gulf waters; measure the vertical distribution of fish larvae by sampling at discrete depths in the water column using a 1-meter Multiple Opening and Closing Net Environmental Sensing System (MOCNESS); sample the size fraction of fishes that are underrepresented in bongo and neuston samples using a juvenile (Methot) fish trawl; and measure extrusion of the smallest size fraction of fish larvae through the standard SEAMAP bongo net by collecting samples at selected locations with a bongo frame fitted with a 335 micron net on one side and a 202 micron mesh net on the other side.

Spring Plankton Survey

The SEAMAP Spring Plankton Survey took place from April 16 to May 29, 2007. One hundred twenty-five stations were sampled from the west Florida shelf to the Louisiana/Texas border. This was the twenty-sixth year for the survey. The objectives of the survey were to collect ichthyoplankton samples for estimates of the abundance and distribution of Atlantic bluefin tuna larvae and collect environmental data at all ichthyoplankton stations.

Plankton samples were taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consisted of two conical 61-cm nets with 333-micron mesh. Tows were oblique, surface to near bottom (or 200 m) and back to surface. Wire angle was maintained at 45 degrees. Neuston samples were taken with 947-micron mesh nets on 1 x 2-meter frames towed at the surface for ten minutes. Right bongo and neuston samples were initially preserved in 10% buffered formalin and after 36 hours were transferred to 95% ethyl alcohol for final preservation. Left bongo samples were preserved via an ethanol/ethanol transfer to aid in preservation of larval otoliths. In addition, hydrographic data (surface chlorophylls, salinity, temperature and dissolved oxygen from surface,

midwater and near bottom, and Forel-Ule color) were collected at all stations.

Reeffish Survey

The primary purpose of this survey was to assess relative abundance and compute population estimates of reef fishes found on natural reef fish habitat in the Gulf of Mexico. Two types of gear were used to deploy video cameras:

- 1) a single-funnel fish trap (2.13 m long by 0.76 m square) with the camera mounted at a height of 25 cm above the bottom of the trap; or
- 2) a 4 camera array with 4 cameras mounted orthogonal to each other at a height of 25 cm above the bottom.

Both gears were baited with squid before deployment. The resultant video recordings (typically of one hour duration) were processed back at the laboratory where fishes were identified and counted independently by two tape readers. Final counts were entered into the SEAMAP reef fish database along with additional observations on habitat and fish activity. NMFS conducted reeffish sampling from April 20 to May 31, 2007 on the OREGON II. Video cameras were deployed at 185 sites and the chevron trap at 27 sites. The soak time for the camera array is 30 minutes and the soak time for the trap is one hour. The reef fish cruise was continued on the R/V GANDY and was conducted June 19 through August 12, 2007. Video cameras were deployed at 345 sites and the chevron trap at 52 sites for a total of 397 stations. During 2007, the Reeffish Survey had a total of 530 camera array stations and 79 trap stations.

Summer Shrimp/Groundfish Survey

The overall sampling strategy during the 2007 SEAMAP summer survey was to work from the eastern Gulf to the Texas/Mexico border, in order to sample during or prior to migration of brown shrimp from bays to the open Gulf area. This was the twenty-sixth year for the survey. The entire survey occurred from June 4 to August 3, 2007 and 307 trawl stations were sampled during the survey. In addition, NMFS, Mississippi, and Louisiana vessels collected ichthyoplankton data.

Objectives of the survey were to:

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

All vessels took environmental data, including temperature, salinity, and oxygen at each station.

Fall Plankton Survey

The first fall ichthyoplankton survey to assess abundance and distribution of king mackerel eggs and larvae occurred in August 1984. No sampling survey was conducted in 1985; however, expanded surveys since then have covered Gulf waters from Florida Bay to Brownsville, Texas. The Fall Plankton cruise took place from August 28 through September 29, 2007. NMFS sampled 144 stations on the west Florida shelf and northern Gulf of Mexico. The objective of this survey was to collect ichthyoplankton samples with bongo and neuston gear for the purpose of estimating abundance and defining the distribution of eggs, larvae, and small juveniles of Gulf of Mexico fishes, particularly king and Spanish mackerel, lutjanids and sciaenids.

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

Fall Shrimp/Groundfish Survey

The Fall Shrimp/Groundfish Survey was conducted from October 9 to December 7, 2007, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm with trawl nets in addition to plankton and environmental sampling.

The objectives of the survey were to:

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

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

Inshore Longlining Survey

A new SEAMAP longlining survey was begun in 2007 to monitor coastal shark populations in the near shore waters of the north central Gulf of Mexico. This nearshore shark survey will complement an existing long-term fisheries independent survey currently being conducted by NMFS, by targeting shark species within the shallow waters of the north central Gulf of Mexico. The objectives of the survey are to collect information on coastal shark abundances and distribution with a 1-mile longline and also to collect environmental data. During 2007, Mississippi sampled seven stations during September and three stations during October, 2007. The main objective for the 2007 sampling was to establish a sampling protocol from the RV Tom McIlwain. The ten stations were located in the Mississippi Sound and South of the Barrier Island. A total of 158 sharks were collected, of which 68 were tagged and released.

JOINT GSMFC/GMFC HABITAT PROGRAM

Jeffery K. Rester, Program Coordinator

The Habitat Program continued to monitor applications for liquefied natural gas (LNG) facilities in the Gulf of Mexico. LNG facilities using seawater as a heating source for regasifying the LNG have the potential to impact marine fisheries through impingement and entrainment impacts. The Commission and Gulf of Mexico Fishery Management Council (Council) have both been adamantly opposed to LNG facilities proposing to use seawater as a heat source without site specific data showing negligible impacts to marine fisheries. On March 28, 2007, Shell announced that they were dropping plans to build their previously permitted Gulf Landing facility off Louisiana. They cited substantial capacity already available for importing liquefied natural gas into the U.S. market, particularly along the Gulf Coast. The draft environmental impact statement (DEIS) for the Bienville Offshore Energy Terminal, located approximately 60 miles south of Alabama, was released on July 6, 2007. The DEIS modeled potential fishery impacts on red drum, red snapper, Gulf menhaden, and bay anchovy, but the DEIS noted that these species of concern were not intended to represent the potential impacts to all species at the proposed site. Port Dolphin Energy, LLC filed its license application on March 29, 2007 for a LNG facility located 28 miles offshore of Tampa, Florida in approximately 100 feet of water. The proposed port would consist of two mooring areas centered on two Submerged Turret Loading Buoys, similar to those used in the Gulf Gateway Energy Bridge, deepwater port. The proposed port would be capable of mooring up to two Shuttle and Regasification Vessels (SRV). The SRVs are vessels designed to regasify the LNG onboard the vessel in a closed loop regasification system, thereby reducing potential fishery impacts.

In early 2007, the Program Coordinator served on the Council's Interdisciplinary Planning Team for drafting the Council's Aquaculture Amendment. The Aquaculture Amendment will establish a regional permitting process to manage the development of an environmentally sound and economically sustainable aquaculture industry in federal waters of the Gulf of Mexico. The Council initiated this action to provide a programmatic approach to evaluating the impacts of aquaculture proposals in the Gulf of Mexico and a comprehensive framework for regulating such activities. The Program Coordinator developed the habitat section and the siting criteria for offshore

facilities sections of the Amendment, along with producing maps and figures for the amendment.

During 2007, the Program Coordinator continued to coordinate the Commission's MARFIN sponsored bottom mapping project. The contractor finished the process of gathering data for inclusion in the bottom type database on June 30. The project includes approximately 220,000 bottom characteristic samples for the Gulf of Mexico. The bottom mapping database is information rich, enabling users to drill down into the data to discover the character of seabed in any area. It is extensive, so that any area can be addressed, responding to local priorities. It is thoroughly integrated, allowing the inputs to be passed to models of oceanographic conditions, trophic controls, and fisheries yield. The Bottom Mapping Work Group met in September to review progress on the project. The project was to originally be finished by the end of 2007, but the contractor requested an extension to complete quality review of the data. The final bottom mapping database will be valuable in the identification of essential fish habitat, delineating coral and hardbottom areas, identifying deep water Lophelia reefs and relating fish distributions to bottom type throughout the Gulf of Mexico.

The Commission's Habitat Subcommittee began developing a brochure targeting water managers in the southeastern United States; that details the importance and need for freshwater inflows in downstream estuaries. The brochure discusses the variety of habitat types located in Gulf of Mexico estuaries, the importance of estuaries to people, the need for freshwater in estuaries and things that water managers should consider when making water management decisions. The brochure is also being sponsored by the Southeast Aquatic Resource Partnership.

In October 2007, the Commission began administering an aquaculture grant from NOAA Fisheries. Most of the work is being performed by the University of Southern Mississippi's Gulf Coast Research Laboratory (GCRL), who will be constructing a copepod culture system for raising larval fish. A contractor under GCRL will be developing a planning exercise that will lead to the development of a full scale offshore aquaculture demonstration project in the northern Gulf of Mexico. The Program Coordinator is developing a

geographic information system (GIS) model for aquaculture site selection in the Gulf of Mexico. A literature review was conducted to help determine siting criteria. The most important criteria for site selection were water depth, water currents, water quality, and bottom type. Excluded areas included seagrass areas, coral, hardbottom, marine protected areas, Council designated habitat areas of particular concern, National Marine Sanctuaries, shipping fairways, vessel lightering zones, dredged material disposal areas, artificial reefs and artificial reef zones, and oil and gas platform safety zones. Other considerations were traditional highly fished areas and areas that frequently experience harmful algal blooms. The output from the model was used by the National Marine Fisheries Service to help develop one of the alternatives for the Council's Aquaculture Amendment.

The Gulf of Mexico Fishery Management Council's Texas Habitat Protection Advisory Panel met in early October. The AP discussed Texas Senate Bill 3 and freshwater inflow issues in Texas, the Texas Great Barrier Reef Project, the cleaning of retired MARAD vessels before salvaging them, a beneficial use project using dredged material from a LNG facility, seagrass protection zones in Texas, and the reopening of Cedar Bayou. The Council's Louisiana/Mississippi Habitat Protection Advisory Panel met on October 25, 2007. The AP discussed the Louisiana Coastal Protection and Restoration Plan, a summary of the LACPR Habitat Evaluation Team, widening of the Gulfport Harbor Ship Channel, Hurricane Katrina debris removal in Louisiana coastal waters, the Bienville Offshore Energy Terminal LNG facility, and potential habitat impacts from levee construction for hurricane protection around New Orleans.

INTERJURISDICTIONAL FISHERIES (IJF) MANAGEMENT PROGRAM *Steven J. VanderKooy, Program Coordinator*

The IJF program continued to provide the Gulf States with quality information and recommendations for interstate management of fisheries through the development and revision of its Fishery Management Plans. The IJF staff reviewed previously developed FMPs and monitored each state's progress in implementing management recommendations. The State-Federal Fisheries Management Committee (S-FFMC) reviewed these findings at the GSMFC's 58th Annual Meeting.

During 2007, the IJF Program Coordinator was Mr. Steven J. VanderKooy and the IJF Staff Assistant was Mrs. Teri L. Freitas. The IJF staff arranged and provided support for meetings, work groups, and committees. Program staff continued to accumulate data, research papers, and other materials critical to the further development of the FMPs in progress. A contractor continued to computerize the IJF literature repository into an electronic data base. Revisions, updates, and other pertinent information were distributed to technical task forces (TTFs), state personnel, and agency directors as needed, or requested regarding FMP development.

The Oyster TTF is still in the drafting stages for the revision to the Commission's 1991 Oyster FMP. A delay in the IJF Program funding resulted in very little revision work being accomplished in the first half of 2007, due to a stoppage of all IJF travel. The only TTF meetings were in August and November. The meetings were well attended and substantial progress was made. It is hoped that the momentum generated at these meetings will carry through into next year. The TTF anticipates having a final draft sometime near the end of 2008.

In accordance with The Gulf of Mexico Cooperative Law Enforcement Strategic Plan, the GSMFC Law Enforcement Committee (LEC) continued to work toward regional enforcement goals. The LEC convened monthly conference calls to discuss regional management. In addition, the LEC continues to support the on-going recovery efforts through enforcement and support to the EDRP program. JEAs continue to drive activities throughout the Gulf and the committee holds monthly conference calls to keep communications open and to share information.

The S-FFMC directed the IJF staff in the spring of 2007 to begin development of a Profile/FMP for

Cynoscion arenarius commonly referred to as white trout or sand seatrout. The first meeting of the Arenarius Technical Task Force took place in New Orleans in September, again due to funding problems in the beginning of the year. At the introductory meeting several items were discussed including the Profile/FMP process, the IJF Program, Table of Contents, and initial assignments. Representation was also reviewed at this meeting and additional expertise was identified. The drafting process should begin later this year and it is anticipated that there will be several work meetings scheduled next year.

Program administration in 2007, included financial and logistic support for all IJF-related meetings; production, duplication, and distribution of all documentation and correspondence related to the program; and provision of accountability reporting to the funding agency. In addition, the GSMFC IJF Program staff continued to provide numerous copies of existing FMPs, profiles, amendments, revisions, and other information upon request.

Electronic copies of all new GSMFC publications were generated and have been added to the publications on the Commission website. Finally, the IJF Staff Assistant continues to edit, publish, and distribute two regional management documents annually; *Licenses and Fees for Alabama, Florida, Louisiana, Mississippi, and Texas in their Marine Waters for the Year* and *A Summary of Marine Fishing Laws and Regulations for the Gulf States*.

The IJF staff continues to house and enter programmatic reprints and support literature into the Commission's ProCite database. The IJF bibliographic collection represents all the citations used in the last several FMPs and includes additional technical papers on spotted seatrout, flounder, menhaden, blue crab, striped bass, oysters and sheepshead, as well as, numerous miscellaneous publications. The database is searchable from the GSMFC website and provides keywords and complete abstracts when available. All reprints are housed at the GSMFC office and copies are available upon request. The IJF, Fishing Impacts, and Artificial Reef databases are searchable from the GSMFC website and provide keywords and complete abstracts, when available. The IJF staff is happy to provide electronic copies of any and all the reprints housed in GSMFC, as requested.

FISHERIES INFORMATION NETWORK (FIN) *David M. Donaldson, Program Manager*

The Fisheries Information Network (FIN) is a state-federal cooperative program to collect, manage and disseminate statistical data and information on the marine commercial and recreational fisheries of the Southeast Region.¹ The FIN Program consists of two components: Commercial Fisheries Information Network (ComFIN) and the Southeast Recreational Fisheries Information Network [RecFIN(SE)].

The need for a comprehensive and cooperative data collection program has never been greater because of the magnitude of the recreational fisheries and the differing roles and responsibilities of the agencies involved. Many southeastern stocks targeted by anglers are now depleted, due primarily to excessive harvest, habitat loss, and degradation. The information needs of today's management regimes require data, which are statistically sound, long-term in scope, timely, and comprehensive. A cooperative partnership between state and federal agencies is the most appropriate mechanism to accomplish these goals.

Efforts by state and federal agencies to develop a cooperative program for the collection and management of commercial and recreational fishery data in the Region began in the mid to late 1980s. In 1992, the National Marine Fisheries Service formally proposed a planning activity to establish the RecFIN(SE). Planning was conducted by a multi-agency Plan Development Team through October 1992, at which time the program partners approved a Memorandum of Understanding (MOU) that established clear intent to implement the RecFIN(SE). Upon signing the MOU, a RecFIN(SE) Committee was established.

In 1994, the NMFS initiated a formal process to develop a cooperative state-federal program to collect and manage commercial fishery statistics in the Region. Due to previous work and NMFS action, the Southeast Cooperative Statistics Committee (SCSC) developed an MOU and a draft framework plan for the ComFIN. During the development of the ComFIN MOU, the SCSC, in conjunction with the RecFIN(SE) Committee, decided to combine the MOU to incorporate the RecFIN(SE). The joint

MOU creates the FIN, which is composed of both the ComFIN and RecFIN(SE). The MOU confirmed the intent of the signatory agencies to participate in implementing the ComFIN and RecFIN(SE).

The scope of the FIN includes the Region's commercial and recreational fisheries for marine, estuarine, and anadromous species, including shellfish. Constituencies served by the program are state and federal agencies responsible for management of fisheries in the Region. Direct benefits will also accrue to federal fishery management councils, the interstate marine fisheries commissions, the National Park Service, the U.S. Fish and Wildlife Service, and the NOAA National Marine Sanctuaries Program. Benefits that accrue to management of fisheries will benefit not only commercial and recreational fishermen and the associated fishing industries, but the resources, the states, and the nation.

The mission of the FIN is to cooperatively collect, manage, and disseminate marine commercial, anadromous and recreational fishery data and information for the conservation and management of fishery resources in the Region and to support the development of a national program. The four goals of the FIN include: planning, managing, and evaluating commercial and recreational fishery data collection activities; to implement a marine commercial and recreational fishery data collection program; to establish and maintain a commercial and recreational fishery data management system; and to support the establishment of a national program.

PROGRAM ORGANIZATION

The organizational structure consists of the FIN Committee, two geographic subcommittees (Caribbean and Gulf), standing and ad hoc subcommittees, technical work groups, and administrative support.

The FIN Committee consists of the signatories to the MOU or their designees, and is responsible for planning, managing, and evaluating the program. Agencies represented by signatories to the MOU are the National Marine Fisheries Service, U.S. Fish and Wildlife Service, National Park Service, Alabama Department of Conservation and Natural Resources, Florida Department of Environmental Protection, Louisiana Department of Wildlife and Fisheries,

¹ The Southeast Region (the Region) includes Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Texas, and the U.S. Virgin Islands.

Mississippi Department of Marine Resources, Puerto Rico Department of Environmental and Natural Resources, Texas Parks and Wildlife Department, U.S. Virgin Islands Department of Planning and Natural Resources, Caribbean Fishery Management Council, Gulf of Mexico Fishery Management Council and Gulf States Marine Fisheries Commission.

As of October 1998, the Georgia Department of Natural Resources, South Carolina Department of Natural Resources, North Carolina Department of Environment, Health, and Natural Resources, South Atlantic Fishery Management Council and Atlantic States Marine Fisheries Commission no longer actively participated on the FIN Committee. Although there is no representation of the South Atlantic on FIN, the South Atlantic continues to participate at the work group level and there is continued participation by staff member from both programs to ensure compatibility and comparability.

The FIN Committee is divided into two standing subcommittees representing the major geographical areas of the Region: Caribbean, Gulf, and South Atlantic. These subcommittees are responsible for making recommendations to the Committee on the needs of these areas. Standing and ad hoc subcommittees are established as needed by the FIN Committee to address administrative issues and technical work groups are established as needed by the Committee to carry out tasks on specific technical issues. Coordination and administrative support of the FIN is accomplished through the Gulf States Marine Fisheries Commission.

PROGRAM ACTIVITIES

The FIN is a comprehensive program comprised of coordinated data collection activities, an integrated data management and retrieval system, and procedures for information dissemination. Activities during 2007 were associated with addressing issues and problems regarding data collection and management and developing strategies for dealing with these topics. In addition to committee activities, FIN was involved in various operational activities concerning the collection and management of marine commercial and recreational fisheries data. These activities were conducted by the various state and federal agencies involved in FIN. Each type of activity is discussed below.

COMMITTEE ACTIVITIES

FIN Committee

The major FIN meeting was held in June 2007. The major issues discussed during these meetings included:

- Identification and continuation of tasks to be addressed in 2007 and instruction to Administrative and Geographic Subcommittees and the Biological/Environmental, Data Collection, Data Collection Plan, Outreach and ad hoc work groups to either begin or continue work on these tasks;
- Development of the 2008 FIN Operations Plan, which presented the year's activities in data collection, data management, and information dissemination;
- Discussion of data management issues;
- Review of activities and accomplishments of 2007;
- Continued evaluation of adequacy of current marine commercial and recreational fisheries programs for FIN and development of recommendations regarding these programs;
- Review findings of and receive recommendations from technical work groups for activities to be carried out during 2008;
- Preparation and submission of a proposal for financial assistance to support activities of the FIN; and
- Continued internal evaluation of the program.

Subcommittees and Work Groups

The FIN subcommittees and work groups met during the year to provide recommendations to the Committee to formulate administrative policies, address specific technical issues for accomplishing many of the FIN goals and objectives, and examine other issues as decided by the Committee. Subcommittee and work group members are listed in Table 3. Their activities included:

- The Marine Recreational Fisheries Statistics Survey data review meetings were held in February, June and October 2007 to discuss the RDD and Intercept Surveys for the East coast and Gulf Region, sampler performance activities, discussion of angler info brochures, review of wave report fish tables and estimate tables and review of Gulf States For-Hire Telephone Survey;
- The ComFIN Data Collection Work Group met (via conference call) in February and August 2007 to assess the need for trip-level commercial data to meet management needs in U.S. Virgin Islands and identify and compile conversion factors used for various species in the Southeast Region;
- The Gulf of Mexico Geographic Subcommittee meeting in March and October 2007 to discuss species identification for quota monitoring, demonstration of InPort metadata tool and status of metadata data entry, discussion of opportunities to comment on recreational outreach materials, discussion of long-term collection of protected resources questions, discussion of coding issues regarding trip ticket data, discussion of FIN Outreach Work Group activities and various State/Federal Reports;
- A Head Boat Data Review Meeting was held in April 2007 to review the data from the Southeast Region Head Boat Survey and the FIN At-Sea and For-Hire Telephone surveys;
- The Gulf of Mexico commercial port samplers meeting was held in May 2007 to discuss an overview of state and federal commercial data collection activities; overview of port sampling in Northeast Region; presentations of electronic trip ticket program; NMFS IFQ red snapper System; 2006 tilefish otolith collection results; discussions of the stock assessment process; NMFS trip ticket processing; monitoring of non-native species; a field trip to various fish houses in the Miami area as well as a FIN biological sampling training session;
- The Otolith Processors Training Workshop was held in May 2007 to conduct an otolith readings and comparison exercise for black drum, red drum, spotted seatrout, gray triggerfish, king mackerel, flounder, sheepshead, striped mullet, gray snapper, red snapper and vermilion snapper as well as discuss the red snapper, flounder and king mackerel reference sets, developing reference sets for other species, discussion of allocating processing responsibility for new FIN species, status of Otolith Manual Revision, and processing status of otoliths collected in 2002 – 2005;
- The FIN Data Collection Plan Work Group met in May 2007 to review 2006 and 2007 otolith and length data collection activities, development of targets for biological sampling, recommendations for necessary lengths and otoliths for FIN priority species, discussion of adding new species, and discussion of inclusion of otoliths from fishery-independent sampling activities;
- The State/Federal Fisheries Management Committee met in August 2007 to discuss the finalization of activities for funding for the 2008 FIN cooperative agreement;
- The FIN Outreach Work Group met (via conference call) in August 2007 to discuss establishing a system for notifying commercial dealers about electronic reporting options, developing a survey of commercial dealers for input on the best methods to facilitate reporting, improving outreach to constituents on FIN Data Management System and exploring ways to involve Sea Grant in the entire FIN outreach process;
- The Caribbean commercial port samplers meeting was held in October 2007 to discuss the status of Commercial Fisheries Information Network; demonstration of data entry programs; presentations of Puerto Rico and U.S. Virgin Island whelk surveys, MARFIN project in the U.S, Virgin Islands, Puerto Rico Fishing Regulations, U.S. Virgin Island biostatistical summaries, discussion of Puerto Rico and U.S. Virgin Island sampling activities in 2008, fishing area maps used on the U.S. Virgin Island, update of U.S. Virgin Island catch reports and SEAMAP trap and line data bases as well as a sampling trip to several fishing sites in the U.S. Virgin Islands;
- GSMFC, NOAA Fisheries, FWRI staff and others met in November 2007 to consider methods to promote increased data consistency between reporting trip ticket information and the data collected by the Individual Fishing Quota system while reducing the overall industrial burden of data reporting; and

- In addition, the Program Manager also attended the various Fisheries Information System (FIS), Marine Recreational Informational Program (MRIP) and ACCSP meetings as a liaison from the FIN to ensure the comparability and compatibility among the programs.

OPERATIONAL ACTIVITIES

- **Coordination and Administration of RecFIN(SE) and ComFIN Activities** - This task provides for the coordination, planning, and administration of FIN activities throughout the year as well as provides recreational and commercial information to the FIN participants and other interested personnel. This is a continuation of an activity from the previous year.
- **Collecting, Managing and Disseminating Marine Recreational Fisheries Data** - This task provided for the conduct of the MRFSS survey in Louisiana, Mississippi, Alabama, and Florida for shore, for-hire, and private modes, an activity under the RecFIN(SE). This task provided for coordination of the survey, a field-intercept survey of shore, for-hire and private boat anglers to estimate angler catch using the existing MRFSS methodology, and entry of the data. These data were combined with the NMFS effort estimate telephone survey. In addition, the states conducted supplemental sampling of the intercept portion for the MRFSS for charter boats in Texas (using TPWD methodology), Louisiana, Mississippi, Alabama, and Florida (east and west coast). The states also conducted weekly telephone calls to a 10% random sample of the Texas, Louisiana, Mississippi, Alabama, and Florida (east and west coast) charter boat captains to obtain estimates of charter boat fishing effort. The states conduct an economic add-on survey to collect data regarding trip expenditures concerning recreational fishing. In 2000, NMFS adopted this method as the official methodology for estimation of charter boat effort. This is a continuation of an activity from the previous year.
- **Head Boat Sampling Activities** – The port sampling portion of this task provided for the sampling of catches, collection of catch reports from head boat personnel, and gathering effort data on head boats which operate primarily in the Exclusive Economic Zone from ports along the coasts of Texas and Florida. The at-sea portion of this task provided for the collection of catch and effort data for head boats operating in Alabama and east and west Florida. The effort

data was collected via the Telephone For-Hire Survey where the states conducted weekly telephone calls to a 25% random sample of the Alabama and Florida head boat captains to obtain estimates of head boat fishing effort. The catch and bycatch data was collected via at-sea sampling, where the states will conduct an at-sea sampling survey of approximately 10% of the trips made by for-hire vessels, using the protocols established by FIN and tested by Alabama. The port sampling portion is a continuation of an activity from the previous year. The at-sea sampling is a continuation in Alabama and Florida.

- **Menhaden Data Collection Activities** - This task provided for sampling of Gulf menhaden catches from menhaden purse-seine vessels that operate in Louisiana. The samples were processed for size and age composition for use in coast-wide stock assessments. In turn, Gulf menhaden stock assessments are incorporated into the Fisheries Management Plan for the species, and are also utilized by the Gulf Coast states, the GSMFC, the menhaden industry, and the NMFS. This is a continuation of an activity from the previous year.
- **Development and Implementation of FIN Data Management System** - This task provided for further implementation of a fishery information system for the FIN based on the ACCSP model. This task will provide funding for the FIN Data Base Manager and ComFIN Survey Coordinator who will, in conjunction with the ACCSP, work on developing more data modules for the FIN and ACCSP data management systems. Responsibilities include further development of data modules structures; routine loading of Louisiana, Mississippi (oyster and finfish only) Alabama, and Florida commercial catch effort data, Gulf biological data, Gulf recreational data; and maintenance of DMS. It is the next step for implementing a regional system for FIN.
- **Trip Ticket Program Development, Implementation and Operation** - This task provided for the development and implementation of a commercial trip ticket system for Texas and Mississippi, an activity under the ComFIN. This task provided for development of components for a commercial trip ticket system to census the commercial fisheries landings in Texas and Mississippi using the data elements and standards developed by the ComFIN. It will ultimately be combined with

other commercial fisheries data collected from around the Gulf of Mexico. Full operation of Louisiana, Alabama and Florida trip ticket programs continue and Texas became fully implemented in September 2006. GSMFC enter into a contract with Southwest Computer Bureau (SCBI) to provide installation and maintenance of electronic trip ticket programs for Texas, Louisiana, Mississippi, Alabama and Florida. In Mississippi, the state is currently implementing a trip ticket program. Unfortunately, Mississippi was still unable to get legislation passed that would make it easier to collect data from dealers, but is continuing to implement a program for oyster, bait shrimp and finfish.

- Biological Sampling of Commercial and Recreational Catches - This task provided for the collection of biological data from the recreational and commercial fisheries. These data are essential to accurately assessing the status of commercial and recreational species such as red snapper, king mackerel, Gulf and southern flounder, and greater amberjack. For the commercial aspects, port sampling will be collecting this information based on established guidelines. For the recreational side, samplers will go to sites and collect the necessary biological data using a modified MRFSS method. This task provides funding for collection, processing and analysis of these data. The GSMFC provided coordination as well as tracking of the collection and analysis portions of this activity. This is a continuation of an activity from the previous year.

Coordination and Administrative Support

Working closely with the Committee in all aspects of program coordination, administration, and operation was a major function of FIN coordination and administrative support. Other important coordination and administrative activities included but were not limited to providing coordination and logistical support, including communications and organization of meetings for the Committee, subcommittees, and work groups; serving as liaison between the Committee, other program participants, and other interested organizations; preparing annual operations plans under the direction of the Committee; preparing and/or supervising and coordinating preparation of selected documents, including written records of all meetings; and distributing approved FIN information and data in accordance with accepted policies and procedures.

Information Dissemination

Committee members and staff provided program information in 2007 via a variety of different methods such as distribution of program documents, presentation to various groups interested in the FIN, and via the Internet:

- FIN Committee. 2007. *2008 Operations Plan for Fisheries Information Network (FIN)*. Publication No. 150 Gulf States Marine Fisheries Commission, Ocean Springs. 24 pp + appendix.
- FIN Committee. 2007. *Annual Report of the Fisheries Information Network for the Southeastern United States (FIN) January 1, 2006 - December 31, 2006*. Publication No. 148 Gulf States Marine Fisheries Commission, Ocean Springs. 17 pp + appendices.
- Variety of informal discussions occurred throughout the year during ASMFC, GSMFC, NMFS, and other participating agencies meetings and workshops.
- The FIN has developed a data management system that provides access to commercial and recreational data for the Gulf States. There are two levels of access: confidential and non-confidential and users can request access via the FIN DMS web site (www.gsmfc.org/data.html)
- NMFS provides a user-friendly data management system (DMS) for the MRFSS that is accessible via the web (www.st.nmfs.gov/st1/recreational/data.html)
- GSMFC has developed a home page that provides programmatic and operational information regarding FIN.

If you are interested in any of the documents, they are available upon request from the Gulf States Marine Fisheries Commission office.

ALABAMA MARINE RESOURCES DIVISION

Vernon Minton, Director

The Alabama Marine Resources Division (MRD) is responsible for the management of Alabama's marine fisheries resources through research and enforcement programs. Two division facilities supported an average of fifty-nine employees of the Administrative, Enforcement and Fisheries Sections during fiscal year 2007.

Significant Accomplishments

Four-hundred and fifteen (415) new concrete and steel pyramid reefs were deployed in a grid fashion offshore in Alabama's reef areas during FY 2007. This brings the total deployment of these specially fabricated modules to eight-hundred and sixty-six. These reef modules are about ten feet tall, weigh about 5,000 pounds each, and are covered on each side with perforated plate steel, up to one inch thick. The modules were distributed from east to west and shallow to deep to spread out the fishing effort over the widest possible area.

The U.S. Department of Commerce appropriations budget for the 2006 fiscal year contained \$17 million earmarked for cooperative enforcement initiatives between NOAA law enforcement and state fisheries law enforcement entities. The Marine Resources Division and NOAA Enforcement entered into a Joint Enforcement Agreement, pursuant to the initiative. As part of the agreement, federal dollars are dedicated to increase fisheries law enforcement efforts and compliance with federal fishery regulations along coastal Alabama and the Gulf of Mexico. Fisheries resources are cooperatively protected, managed, and conserved by state and federal governments. The money will be used to purchase two offshore vessels and surveillance equipment that will be strategically located in coastal Alabama. Additionally, it provided funding to increase patrol hours for MRD officers.

Enforcement officers conducted 18,379.5 hours of boat and shore patrol, 13,540 boat checks, 1,598 seafood shop inspections, 23,019 recreational fisherman checks, and issued 1,599 citations and warnings for illegal activities. Thirty-two percent of the citations and warnings (512) were for violations of recreational fishing laws and regulations. The 469 violations of commercial fishing laws and regulations comprised twenty-nine percent of the citations and warnings issued. Officers also issued citations and

warnings for 354 violations of boating safety laws and regulations, 71 wildlife and freshwater fisheries, and 193 citations for other state and federal laws and regulations. A total of 12,880 hours were spent on administrative duties, court attendance, training, and equipment maintenance. Officers worked 4,441.5 hours with the National Marine Fisheries Services Interjurisdictional Fisheries Enforcement Program.

The eighth year of a cooperative project with Auburn University at CPMC has resulted in additional refinement of techniques for raising shrimp in ponds. These will be used to enhance the production of shrimp on shrimp farms in west central Alabama.

In 2007 children from Baldwin county were given the opportunity to fish in one of CPMC's ponds stocked with red drum. All of the children caught fish, some for the first time in their lives. In addition to fishing, the children were given a tour of the hatchery operations at CPMC. Approximately 500 juvenile red drum 12-14", that were donated by Auburn University, were restocked into the pond at CPMC and used in the public outreach program that enables children to be exposed to a fishing experience.

During 2007, AMRD staff participated in two large outreach events in Alabama in an effort to inform and educate the public about Alabama's marine environment. Saltwater "touch tables" were set up at each event to allow children, both young and old, the opportunity to interact with and learn about marine animals commonly found in Alabama's waters. Literature concerning rules and regulations, calendars, posters, and other important issues were distributed. Children enjoyed the opportunity to color and complete activity books found in our children's art section. The events included the four day Mobile Boat Show and a one day Conservation Bird Festival in Fairhope.

Significant Problems and Solutions

The lack of adequate quantities of high salinity, high quality water for rearing of marine fishes, such as red snapper, at the CPMC continues. Hurricane Ivan destroyed the intake structure, the pump station, and portions of the pipeline that supplied water to CPMC. This will be repaired with FEMA and insurance monies, after the Gulf State Park pier is rebuilt and relocated to serve for attachment of the intake

structure. A contract has been awarded and preliminary construction began on November 28, 2007 and it is estimated that it will take 15 months to complete.

The issue of permitting of Liquid Natural Gas (LNG) facilities offshore from Alabama remains an issue particularly regarding the use of “open loop” systems to warm the liquid for transport to market.

ADMINISTRATION SECTION

The Administrative Section provides supervision, clerical, purchasing, and general administrative support for the two operational sections; supervises state seismic activities; and coordinates with other state, federal and regional agencies on fisheries and environmental matters.

Staff for the Administrative Section consisted of the division director, seven clerical, one accountant, one custodial worker, and one marine mechanic. Offices are maintained at Dauphin Island and Gulf Shores.

The 2007 edition of the popular Alabama Marine Information Calendar was produced and distributed. In addition, a calendar depicting conservation related artwork by coastal 4th and 5th graders was produced and printed by the Division. The artwork for the calendar was selected through an art contest, hosted by the Division and judged by local specialists in coastal conservation and the arts. The winning selections were also displayed in art museums in both Mobile and Baldwin counties. Receptions were held at each museum for the winning students, their friends, and families.

Future Plans

The Division will work with the City of Gulf Shores to renovate the boat ramp at Boggy Point that will give fishermen access to Little Lagoon.

The Division plans to continue development of the inshore artificial reef system, particularly in Baldwin County, as suitable reef material becomes available.

Continue to develop procedures to enhance the Joint Enforcement Agreement with NOAA, assure that such agreements are implemented in future years, and seek long term funding for agreements.

Continue to develop and implement a coastwide remote monitoring system and technology upgrades to enhance enforcement monitoring, deployment of enforcement manpower, and biological fishing effort research.

The Division will continue to implement the extension of jurisdiction of the District Courts to offenses committed offshore from Alabama; in addition to those committed fully within Alabama’s territorial sea.

ENFORCEMENT SECTION

The Enforcement Section patrols Alabama’s coastal waters, enforcing state and federal laws and regulations relating to the conservation and protection of marine resources. Officers also enforce laws and regulations relating to boating safety and freshwater fishing and hunting, conduct search and rescue missions, and participate in drug interdiction operations. Officers are cross-trained and deputized as National Marine Fisheries Service, U.S. Fish and Wildlife, and U.S. Customs agents and cooperate extensively with these agencies and other Federal agencies in the coordination of joint enforcement operations, investigative and fisheries enforcement expertise, training, public safety, and other natural resource issues.

Facilities for the Enforcement Section consist of headquarters at Dauphin Island and a district office in Gulf Shores. There are seventeen enforcement officers in the section, ten stationed in Mobile County, six stationed in Baldwin County, and the Chief Enforcement Officer stationed at Dauphin Island headquarters.

Accomplishments

Enforcement officers conducted 18,379.5 hours of boat and shore patrol; 13,540 boat checks, 1,598 seafood shop inspections, 23,019 recreational fishermen checks, and issued 1,599 citations and warnings for illegal activities. Thirty-two percent of the citations and warnings (512) were for violations of recreational fishing laws and regulations. The 469 violations of commercial fishing laws and regulations comprised twenty-nine percent of the citations and warnings issued. Officers also issued citations and warnings for 354 violations of boating safety laws and regulations, 71 wildlife and freshwater fisheries, and 193 citations for other state and federal laws and regulations. A total of 12,880 hours were spent on administrative duties, court attendance, training, and equipment maintenance. Officers worked 4,441.5 hours with the National Marine Fisheries Services Interjurisdictional Fisheries Enforcement Program.

Enforcement officers continued to improve and expand the Coastwatch Program, training citizens to recognize and report violations of saltwater fishing laws and regulations. Information from Coastwatch

members has assisted with planning of enforcement patrols and deployment of manpower and other resources resulting in saved man-hours, by not responding to inaccurate reports of violations. To date, 203 citizens have been trained at 31 training sessions held in Mobile, Baldwin and Jefferson counties. The response to the program continues to be very positive.

The U.S. Department of Commerce appropriations budget for the 2006 fiscal year contained \$17 million earmarked for cooperative enforcement initiatives between NOAA law enforcement and state fisheries law enforcement entities. The Marine Resources Division and NOAA Enforcement entered into a Joint Enforcement Agreement pursuant to the initiative. As part of the agreement, federal dollars are dedicated to increase fisheries law enforcement efforts and compliance with federal fishery regulations along coastal Alabama and the Gulf of Mexico. Fisheries resources are cooperatively protected, managed, and conserved by state and federal governments. The money will be used to purchase two offshore vessels, and surveillance equipment that will be strategically located in coastal Alabama. Additionally, it provided funding to increase patrol hours for MRD officers.

Officers attended training courses on boat handling, criminal investigation, self-defense, supervision, and other state and federal agency law enforcement programs.

Officers continued to enhance public outreach efforts to better communicate enforcement efforts to provide important information and to foster cooperative management initiatives.

Future Plans

Continue to develop mechanisms to improve the Coastwatch program and public outreach efforts to better communicate enforcement efforts and important information.

Continue to develop procedures to enhance the Joint Enforcement Agreement with NOAA, assure that such agreements are implemented in future years, and seek long term funding for agreements.

Work with other Gulf States and the National Marine Fisheries Service to implement the Gulfwide strategic fisheries enforcement plan.

Continue to develop procedures and provide officers with training to enhance Homeland Defense

activities.

Continue to foster efforts to allow the prosecution of violations in federal waters in the District Court System in Alabama.

Continue to develop and implement a coastwide remote monitoring system and technology upgrades to enhance enforcement monitoring, deployment of enforcement manpower, and biological fishing effort research.

FISHERIES SECTION

The activities of the Fisheries Section are directed toward management of commercial and recreational fisheries in Alabama's marine and estuarine waters. These activities involve cooperative efforts with the National Marine Fisheries Service (NMFS) in nearshore Federal waters in the Gulf of Mexico and with other Gulf of Mexico state agencies to develop cooperative fisheries management programs. These activities are mostly funded through federal aid programs of the U.S. Departments of Commerce (NOAA/NMFS) and Interior (U.S. Fish and Wildlife Service). Biological programs not covered by federal aid such as: fish kill evaluation, oyster management, shrimp management efforts, and pollution investigations are supported by commercial and recreational license fees. The Section personnel also assist in oversight of natural gas activities within Alabama's coastal waters, territorial sea, and adjacent federal waters in the Gulf of Mexico and comment on applications for U.S. Army Corps of Engineer permits in the coastal area.

Fisheries facilities consist of the CPMC in Gulf Shores and the MRD Laboratory on Dauphin Island. Personnel consist of one Biologist V, one Biologist IV, one Biologist III, four Biologist II's, one Biologist I, five Biologist Aide III's, seventeen Biologist Aides I/II's, and two temporary laborers.

Accomplishments

The eighth year of a cooperative project with Auburn University has resulted in refined techniques for raising shrimp in ponds. These will be used to enhance the production of shrimp in the shrimp farms of north central Alabama.

Biologists from the Division continue to participate in the Alabama Aquatic Nuisance Species Task Force created in conjunction with the Department of Wildlife and Freshwater Fisheries and authorized by the Governor's Executive Order. This group encompasses all state agencies with interest in or

regulation of aquatic nuisance species. The goal of this task force is to produce an Aquatic Nuisance Species Response Plan by early 2008.

Four hundred and fifteen (415) new concrete and steel pyramid reefs were deployed in a grid fashion offshore in Alabama's reef areas during FY 2007. This brings the total deployment of these specially fabricated modules to 866. These reef modules are about ten feet tall, weigh about 5,000 pounds each, and are covered on each side with perforated plate steel, up to one inch thick. The modules were distributed from east to west and shallow to deep to spread out the fishing effort over the widest possible area.

The effort to create new inshore fishery habitat in south Baldwin County has continued. Demolition of the Gulf State Park Lodge and Hotel facilities provided 10,482 tons of clean concrete rubble, which completed the Bayou St. John Reef in Orange Beach. Demolition of the Fowl River Bridge provided enough concrete rubble to complete approximately 85% of the Ross Point Reef in Perdido Bay. Demolition of the Fish River bridge provided enough reef materials to complete approximately 70% of the Ono Island Reef. Approximately 1650 tons of concrete rubble was placed on the Upper Wreck Reef in Mobile Bay.

During the year 1,040 fisheries assessment samples were taken. This data is utilized to afford managers the opportunity to review the populations of lower trophic level species to detect any changes before they reach the recreational and commercial important species. A total of 93 habitat assessments were performed, and 4,181 fishermen were interviewed during creel surveys.

The success of the electronic trip ticket computer program continues to grow. Currently 29 Alabama seafood dealers are actively using this program. These dealers contribute up to 65% of yearly Alabama landings data to MRD. The computer program allows seafood dealers to enter landings and trip information from commercial fishermen and submit it electronically on a monthly basis. During the past fiscal year, AMRD processed and submitted trip ticket data from 31,825 commercial trips reporting over 32.7 million pounds of seafood worth over \$48 million.

During 2007, AMRD staff participated in two large outreach events in Alabama in an effort to inform and educate the public about Alabama's marine

environment. Saltwater "touch tables" were set up at each event to allow children, both young and old, the opportunity to interact with and learn about marine animals commonly found in Alabama's waters. Literature concerning rules and regulations, calendars, posters, and other important issues was distributed. Children enjoyed the opportunity to color and complete activity books found in our children's art section. The events included the four day Mobile Boat Show and the one day Conservation Bird Festival in Fairhope.

MRD hosted two fishing outreach days at Claude Peteet Mariculture Center in 2007. A total of 20 children and teachers from Baldwin county were given the opportunity to fish in one of CPMC's ponds stocked with red drum 12 -16" in size. Nearly all of the participants caught fish, some for the first time in their lives. In addition to fishing, the children and teachers were given a tour of the hatchery operations at CPMC which included red snapper brood stock and juveniles, and the injection and algae rooms.

Federal Aid

Wallop/Breaux: Wallop/Breaux funds are administered through the U.S. Fish and Wildlife Service. Funds used from this source by the MRD were directed toward a creel survey of Alabama's saltwater recreational anglers, production of the 2007 edition of the popular Alabama Marine Information Calendar, production of the new children's coastal conservation art calendar, construction of artificial fishing reefs in the Gulf of Mexico off Alabama, maintaining equipment and facilities in Gulf Shores and Dauphin Island, managing the public artificial fishing reef permit system in the Gulf of Mexico off Alabama, assisting individuals in designing artificial reefs, conducting mariculture research on red snapper, maintaining and enhancing boat ramps for boating access, conducting a study of the attraction of juvenile red snapper to small patch reefs, sampling coastal Alabama fishes to determine stock status, and testing various offshore artificial reef modules with respect to attractant qualities and durability. An additional project to coordinate all federal aid programs within the MRD and coordinate with other Gulf States was also funded from this source.

Personnel also revised the Alabama Marine Resources Activity Book, which provides an interactive format for educating elementary students about the life cycles and habits of local organisms.

Fisheries Assessment and Monitoring Program: Alabama's MRD continues to collect legacy data through the FAMP program. This program provides a contiguous database of fishes and invertebrates since 1981. This sampling monitors trends in fishes and invertebrates not necessarily targeted by commercial or recreational fishermen, but providing forage for higher trophic levels. In 2007, 205 trawls, 54 seines and 62 beam plankton trawls were collected.

Adult Finfish Sampling Program: Alabama's MRD continues a fishery independent gillnet sampling program. The objective is to gather data on adult fish to be used in the management of important species. Sampling is being conducted through the use of two gillnet configurations and a stratified random design. One hundred eighty-two nets set were conducted, collecting 5,794 finfish representing 6 freshwater and 46 saltwater species. An assessment of the spotted seatrout stocks was submitted to the director and is currently under external review.

Cooperative Statistics: Federal aid funds for this program are administered by the Department of Commerce (NOAA Fisheries) and are utilized by the MRD to collect fisheries-dependent data on commercial shrimp, oyster, crab and finfish landings. Additionally, information on processed seafood such as crab meat and mullet is compiled. Biological information was collected on striped mullet, flounder, Spanish mackerel, grouper, and red snapper. Commercial seafood license data was forwarded to NOAA Fisheries under this grant.

Southeast Area Monitoring and Assessment Program (SEAMAP): Funds from this program are administered by the Department of Commerce (NOAA/NMFS) and are utilized in Alabama for the development of a long term fishery-independent data base on recreationally and commercially important marine and estuarine fishery stocks. This project provides funds to assist in management of the Alabama shrimp fishery and evaluate spawning success and juvenile survival for important recreational and commercial species. In 2007, 18 off-shore 40' trawl samples and nine nearshore ichthyoplankton samples were collected. Quarterly sampling using a 16' trawl in state waters resulted in 75 trawls, 12 seines and 15 beam plankton trawls samples collected.

Inshore Roving Creel Survey: The survey uses non-uniform probability roving creel sampling based on aerial overflight counts to sample the marine

recreational fishery in coastal Alabama. Goals of the survey include characterization of Alabama's coastal recreational boat fishers and their catch. Biological information from fishermen's catch are helpful for determining health of fish stocks.

Additional Programs

The Marine Recreational Fisheries Statistics Survey (MRFSS): Funding for this project is provided through a subgrant from the Gulf States Marine Fisheries Commission. The National Marine Fisheries Service utilizes this survey to gather catch and effort information on a trip level for shore, charter and private boat anglers throughout the United States. Data generated from the survey is used by fisheries managers throughout its scope of coverage. MRD has a subcontract to conduct the portion of MRFSS which collects data from anglers after they have completed their fishing trips and interviews charter boat captains for effort. Division personnel completed 2,200 fishermen interviews for FY 2007.

Otolith Sampling Program: Funding for this project is provided through a subgrant from the Gulf States Marine Fisheries Commission. AMRD continued collection of otoliths (ear stones) from red snapper, greater amberjack, king mackerel, and southern and Gulf flounder caught by commercial and recreational fishermen. This year the list of species of interest was expanded by twelve to include some inshore (i.e. spotted seatrout, sheepshead, striped mullet, red drum) as well as more offshore species (i.e. gray triggerfish, tilefish, red grouper). Otoliths are used to age fish, important information used to determine the health of fish stocks. A total of 2,045 otoliths were collected in fiscal year 2007.

Commercial Trip Ticket Program: Funding for this program is provided through the Gulf States Marine Fisheries Commission (GSMFC). This program is part of a Gulf-wide effort to generate more specific information for each commercial fishery by collecting landings and effort data from each fishing trip. Trip tickets are printed in triplicate form and supplied to Alabama seafood dealers. Seafood dealers are required to complete the trip ticket for each transaction. An alternative form of submission is through an electronic entry program which allows seafood dealers to enter landings and trip information and submit it via the internet on a monthly basis. Data from the completed trip tickets are scanned into a computer, verified and edited. Monthly data is sent to the GSMFC and will ultimately be supplied to

NOAA Fisheries.

Hurricane Ivan Relief Funds: Funds obtained by the Marine Resources Division in the aftermath of the damage caused by Hurricane Ivan were used to plant 29,996.66 cubic yards of oyster cultch in the summer and fall of 2007. A total of 10,000 yards was planted in shallow area outside the mouth of Heron Bay. A total of 19,966.66 cubic yards of cultch was planted along the western edge of Cedar Point Reef.

Emergency Disaster Recovery Program: Late in the fiscal year, Alabama Department of Conservation and Natural Resources, Marine Resources Division, along with the other Gulf States, the Gulf States Marine Fisheries Commission and state legislators from across the Gulf worked with Congress to obtain Federal assistance in the restoration of its marine resources after Hurricanes Katrina, Rita and Wilma in 2005. As a result, Alabama received in excess of \$29 million dollars to be used in oyster rehabilitation, habit restoration and repair, and cooperative research aimed at assessing the recovery of the marine resources of Alabama.

Through 2007 a total of 7,500 cubic yards of cultch has been acquired by the Division for local oystermen to plant over 1735 acres in Heron Bay. Additionally, local oyster dredgers were contracted to remove an estimated 848 cubic yards of rocks from Buoy Reef opening the reef for future harvest. Use of local oystermen to accomplish this not only cleaned the reef of materials that hampered harvest, but provided a source of assistance funding at time when most of the fishermen were still experiencing severe economic impacts. Other assistance was provided to impacted charter boat operators, crabbers, shrimpers, bait fishermen and other commercial fishermen by utilizing their services to provide catch reports, aiding the Department in its effort to assess stock recovery.

At-Sea Head Boat Pilot Survey: Funding for this project is provided through a subgrant from the Gulf States Marine Fisheries Commission. This pilot program was initiated to determine the efficiency and effectiveness of this program compared to an existing logbook program which had mandatory reporting requirements from the head boat operators. The pilot program was conducted to see if the estimates of catch and harvest were comparable to those estimates from the logbook survey while reducing the reporting burden for the captains.

Non-Federal Aid

Biological and enforcement personnel worked together to collect data at oyster checkpoints, enabling the development of sound management measures for sustaining the oyster resources. Data collected assisted in increasing the accuracy of assessment of the status of Alabama oyster stocks.

Personnel maintained and improved the home page for the Division, which is associated with, and accessed through the Departmental home page at "www.outdooralabama.com". The feedback to this site has been extremely positive and it has proven to be a tremendous asset in getting information and assistance to the public.

Future Plans

The Fisheries Section will continue to collect appropriate data and work with recreational and commercial fishermen and other resource user groups to provide Division administrators with recommendations for strategies and regulations for management.

Development of mariculture procedures for commercially and recreationally important marine organisms will continue. Cooperative projects will continue to be initiated with Auburn University, the Dauphin Island Sealab, and the University of South Alabama. This will be enhanced by the rebuilding of the saltwater supply pipeline from the Gulf State Park in Gulf Shores to CPMC. The Fisheries Section will produce larvae of commercially and recreationally important species for use in experiments by the Dauphin Island Sealab.

Cooperative projects will continue to be initiated with Auburn University, the Dauphin Island Sealab and the University of South Alabama to investigate artificial reef benefits and red snapper production enhancement. The Division will continue to construct inshore and offshore artificial reefs as materials and funding allow.

Inshore assessment and monitoring work will be continued monthly, in order to provide a more comprehensive depiction of Alabama's marine waters and resources.

Continuation of the MRFSS in Alabama to include creels of anglers on charter boats, private boats, and shoreline and to continue the telephone survey to better define effort within the charter fishery.

Continue collecting Alabama commercial seafood landings data via Alabama's Trip Ticket Program and to continue the collection of commercial biological fishery dependent data.

Continuation of cooperative offshore reef creation efforts with the Red Snapper World Championship organization.

Work with the city of Gulf Shores to provide boating access to Little Lagoon by renovating the Mo's Landing boat ramp.

FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION *Kenneth D. Haddad, Executive Director*

DIVISION OF MARINE FISHERIES MANAGEMENT

Mark S. Robson, Director

The major responsibilities of the Division of Marine Fisheries Management include:

- development and implementation of marine fisheries management policies,
- angler outreach and marine aquatic resource education,
- commercial fisheries assistance,
- the state artificial reef program,
- monitoring compliance with the marine fisheries trip ticket reporting requirements through audits of applicable fish house records,
- implementation of fisheries effort management programs,
- administrative penalty assessments for violations of specified fisheries regulations, and
- issuance of Special Activity Permits. Highlights of staff efforts in 2007 [i.e., state fiscal year 2006/2007] are summarized below.

MARINE FISHERIES MANAGEMENT & POLICY DEVELOPMENT SECTION

During state fiscal year 2006/2007, the Florida Fish and Wildlife Conservation Commission (FWC) approved a number of amendments to their marine fisheries rules.

The FWC amended various reef fish regulations (including golden tilefish, snowy grouper, red porgy, Atlantic vermilion snapper, and Atlantic black sea bass) that were intended to make regulations in Florida state waters consistent with changes to rule changes for those species implemented by the National Marine Fisheries Service in federally managed waters of the Mexico and Atlantic Ocean.

New rules governing the snook fishery were passed that modified the minimum legal size and the fishing season on both coasts and reduced the bag limit on the Atlantic coast. These rules were a year in the making and were developed with the assistance of a

workgroup composed of individuals representing various user groups that reflected the diversity of the snook fishery.

Additionally, the fee provisions of the Blue Crab Effort Management Program were approved by the Governor and Legislature. The FWC had already approved the program in 2006 that manages fishing effort by establishing a limited-entry license program for the hard crab and soft “peeler” crab fisheries.

A rule was also passed to extend the area where harvest of commercial sponges is allowed by diving in Gulf of Mexico waters. The westward boundary of line of the fishery was extended westward from the Aucilla River to Cape San Blas. The rule amendment also requires that these sponges harvested by diving be cut rather than pulled.

At the end of FY2006/2007, the Commission approved several draft rule amendments scheduled to be finalized during FY2007/2008. They approved rule amendments defining the legal definition of a fold-up trap commonly used in the recreational blue crab fishery. A draft rule was also passed to aid trap recovery efforts following a major storm event. This rule will allow licensed lobster, stone crab, and blue crab fishers to designate people to recover and possess their traps following a declaration of an emergency by the governor and the FWC.

Redfish was considered for rulemaking, and a draft rule was developed based on the results of a biological stock assessment and input received from a public workgroup. Like the workgroup convened to assist FWC staff with the development with the rule amendments implemented in the snook fishery, this workgroup was composed of individuals representing various user groups that reflected the diversity of the red drum fishery. FWC staff also conducted a series of public workshops to gather additional user group input. However, Commissioners decided to postpone rulemaking on red drum until after the next stock assessment is completed, which is scheduled to be in late 2008.

FWC staff continued to work with the ad hoc Spiny Lobster Advisory Board on a suite of recommended

rule chances to the agency's spiny lobster management program. Late in FY2006/2007 this Board approved their recommendations, and staff began scheduling a series of public workshops to gather additional input regarding these recommendations. The Board's recommendations were scheduled to be brought to the Commission during FY 2007/2008 and 2008/2009.

Finally, a three year process of gathering input from stakeholders on the Future of Saltwater Fishing in Florida continued. This process brought together recreational fishermen, commercial fishermen, scientists, and non consumptive interests to lay out a blueprint for protecting the future of Florida marine resources. This undertaking will conclude in early FY2007/2008 and a document produced that identifies stakeholder concerns for maintaining Florida's valuable saltwater fisheries for the future by listing actions that need to be implemented by the FWC.

Artificial Reef Program

During FY 06/07, \$400,000 from a USFWS Federal Aid in Sport Fish Restoration grant, provided funding for five artificial reef construction projects at a cost of \$60,000 each, and funded year one of a five-county SW FL socioeconomic study looking at use and benefits of artificial reefs (\$100,000). An additional \$300,000 in state saltwater fishing license revenues funded one construction project (\$73,907), the third year of a refugia reef research project (University of West Florida, (\$78,714) and five monitoring projects (\$10,900-\$57,688).

Ten local coastal governments, two state universities and the Florida West Coast Inland Navigation District representing five additional SW Florida coastal Counties were issued grants for 2006-07.

Six coastal (four East Coast, two Gulf Coast) Counties completed reef construction projects building reefs using designed concrete reef modules, or secondary use concrete materials. Three monitoring projects consisted of fish censuses, deployment verification and mapping projects. The University of West Florida continued into a third year of a study evaluating the performance of a portion of a system of 502 unpublished artificial patch reefs deployed by the FWC during 2003 in 4 expansive permit areas off Northwest Florida. Three different types of pre-fabricated reef units are utilized in this system. A combination of use of a tethered remote operated camera, hook and line sampling and tagging are used in this project.

As part of its long term Steinhatchee Fisheries Management Area gag grouper life history studies, The University of Florida completed the first year of FWC funded monitoring of a string of 40 patch reefs, each reef consisting of four one meter square concrete cubes with a 24 inch hole through the center of each cube. The FWC funded patch reefs were placed two years previously at unpublished locations in a permitted area on the 10 fathom curve several km apart along the Gulf Coast Florida Big Bend. The evaluation effort conducted sidescan sonar efforts of the sea floor in the vicinity of the units, evaluated the effect of open circuit scuba compared with re-breathers on visual census of gag grouper, the species targeted for census on these reefs. Baseline gag grouper monitoring of these "sentinel" reefs precedes placement of patch reefs inshore of the evaluation reefs to determine if the inshore patch reefs provide any increase in survivorship or growth in the grouper as they leave inshore nursery grass beds and seek hard bottom shelter further offshore, before intercepting the sentinel reefs in deeper water.

During December 2006, and again in April 2007 the FWC conducted the first sampling of legal-size red snapper for PCB analysis in compliance with the EPA PCB disposal permit for the *Oriskany*. Sampling will continue semi-annually in compliance with the EPA mandated sampling to monitor PCB levels in legal-size red snapper, grey triggerfish, red porgy, and vermilion snapper. The PCB fish analysis will be used to verify the pre-deployment risk-based PCB modeling results that concluded the *Oriskany* does not pose a human health threat to fishers eating fish caught on the vessel over a period of years.

Also, during FY 2006-07, FWC and its local sponsors achieved a critical funding break through in the reefing of another larger military vessel in Florida, the *USS Hoyt Vandenberg*. The 520 ft. long *USS Hoyt Vandenberg*, a 13,000 ton former missile tracking ship had been a Florida Keys Artificial Reef project on the books for at least 7 years. It is designated to be the third and final large ship placed in the Florida Keys National Marine Sanctuary, in the lower Keys, off Key West. (The Spiegel Grove is in the upper Keys and a coastal freighter, the Adolphus Busch, is in the middle keys). The first half of FY 2006-07 was spent by the Vandenberg's sponsors and contractors to secure a finalized guarantee of local funding (one million dollars from the Monroe County Tourist Development Council, two million dollars from the Monroe County Board of County Commissioners, and a 1.3 million dollar loan taken out by the City of Key West.) Once these funding sources were guaranteed by December 2006, FWC

re-submitted the final application request to the U.S. Maritime Administration (MARAD) for vessel title transfer. FWC also obtained an additional \$1.25 million grant from MARAD to help offset vessel preparation expenses. An additional \$76,000 in state funds FWC was already supplying to help with pre-sink site monitoring. With the \$5.6 million funding secured, the final transfer agreements were expedited. On January 26, 2007 MARAD signed the vessel title transfer agreement with FWC and on February 2, 2007, the City of Key West voted to enter into a Memorandum of Agreement with FWC and accept responsibility and title for the Vessel, which will be sunk at the City of Key West's permitted reef site. On March 30, 2007 the Vandenberg was towed down the James River to the Colonnas Shipyard. The Vandenberg remained in the yard through the remainder of FY 2006-2007 undergoing environmental cleanup. Reefing off Key West is anticipated in mid May 2008.

MARINE FISHERIES SERVICES SECTION

This section is responsible for conducting audits of saltwater products wholesale dealers, civil penalty assessments, the trap retrieval/trap debris removal program, issuing special activity licenses, commercial fisheries and angler outreach, reviewing project proposals for CZM consistency issues, and assisting with implementation of limited effort programs.

Twenty three saltwater products wholesale dealers were audited at various levels for compliance with the trip ticket reporting requirements and documentation procedures; blue crab landings records of five dealers were audited; 155 wholesale dealers who had failed to submit trip ticket reports in the previous 90 days were notified to determine the status of their business and inform them of the importance of reporting on time and the penalties for not doing so; and records from nine dealers were analyzed as part of on-going law enforcement investigations.

Fifteen informal administrative hearings were conducted for fishers appealing a notice of an administrative penalty assessment or agency action affecting their commercial licensure. The Division's liaison with commercial fishers and saltwater products dealers produced the commercial fishing regulations publication, quarterly newsletters and several notices regarding proposed regulations, workshops, etc. by e-mail and regular mail.

Angler Outreach and Aquatic Resource Education Program

Staff participated in various types of events where they provided information on fishing license requirements, fishing opportunities, fisheries management projects, the importance of habitat protection for healthy fisheries, and the Sport Fish Restoration Program.

During ten fishing shows across Florida, over 50,941 anglers attended and 458,000 attended the Florida State Fair where FWC had a display. Four Ladies Let's Go Fishing Clinics were held, where 202 women interested in learning more about sport fishing and fishery resources participated in these two-day events.

A total of 15 Kids Fishing Clinics were conducted statewide; 3,825 children and their parents participated in the clinics, learning about angling techniques, ethical angling and the importance of habitat conservation.

The Pigeon Key facility in the Florida Keys and the Cedar Key Field Laboratory in the West Central Florida Big Bend area were sites for 144 students and 8 teachers to learn how to use equipment and sampling methods that FWC biologists utilize to collect data for fisheries management. Twenty teacher workshops were conducted statewide and 230 teachers were instructed in fisheries management practices and proper specimen collecting methods for classroom learning programs. These teachers were issued "collecting certificates" after completing a training session; the certificate allows them, with their students, to collect specimens that would otherwise be prohibited because of size, season, etc., for educational purposes.

Staff continued active participation in The Monofilament Recovery and Recycling Program (MRRP), which has been growing steadily since its inception in Brevard County in 1999. Florida's MRRP is a partnership between government agencies, non-profit, public and private organizations. The FWC Division of Marine Fisheries Management coordinates the expansion and distribution of monofilament recycling bins throughout the state. Florida's program has been so effective that several other states (Texas, California, Georgia, North Carolina, South Carolina, New York, Vermont and Montana) and other countries have modeled their programs after the Florida MRRP.

In 2006, Florida's MRRP coordinators were asked to provide information and assistance to officials in the UK, Bermuda and Australia hoping to establish the Monofilament Recovery and Recycling Program for their waters.

FLORIDA FISH AND WILDLIFE RESEARCH INSTITUTE

Gil McRae, Director

FINFISH

Studies of spotted seatrout (*Cynoscion nebulosus*) reproduction in Tampa Bay; catch and release mortality of tarpon, and an intensive data collection program aimed at fully characterizing the state's snook fishery were continued. Life history and fishery characterization studies are also being conducted for hogfish and wahoo. Work on the biology and ecology of reef fishes in southeast Florida, with an emphasis on spawning aggregation studies, is also continuing.

The Florida Keys Finfish Research Program conducted a successful year-round seine project targeting juvenile snapper in shallow near shore seagrass beds and also continued to monitor the abundance, size structure, and habitat utilization of economically important reef fish species in the Florida Keys National Marine Sanctuary (FKNMS) using visual census surveys.

MOLLUSKS

Bay scallop (*Argopecten irradians*) population restoration is ongoing from Pine Island Sound to St. Andrew Bay, with success evaluated via surveys of adult abundance and recruitment patterns.

Studies of calico scallop (*Argopecten gibbus*) population attributes have been initiated on the east Florida shelf and in southwest Florida.

Larval dispersal and genetic studies of hard clams (*Mercenaria*) continue.

An oyster (*Crassostrea virginica*) population monitoring program is underway in southeast Florida.

Monitoring of the queen conch abundance in the Florida Keys to track the recovery of the species was continued. From 1999 to 2004 the number of adult conch in offshore breeding aggregations increased steadily, but now seems to be leveling off. Restoration efforts continue by transplanting non-reproductive conch from nearshore sites to offshore breeding aggregations. The effects of mosquito control pesticides on conch embryos and larvae and

the effects of endocrine disrupting chemicals on the non-reproductive population of conch found in nearshore waters are also being studied.

CRUSTACEANS

Collection of population biology data on blue crabs in Tampa Bay, identification of horseshoe crab spawning beaches, and determination of horseshoe crab population genetic structure were continued.

Our long-term stone crab monitoring project to gather biological data on the stocks exploited in this claws-only fishery was expanded into northwest Florida.

We also received a grant to conduct a health assessment of blue crabs in Tampa Bay, and worked on a joint grant proposal to age blue crabs throughout the Gulf of Mexico.

The commercial and recreational spiny lobster fishery landings continued to be monitored with a mail survey of recreational anglers, the commercial harvest reported through Florida's Marine Fisheries Information System and a semi-annual mail census of all commercial lobster fishermen. Fishery independent surveys are also conducted for larval, juvenile, and adult lobsters. Current research projects include the development of lobster aging techniques, evaluation of Marine Protected Areas in the Florida Keys and Caribbean, lobster habitat use and movement rates, fishery impacts on the environment, and lobster reproductive ecology.

FISHERIES GENETICS

A preliminary analysis of Florida pompano from Florida and Puerto Rico was completed, as was an individual-based movement/migration study of common snook.

A stock identification study of spiny lobster was initiated. DNA markers are being used to genetically identify individual tarpon in capture-recapture and stock structure studies in southwest Florida.

We continued to examine the distributions of cryptic bonefish species in Florida.

We are also helping to evaluate the Tampa Bay red drum stocking program, with about 2,100 of the 20,000 field-caught red drum processed to date found to be of hatchery origin.

FISHERIES STATISTICS

Fisheries-independent monitoring (FIM) of fishes continues in the Tampa Bay, Charlotte Harbor, Indian River Lagoon, Cedar Key, Apalachicola, and

Northeast Florida. The FIM program uses a systematic sampling strategy to collect fish free from the biases associated with collecting data from recreational and commercial fisheries. Data has been used for numerous stock assessments for several inshore species. Staff has spent much time developing models that describe fish abundance associated with different habitats. Additionally, staff in this program has been involved in the mercury concentration in fish program, fish health assessment, environmental health, as well as studying the fishes from the rivers feeding Charlotte Harbor and Tampa Bay.

During 2005, Florida commercial landings totaled approximately 90 million (M) pounds of fish, crab, clams (wild harvest only, excludes aquaculture), lobster, shrimp, and other invertebrates worth over \$166M in dockside value from 201,541 commercial fishing trips. Marine life landings (live fish and invertebrates for aquaria and other uses) in 2005 amounted to over 8.8M individual specimens worth nearly \$2.9M in dockside value from 5,067 commercial collecting trips. The top ten species in dockside value harvested during 2005 in Florida were: stone crab (claws - \$21.5M), pink shrimp (\$20.7M), Caribbean spiny lobster (\$16.7M), red grouper (\$13.4M), blue crab (including soft-shell crabs - \$11.2M), white shrimp (\$10.2M), gag grouper (\$7.4M), bait shrimp (\$6M), king mackerel (\$5M), and striped mullet (\$4.9M). The commercial harvest of food shrimp in Florida decreased to nearly 18.9M pounds (heads on - \$36.9M dockside value) in 2005.

STOCK ASSESSMENT AND POPULATION MODELING

In March 2005, the assessment group completed its annual trends report. This report summarized available commercial and recreational landings, fishing effort, fishery catch rates, fishery-independent sampling effort and catch-success rates for 134 species/groups during the period 1994-2003. We also provided detailed narratives on the biology, fishery, and past assessments for 48 managed species in Florida.

The assessment group also developed stock assessments for spiny lobster, striped mullet, red drum, snook, and sheepshead during 2005 and contributed to numerous other state, federal, and interstate commission projects.

STOCK ENHANCEMENT RESEARCH

Project Tampa Bay was designed to determine the most cost-effective release size for hatchery-reared red drum (*Sciaenops ocellatus*). During 2005

production costs for three sizes of juvenile red drum reared for Project Tampa Bay were determined. Fish Pro, a company specializing in fish hatchery design, completed a site suitability study of property offered by Port Manatee Authority for the development of a new fish hatchery. The stock enhancement research program was the recipient of a \$2 million appropriation by the Florida legislature to develop a hatchery network program statewide. Field monitoring of hatchery-reared red drum released during Project Tampa Bay continued.

A pilot project to develop and evaluate release and sampling strategies for common snook (*Centropomus undecimalis*) in Sarasota Bay and southern Tampa Bay, started in 1996 continued through this reporting period. This project is a partnership between Mote Marine Laboratory, NOAA Fisheries and FWC. Studies concerning the diet and feeding activity of juvenile snook were initiated during summer 2005. Distribution of fin clip kits to anglers was expanded during March 2006 south to Charlotte Harbor and north to Crystal River, to enhance the returns of hatchery reared red drum from the fishery. To date a total of 2,927 fin clips had been processed through the Mote Marine Fin Clip program with 31 fish returns identified genetically as hatchery-reared red drum.

MARINE FISH AND SHELLFISH HEALTH

Staff monitors the health of aquatic organisms throughout the state of Florida. As Project Tampa Bay winds down, preliminary results of the liver lipid assay comparing the livers of wild, stocked, and hatchery red drum suggest that recaptured stocked fish are acclimating to health challenges in the wild. Over 1500 calls were received on the marine fish kill hotline (1-800-636-0511) and responded to this year. Most calls were about red tide events, while the rest reported fish with parasites, other aquatic mortality and disease events, or requested information. Twenty-six fish kills were investigated by staff.

Two manuscripts on ulcerative mycosis in estuarine fish caused by the fungal pathogen *Aphanomyces invadans* have been accepted by the Journal of Aquatic Animal Health.

Staff completed a pilot study to gather baseline data on and evaluate the health of recreationally caught grouper/snapper species in conjunction with FIM cruises. Staff continued surveys on the health of blue crabs in Tampa Bay, and of pink shrimp and hard clams in the Indian River Lagoon.

MARINE MAMMALS

Manatee Mortality and Rescue - During calendar year 2006, 417 manatee carcasses were recovered. There were 92 watercraft related mortalities. For the fiscal year from July 1, 2006 through June 30, 2007, 389 manatee carcasses were documented in Florida. All but 28 of these carcasses were recovered and necropsied.

One interagency, statewide "synoptic" aerial and ground survey of manatees was conducted in January and February 2007, to meet legislative requirements of conducting an annual manatee census. These surveys yield a minimum manatee population count. The 2007 winter survey count was 2,817.

During the 2006-07 North Atlantic right whale calving season (December 01, 2006 – March 31, 2007) staff coordinated and conducted aerial surveys off the coastal waters of Florida in an effort to alert vessels to the presence of right whales, monitor calf production, identify unique individuals, and describe whale distribution and habitat. FWC staff conducted 75 aerial surveys and responded to 17 sightings by land this season. The effort contributed to a total of over 70 individual right whale sightings and 22 cow/calf pairs.

Staff also assisted with the retrieval and necropsy of two dead right whales. One of these whales, a juvenile male, was determined to be killed as a result of ship-strike and the other, a calf, due to complications associated with birth.

In collaboration with Georgia Department of Natural Resources staff conducted 27 right whale biopsy sampling trips, which resulted in 20 biopsy samples collected.

DIVISION OF HABITAT AND SPECIES CONSERVATION

Tim Breaux, Director

Imperiled Species Management

The Imperiled Species Management Section (ISM) in this Division is responsible for the planning and implementation of management activities directed toward the protection and recovery of manatees, right whales, and five species of marine turtles. Marine turtle activities are funded from the Marine Resources Conservation Trust Fund. Manatee and right whale protection efforts are funded from the Save the Manatee Trust Fund.

MARINE TURTLES:

Accomplishments

- During 2006 - 2007, ISM staff continued the rule

making process to amend the Marine Turtle Permit Rule, Chapter 68E-1. This work included public meetings and workshops in Gainesville, St. Petersburg, West Palm Beach, Viera, Tallahassee, Fort Pierce, and Key Largo.

- ISM staff served on the Marine Turtle Grants Committee - This program awarded approximately \$263,322 in grants to Florida conservation groups, local governments, and educational institutions based on funds generated by the sale of the sea turtle license plate. ISM staff also managed the review of Marine Turtle Permit applications and the approval process for grant requests for projects requiring such permits.
- Staff reviewed and approved approximately 186 applications for conservation activities with marine turtles, including nesting beach surveys (101 permits), stranding and salvage work (115 permits), research (41 permits), public turtle walks (28 permits), rehabilitation at captive facilities (17 permits) and educational display (23 permits). Staff also made presentations at five INBS/SNBS training workshops statewide.
- FWC authorizes captive facilities to hold marine turtles for rehabilitation (17) or for educational display (22) in Florida. Staff coordinated transfer and release of marine turtles during rehabilitation, and supervised public sea turtle releases.
- Staff continued to monitor captive facilities in the State that rehabilitate marine turtles or hold turtles (loggerhead and non-releasable turtles only) for educational purposes. Staff conducted several marine turtle holding facility inspections. Inspections focus on compliance with FWC's Marine Turtle Conservation Guidelines and ensuring facilities are safe for turtles being temporarily or permanently held in captivity.
- Staff from the Tequesta Field Lab participated in the Annual Rehabilitation Workshop held at Hidden Harbor Sea Turtle Hospital and inspected the National Marine Fisheries Service Galveston Laboratory, which holds hundreds of Florida loggerheads each year for research on fishing gear.
- Staff provided technical expertise on marine turtle protection during review of over 300 requests for comments from the Florida

Department of Environmental Protection's (DEP) District Offices, DEP's Bureau of Beaches and Coastal Systems, and the State Clearing House. This included submitting final recommendations for activities in marine turtle nesting and foraging habitat for state permits. Standardized marine turtle protection conditions were provided for field permits, with limited site-specific reviews for these projects or special events as needed. Staff attended numerous meetings with other agencies and applicants to discuss projects and minimization of impacts to marine turtles.

- Staff participated in the design, implementation, and review of monitoring to assess the impacts of permitted activities on marine turtles, their nests and hatchlings.
- Interagency Coordination – FWC staff were invited to participate as an expert for the U.S. Fish and Wildlife Service and Army Corps of Engineer's Team on the Programmatic Biological Opinion for beach restoration. Staff served on the following teams, working groups, and committees: Archie Carr Sea Turtle Refuge Working Group, DEP's Turtle Friendly Berm Technical Advisory Group, DEP's Hard Bottom Technical Advisory Committee, FWC's Coastal Wildlife, Permitting, and Wildlife Friendly Teams, the Marine Turtle Grants Committee, DOT's Coastal Roadway Lighting and Regional Endangered Species Team. Staff coordinated with local officials on lighting inspections in numerous coastal communities.
- In Broward County, FWC continued the multiagency effort to assist the County in implementing their approved Light Management Plan. In March, FWC staff discussed lighting issues with staff from FWS, FDOT, FP&L, Deerfield Beach, Fort Lauderdale and City of Hollywood to discuss the upcoming nesting season and options for minimizing lighting impacts on marine turtle nesting beaches in the county. FWC staff continued to coordinate with local governments, property owners, and FWS on reducing lighting impacts on Broward County beaches through correspondence, training sessions, and nighttime beach inspections.
- Staff in the Tequesta Field Lab conducted sea turtle necropsies with Florida Wildlife Research Institute's (FWRI) Sea Turtle Stranding & Salvage Network during necropsy events at FWRI's Pathology Laboratory in St. Petersburg.

The FMRI necropsy events take place every few months.

- Staff continued to work with federal, county, and municipal organizations to minimize lighting impacts to marine turtles. Staff in the Tequesta office managed the hatchling disorientation database, contacted local government, and helped to formulate appropriate actions to resolve problem lights on Florida's nesting beaches. Staff conducted numerous nighttime lighting inspections to identify problematic light sources and provide recommendations for potential solutions for each problematic light.
- Storm Recovery Activities - Staff worked closely with the DEP's Bureau of Beaches and Coastal Systems, the Army Corps of Engineers, the U.S. Fish and Wildlife Service, FEMA, local governments, and private citizens to facilitate storm recovery activities while ensuring that state and federal laws for protection of marine turtles were met. Site inspections were conducted in Broward, Palm Beach, Martin, St. Lucie, Indian River, Brevard, Pinellas, Flagler, St. Johns, Gulf, Santa Rosa, Bay, Nassau and Walton Counties to assess impacts to marine turtle nesting beaches and to coordinate on storm recovery activities.
- Staff continued to offer a training workshop, "The Official Marine Turtle Exterior Lighting Course and Exam", for lighting designers, local government personnel, turtle volunteers, businesses, and landscape architects. The course was developed jointly with the USFWS and hosted by different organizations around the state, including Cocoa Beach, St. George Island, Fort Walton Beach, Lauderdale-by-the-Sea, and Holmes Beach as well as staff from the Florida Department of Environmental Protection.
- Staff was invited to make presentations on marine turtles and conservation issues at the DOT Environmental Management Meeting. Staff also presented poster papers at the International Sea Turtle Symposium in Charleston South Carolina.
- FWC staff hosted the 2007 Marine Turtle Permit Holder Workshop at Harbor Branch Marine Institute, for over 250 Marine Turtle Permit Holders and volunteers. This two day event included approximately fifteen presentations by agency management and research staff, conservation organizations, and local

governments as well as summaries of Marine Turtle Grant projects.

- Educational activities for marine turtle conservation included the distribution of brochures to local governments, permit holders, conservation groups, and citizens; distribution of informational booklets; responses to numerous requests for information from interested parties, attendance and participation in coastal-related conferences and forums; participation on committees on marine turtles and their nesting habitat; presentation of slide shows and lectures to groups; updating of the existing web site; and general promotion of the program and its fund-raising activities. Marine turtle program staff has developed fifteen colorful marine turtle decals that depict the marine turtle species that occur in Florida and their marine habitat. Proceeds from the sale of these marine turtle decals, primarily associated with boat registrations and the sea turtle license plate are used to help fund the agency's marine turtle program.

MANATEES

The Imperiled Species Management Section implements many tasks of the Florida Manatee Recovery Plan. The activities are focused in five program areas:

- 1) Development and implementation of county-based manatee protection plans (MPPs).
- 2) Promulgation of boat speed regulations to protect manatees.
- 3) Review of permitted activities to minimize negative impacts to manatees.
- 4) Various directed efforts to protect manatee habitat, particularly warm water refuges and seagrasses.
- 5) Outreach activities to provide current information to the public and promote conservation stewardship.
- 6) Stakeholder engagement to encourage participation and partnerships.

Accomplishments:

- Staff spent the last year developing and finalizing the first state "Florida Manatee Management Plan" that includes all proposed future management and research actions anticipated for the next 5 years and beyond. A team of FWC staff participated as members of the Manatee Management Plan Team charged with drafting the plan. The seven team members

were the main authors of the plan, however many other staff in the agency provided assistance and expertise. The draft of the plan was revised twice base on extensive public comment received during open public comment periods. The third and final public comment period closed on June 14, 2007. Based on those public comments staff will revise the draft plan for presentation to the commission in late 2007 for their approval.

- Staff provided extensive technical assistance to Broward and Palm Beach counties as they further developed their manatee protection plans (MPPs). This involved coordination with USFWS during reviews of early drafts of portions of the plans to ensure consistency between FWC and USFWS in the development of these county plans. Between January and June 2007, staff revised the Palm Beach County approved MPP, while working with stakeholders. These revisions were sent to the County in late June for review and approval. Staff continued to provide comments and to work with stakeholders for the Broward County Boat Facility Siting Plan draft. A final version of this portion of the MPP was approved by the Broward County Board of County Commissioners in June. Final approval for the MPP is expected to occur in the fall of 2007, after submittal of the other portions of the plan and after the County has approved and implemented their funding recommendations in the plan.
- Staff reviewed and prepared comments on modifications to the Duval Manatee Protection Plan.
- Staff continued to collect boating data and develop new tools to use in a re-evaluation of a 2005 informal petition submitted by a local boating group requesting changes to some of the zones in Brevard County. Staff is using the petition as a way to test new evaluation tools with the hope that the new tools will be able to be used in future evaluations of other areas around the state. The aerial surveys of boating activity, which began in April 2006 and will be completed in September 2007. Results from a Florida Sea Grant survey-based study of boating patterns are expected to be available in the same timeframe. Information collection efforts will also include a web-based survey of current and historical water sports activities in the county.

FWC staff anticipates completing its re-evaluation of the petition by the end of 2007.

- In Duval County a Notice of Proposed Rulemaking was published in August 2006 to amend the FWC zones in the downtown Jacksonville area to make the zones the same as the existing federal zones established by the United States Fish and Wildlife Service. The city of Jacksonville had requested this action. FWC staff conducted a public hearing in Jacksonville in September 2006. The final public hearing was conducted during the December 2006 FWC meeting, where the amendments were approved as advertised. The amendments were filed for adoption with the Department of State in January 2007.
- Staff reviewed a total of 672 projects during the year and offered recommendations to reduce or eliminate potential negative effects of the proposed activities. Staff attended several Cabinet Aides meetings to assist with agenda items regarding impacts to manatees.
- FWC's manatee outreach and information programs distribute a wide array of information to a variety of audiences. The public must be well informed so that they understand the problems facing manatees, as well as the steps that need to be taken to recover the species. In addition, the FWC seeks to target specific user groups that have impacts on manatees. Knowledge of manatee habitat requirements, behavior and general biology can contribute towards the reduction of manatee disturbance, harassment, injury and death. The goal is to provide factual, timely information appropriate to the target user groups. This is achieved in part by providing information through the state visitor centers along interstates, providing printed materials to the various educational outreach facilities, attending manatee festivals throughout the state, and using the internet to reach people worldwide.
- Staff held three multiple day meetings of the Manatee Forum, a stakeholder groups that discusses and considers manatee issues and provides feedback for agency consideration. The Manatee Forums are funded jointly by FWC and the U.S. Fish and Wildlife Service.
- Commission staff coordinated with the U.S. Army Corps of Engineers (ACOE), the South Florida Water management District (SFWMD)

and the Southwest Florida Water Management District (SWFWMD) to address the structure-related mortality issue through the Interagency Task Force for Water Control Structures. Ongoing efforts since 1991 through the task force have led the ACOE and SFWMD to retrofit water control structures and revise operational protocols. These efforts are having a significant influence on reducing structure-caused mortality at retrofitted structures. Within the footprint of the Central and South Florida canal system, 157 manatees (84% of the state-wide total) have died as a result of interactions with only 23 of the numerous water control structures in this region, an average rate of 4.9 manatees/year (1974-2006). The remaining water control structures requiring manatee protection should be retrofitted with proven technology over the course of the next three years.

- FWC has begun updating existing contingency plans to address the unplanned loss of recognized warm-water refuges during the winter months. FWC has also continued to co-chair the Warm-Water Task Force (WWTF) with our UFSWS partners during the past year.
- FWC served as co-chair on the Habitat Working Group and participated in a broad range of manatee habitat issues with its Manatee Recovery Team partners. These issues included; defining warm water and foraging habitat carrying capacity, effects of reduced spring flow and loss of thermal refuges, changes in foraging areas, etc. Focused efforts of the Habitat Working Group include applying a developed habitat checklist for identified natural and artificial warm water refuges throughout the state, and estimating habitat carrying capacity based on winter warm water refuge sites and foraging habitat available to regional manatee populations.
- FWC staff from the manatee and the marine habitat conservation and restoration programs have continued working together to address the protection of Florida's seagrass resources. The efforts of these two groups have provided seagrass protection protocols and recommendations for coastal construction permits, and proactive habitat restoration and monitoring projects in St. George Sound in Franklin County, St. Andrews Bay in Bay County and the Indian River Lagoon in St. Lucie County. The FWC also continued working with the Kings Bay Advisory Group to restore

submerged aquatic vegetation in the Kings Bay in Crystal River. Staff began planning for seasonal protection of manatee foraging resources with an eye toward allowing expansion of such resources during peak growing periods. The Group is also working toward a complete ecological restoration of Kings Bay through regional citizen and interagency coordination as part of the SWFWMD SWIM program.

- The Commission worked with its federal and SFWMD partners to complete the document entitled "Guidelines for Manatee Conservation during Comprehensive Everglades Restoration Plan (CERP) Implementation". This document addresses activities such as, culvert and water control structure installation, potential Aquifer Storage and Recovery thermal effects, potential manatee entrapment in canal networks and in-water construction effects. The use of this document by the Water Management Districts, USACOE and the permitting agencies should allow for an efficient process to address manatee concerns during CERP construction activities.

Florida Department of Agriculture and Consumer Services

Charles Bronson, Commissioner

Division of Aquaculture

Sherman Wilhelm, Director

The Division of Aquaculture conducts numerous activities to promote the development of aquaculture and ensure the quality of aquaculture products in Florida. These activities include regulatory, administrative, advisory, and technical functions directed toward ensuring that aquaculture operations are compatible with the Florida Aquaculture Plan, Aquaculture Certification Program, best management practices, resource management goals, and public health protection. The Division provides several primary service programs to support aquaculture development:

- 1) Aquaculture Certification Program;
- 2) Sovereign Submerged Lands Aquaculture Leasing Program;
- 3) Oyster Culture and Shellfish Resource Development Program;
- 4) Shellfish Sanitation;
- 5) Shellfish Environmental Assessment; and
- 6) Technical Support Program (Ombudsman, training, technical outreach, grants).

The Division has been very progressive in its support of aquacultural development as a practicable alternative to commercial fishing and conventional agriculture to foster economic development in rural and coastal communities. The Division's programs offer unique and essential services to this emerging sector of Florida's agriculture community. These programs provide the regulatory framework for aquacultural operations and public health protection, provide specific farming areas on state-owned submerged lands, and provide responsible stewardship for Florida's natural aquatic resources.

The Florida Agriculture Statistics Service (2006) reported that sales of Florida's aquaculture products were \$75 million in 2005, representing a substantial decline from 2003 values of \$95 million. This decline in aquaculture production was due largely to losses sustained by aquaculture businesses because of the crop losses and damage associated with hurricanes in 2004 and 2005. Sales of hard clams and oysters declined about 18 %, while ornamental fish production declined about 30%. Sales of clams, seed clams and oysters were \$10.7 million in 2005. The 2008 FASS report will include aquaculture production parameters for 2007.

During FY 2006/2007, the Division continued its commitment to encourage the development of the aquaculture and shellfish industries in Florida. This commitment is based on the belief that aquaculture will become an integral segment of Florida's agricultural and economic future by providing high quality aquacultural products to worldwide markets while advancing resource management.

The following is a summary of the activities related to aquaculture carried out by the Bureau of Aquaculture Development and the Bureau of Aquaculture Environmental Services during fiscal year 2006/2007.

Bureau of Aquaculture Development

Aquaculture Certification Program

Chapter 597, Florida Statutes (F.S.) established the Aquaculture Certificate of Registration to recognize aqua-farming businesses. Aquacultural businesses in Florida are required to be certified annually and to attest that they will comply with the best management practices provided in Chapter 5L-3, Florida Administrative Code (F.A.C.). The aquaculture certificate is used to identify aquaculture producers as members of Florida's agricultural community and to identify aquacultural products produced in the state.

The Aquaculture Certificate of Registration is linked to the Best Management Practices Program. Best management practices have been established by and for the aquaculture industry and represent the most appropriate and practical framework for Florida's diverse aquaculture businesses. Site inspections are conducted at aquaculture facilities to ensure compliance with best management practices. Staff is trained to provide a standardized evaluation based on compliance with established best management practices.

The Division certified 983 aquaculture facilities during FY 2006/2007. Shellfish producers (471 farmers) make up 47% of the certified farms, 231 ornamental producers make up 23% of the certified farms, 178 food fish producers make up 18% of the certified farms, with the remaining producing live rock, alligators and bait. Certified farms are found in 59 of the state's 67 counties: with the highest number of certified farms occurring in Levy County (20%), Hillsborough County (8%), and Lee County (6%).

Sovereignty Submerged Lands Leasing Program

The Division is responsible for the Aquaculture Lease Program under the provisions in Chapter 253, F.S. Currently, the Division administers 601 aquaculture leases containing about 1,434 acres and 79 shellfish leases containing about 1,285 acres. Aquaculture and shellfish leases are located in 17 counties, including: Bay, Brevard, Charlotte, Collier, Dixie, Franklin, Gulf, Indian River, Lee, Levy, Manatee, Monroe, Palm Beach, Pinellas, Santa Rosa, St. Johns, and Volusia Counties. In response to its statutory mandate, the Division identifies tracts of submerged lands throughout the state that are suitable for aquacultural development. Twenty special aquaculture use areas have been identified by the Division and authorized by the Board of Trustees in nine coastal counties.

The Aquaculture Lease Program supports marine aquaculture in a very unique way, and producing hard clams on submerged lands is the largest marine aquaculture business in Florida. The Florida Agriculture Statistics Service (2006 Biennial Report) reported that there were 153 operations raising clams and 142 reported sales of \$9.9 million in 2005. Farming hard clams is different from many other agricultural activities in that cultivation usually requires the use of state-owned lands. Unlike many upland agricultural ventures that are conducted on privately-held lands, marine aquaculture must be conducted on or over submerged lands that are largely held in the public domain. Since only an insignificant amount of suitable submerged acreage is privately owned, marine aquafarmers are uniquely dependent upon the use of public lands to grow their crops. Accordingly, the Department

must act on behalf of the Governor and Cabinet to administer and manage these public lands in the best interest of the people of Florida, including protecting valuable natural resources.

Oyster Culture and Shellfish Resource Development Program

Under the mandate to improve, enlarge, and protect the oyster and clam resources of the state, the Division is actively engaged in enhancing shellfish resources and restoring oyster reefs on public submerged lands. During FY 2006/2007, the Division collected 246,624 bushels of processed oyster shell from processors located primarily in Franklin County, and purchased 13,121 tons of fossil shell from a local quarry. Shell planting operations accounted for the deposition of 3,648 cubic yards of processed oyster shell and 6,216 cubic yards of fossil shell on public oyster reefs in Santa Rosa and Bay Counties. Oyster resource development projects involving the relaying and transplanting of live oysters were conducted in cooperation with local oystermen's associations in four coastal counties. A total of 178,304 bushels of live oysters were re-planted on public reefs in Franklin, Wakulla, Dixie, and Levy Counties.

Restoring Public Oyster Reefs

The Division continued projects to restore oyster resources which were damaged by adverse environmental conditions associated with a series of hurricanes which impacted Gulf coastal regions. The Department received \$1.7 million from a grant with NOAA to restore oyster resources on Florida's Gulf Coast in response to Hurricane Ivan. In 2006, the Division actively engaged in restoring oyster reef habitat on numerous sites identified in its oyster restoration plan. Approximately 10,848 cubic yards of fossil shell have been to date deposited to restore oyster reefs in Escambia, Santa Rosa, Walton, and Bay Counties.

In 2006, the Department entered into a subcontract agreement with the Gulf States Marine Fisheries Commission (through NOAA) to restore oyster reefs adversely affected by hurricanes in 2005. The five-year, \$4.2 million contract provides for three project components:

- 1) restoring public oyster reefs,
- 2) providing economic assistance to oyster farmers, and
- 3) developing a scientific model to assess the success of oyster reef restoration efforts in the Pensacola Bay system.

Apalachicola Bay Oyster Harvesting License

An oyster harvesting license is required to harvest oysters from Apalachicola Bay. In FY 2006/2007, 920 oyster harvesting licenses were sold, representing a 22% increase from the number of licenses (754) sold in the preceding year.

Technical Support Programs

Providing technical assistance to the aquaculture and shellfish industries is an important Division activity. Staff provides substantial technical and administrative support for aquacultural and shellfish operations through site visits, compliance inspections, and workshops. Staff conducted more than 2,500 site visits and compliance inspections to assist aqua-farmers and shellfish processors.

Bureau of Aquaculture Environmental Services

Shellfish Sanitation and Environmental Assessment Programs

A total of 38 shellfish harvesting areas totaling 1,445,833 acres are currently classified and managed statewide. During FY 2006/2007, 734 sampling excursions were conducted to collect and analyze 12,737 water samples for fecal coliform bacteria, and there were 305 closures and re-openings of shellfish harvesting areas. During FY 2006/2007, a total of 96 Shellfish Processing Plant Certification Licenses were issued and 369 regulatory processing plant inspections were conducted. Based on inspection results, 42 warning letters and 5 settlement agreements were issued.

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES OFFICE OF FISHERIES *Bryant O. Hammett, Secretary*

OFFICE OF FISHERIES

The mission of the Louisiana Department of Wildlife and Fisheries (LDWF) Office of Fisheries is to conserve and protect Louisiana's renewable aquatic resources for present and future generations of Louisiana citizens, by controlling harvest and replenishing and enhancing stocks and habitat. The mission is accomplished through the activities of the various programs within the Marine Fisheries Division.

The programs are: Shellfish (shrimp and crabs), Mollusc (oyster), Finfish, Habitat, and Research. The clients served by these programs include present and future generations of Louisiana citizens, as well as national and international interests that derive benefits from consumptive and non-consumptive use of Louisiana's fisheries resources. The Department recommends seasons and size and possession limits or recommends other means of conserving key resources. Other conservation/protection methods include replenishing species and enhancing or developing species or habitats as needed to provide for the needs of consumptive and non-consumptive users or environmental health. The Department also conducts research to provide insight into the proper functioning of natural systems; and educates the public and promotes wise use of resources. This report describes program activities that support this mission.

SHELLFISH PROGRAM

The Marine Fisheries Division continued its long-term fishery independent trawl sampling throughout coastal Louisiana. Data from these samples were used to set season frameworks for both the fall and spring inshore and the winter offshore shrimp seasons. Additionally, these data were used to recommend season extensions and special seasons.

Shrimp

The Marine Fisheries Division concluded work on an \$8.68 million federal grant (Louisiana Shrimp Fisheries Disaster Assistance Grant - NOAA/DOC Award No. NA03NMF4520310). The grant activities, which included providing economic assistance to commercial shrimp fishers who demonstrated a record of compliance with turtle excluder and bycatch reduction device regulations, incentives to commercial shrimp fishers to ensure widespread and proper use of turtle excluder and bycatch reduction devices in the fishery and personal assistance to commercial shrimp fishers,

have been completed. Activities related to the promotion and marketing of wild caught Louisiana shrimp and the initiation of a quality certification and marketing program in conjunction with the Southern Shrimp Alliance have also been completed.

The Marine Fisheries Division also continued administering a \$197,731 federal grant (Interjurisdictional Assessment and Management of Louisiana Coastal Fisheries -NOAA/DOC Award No. NA07NMF4070050) to maintain a coast-wide monitoring program for parameters relevant to important fisheries resources, including both population dynamics and associated hydrological and environmental parameters, and to use information gathered to make rational management decisions. Technical biological and hydrological data gathered from the monitoring program were used in establishing seasonal frameworks within the shrimp and oyster fisheries, predicting annual Gulf menhaden (*Brevoortia patronus*) abundance and providing data for the management of groundfishes and blue crabs (*Callinectes sapidus*). These data provided estimates of size, density and growth of juvenile penaeid shrimp on the nursery grounds and staging areas, movement of sub-adult shrimp from the nursery grounds to staging areas and provided the ability to correlate juvenile shrimp response and subsequent production to hydrologic conditions. Data collected from the monitoring program were crucial in establishing opening and closing dates for shrimp seasons within Louisiana inside and outside territorial waters. Hydrological and biological data collected on oyster recruitment (spat set) and oyster density and availability estimates were used in formulating management recommendations regarding the oyster season on the public oyster seed grounds and seed reservations. Harvest estimates were determined from boarding report surveys of boats fishing the public seed grounds and seed reservations.

Management Actions

In recognition of differences in shrimp recruitment, emigration and growth patterns among Louisiana coastal areas, the Department has managed the shrimp fishery in inside waters, utilizing a shrimp management zone concept. First implemented in 1975, the zone concept has provided the flexibility needed to create staggered opening and closing dates, season extensions, special seasons and special gear seasons between shrimp management zones. Louisiana's three shrimp

management zones are:

- Zone 1 – From the Mississippi/Louisiana state line to the eastern shore of South Pass of the Mississippi River.
- Zone 2 – From the eastern shore of South Pass of the Mississippi River to the western shore of Vermilion Bay and Southwest Pass at Marsh Island.
- Zone 3 – From the western shore of Vermilion Bay and Southwest Pass at Marsh Island to the Louisiana/Texas state line.

Recommendations for the opening dates of the spring shrimp season in inside waters are determined by projecting when 50 percent of the inshore population of brown shrimp sampled within each zone will be at sizes of 100 count per pound or larger. Closure of the spring shrimp season in inside waters is based upon the relative abundance, percentage and distribution of small juvenile white shrimp taken in trawl samples. Recommendations made for the opening and closing dates of state offshore territorial waters are based upon the number and size of over-wintering white shrimp sampled in outside waters.

Offshore Shrimp Season

In 2007, that portion of the State's Territorial Sea extending south of the inside/outside shrimp line from the eastern shore of the Atchafalaya River Ship Channel, as delineated by the Channel red buoy line to the northwest shore of Caillou Boca at 29 degrees 03' 10" north latitude and 90 degrees 50' 27" west longitude closed to shrimping at 6:00 a.m. on January 8, 2007.

A portion of these outside waters extending from the Atchafalaya River Ship Channel at Eugene Island, as delineated by the Channel red buoy line to the USCG navigational light off the northwest shore of Caillou Boca at 29 degrees 03' 10" north latitude and 90 degrees 50' 27" west longitude was re-opened to shrimping on April 17, 2007, at 6:00 a.m. That portion of the State's Territorial Sea extending south of the inside/outside shrimp line from the western shore of Freshwater Bayou Canal at 90 degrees 18' 33" west longitude to the eastern shore of the Atchafalaya River Ship Channel, as delineated by the Channel red buoy line re-opened to shrimping at noon on May 14, 2007.

Inshore Shrimp Seasons

The 2006 fall inshore shrimp season within the open waters of Breton and Chandeleur Sounds as described

by the double-rig line (LA R.S.56:495.1(A)2) remained open to shrimping until March 31, 2007, at 6:00 a.m.

Sample data were used to set the opening and closing dates of the 2007 spring inshore shrimp season. Data indicated that management criteria for recommending an opening of the spring inshore shrimp season in Zone 1 were met, and the season was opened at twelve noon May 28, 2007. Based on the number, percentage and distribution of small juvenile white shrimp taken in 6 and 16-ft trawl samples, the spring inshore shrimp season closed in Zone 1 on July 16, 2007, at 6 p.m. except for the open waters of Breton and Chandeleur Sounds, as described by the double-rig line (LA R.S.56:495.1).

The spring inshore shrimp season in Shrimp Management Zone 2 opened at twelve noon on May 14, 2007. Based on the number, percentage and distribution of small juvenile white shrimp taken in 6 and 16-ft trawl samples, the spring inshore shrimp season, in that portion of Shrimp Management Zone 2 extending from the Atchafalaya River Ship Channel at Eugene Island, as delineated by the Channel red buoy line to the western shore of Vermilion Bay and Southwest Pass at Marsh Island closed on June 25, 2007, at one-half hour before official sunrise. Based upon the number, percentage and distribution of small juvenile white shrimp taken in 6 and 16-ft trawl samples, the spring inshore shrimp season in that portion of Shrimp Management Zone 2 extending from the Atchafalaya River Ship Channel at Eugene Island, as delineated by the Channel red buoy to a point originating along the inside/outside shrimp line as described in LA R.S.56:495(A) at the western shore of Bayou Lafourche at Belle Pass at 29 degrees 05 minutes 10 seconds north latitude and 90 degrees 13 minutes 36 seconds west longitude closed at 6:00 p.m. on June 30, 2007. Likewise, based upon the number, percentage and distribution of small juvenile white shrimp taken in 6 and 16-ft trawl samples, the spring inshore shrimp season in that portion of Shrimp Management Zone 2 extending from a point originating along the inside/outside shrimp line as described in LA R.S.56:495(A) at the western shore of Bayou Lafourche at Belle Pass at 29 degrees 05 minutes 10 seconds north latitude and 90 degrees 13 minutes 36 seconds west longitude eastward to the eastern shore of South Pass of the Mississippi River closed on July 6, 2007 at 6:00 p.m.

The spring inshore shrimp season in Shrimp Management Zone 3 opened at twelve noon on May 28, 2007. Based on the number, percentage and distribution of small juvenile white shrimp taken in 6

and 16-ft trawl samples, the spring inshore shrimp season closed in Zone 3 at 6 p.m. on June 30, 2007, except for that portion of Zone 3 which includes the Calcasieu Ship Channel originating at a line between Channel Markers 85 and 86 southward to a point originating along the inside/outside shrimp line at Calcasieu Pass, as described in LA R.S.56:495(A) and including East Pass from its origin at the Calcasieu Ship Channel to the south end of Calcasieu Lake and West Pass from its origin at the Calcasieu which closed to shrimping on July 7, 2007, at 6 p.m.

Sample data were used to recommend the opening dates of the 2007 fall inshore shrimp season. Due to the presence of significant quantities of marketable size shrimp, the fall inshore shrimp season in Shrimp Management Zones 1 and 2 opened at twelve noon on Monday, August 13, 2007, and in Zone 3 at twelve noon on Monday, August 6, 2007. The closing dates for these waters was official sunset Tuesday, December 18, 2007, except for the open waters of Breton and Chandeleur Sounds, as described by the double-rig line (LA R.S.56:495.1(A)2), which will remain open to shrimping until 6 a.m. March 31, 2008.

Landings and Value

Shrimp are this state's most valuable commercial fishery and Louisiana continues to lead the nation in shrimp landings. Louisiana shrimp landings in 2007 totaled approximately 70.6 million pounds (all species combined/heads-off weight) and accounted for \$138.9 million in dockside sales. Overall, shrimp landings in 2007 declined approximately 15.7 million pounds from the previous year. Brown shrimp landings measured 29.9 million pounds and remained approximately 3.8 million pounds below the long-term mean (1976-2007). White shrimp landings measured 41.5 million pounds and declined approximately 15 million pounds from the previous year, yet exceeded the long-term mean by almost 9.4 million pounds. Brown shrimp landings in 2007 were the greatest during May, June, and July, while the monthly white shrimp production peaked in October and November, as opposed to peak landings in August and October in 2006. Seabob landings were the highest during January and December.

Crabs

Louisiana commercial blue crab landings for 2007 totaled approximately 43.9 million pounds, with a dockside value of approximately \$34.2 million. This represented a 17% decrease from the 2006 landings of approximately 52.9 million pounds, yet dockside value increased from \$31.7 million (2006) to \$34.2 million, reported in 2007. Stone crab landings for 2007 were 3,977 pounds. Stone crab landings, although relatively

low in comparison with other shellfish fisheries, increased approximately 60% from the 2006 landings of 1,633 pounds.

The major Division activity related to blue crabs in 2006-07, was the removal of derelict crab traps from coastal waters under the Abandoned Crab Trap Removal Program. Legislation introduced by the Department in 2003 gave the Commission the authority to establish a derelict crab trap removal program.

Funding for the 2007 crab trap clean up came from increases in recreational and commercial crab trap gear license fees, statutorily dedicated to support the abandoned crab trap removal program. Two winter trap closures and clean-ups in portions of the Barataria Bay and Lake Pontchartrain estuaries were conducted in 2007 (Table 1).

The following portion of the Barataria Bay estuary within that portion of Lafourche, Jefferson and Plaquemines Parishes was closed to the use of crab traps over a 10-day period extending from 6:00 a.m. on March 3, through 6:00 a.m. March 12, 2007:

From a point originating from the intersection of the Gulf Intracoastal Waterway and the northern shoreline of Hero Canal; thence due north to a point along the northern shoreline of the Gulf Intracoastal Waterway; thence southward and then westward along the northern shoreline of the Gulf Intracoastal Waterway to a point opposite the western shoreline of Bayou Perot; thence due south to the western shoreline of Bayou Perot; thence southward along the western shoreline of Bayou Perot to Little Lake; thence southward along the western shoreline of Little Lake to 29 degrees, 30 minutes, 00 seconds north latitude; thence eastward along 29 degrees, 30 minutes, 00 seconds north latitude to the eastern shoreline of Wilkinson Canal; thence northward along the eastern shoreline of Wilkinson Canal to its termination; thence due north to the western shore of the Mississippi River; thence northwestward along the western shore of the Mississippi River to a point due east of the northern shoreline of Hero Canal; thence due west to the northern shoreline of Hero Canal; thence westward along the northern shoreline of Hero Canal and terminating at its intersection with the Gulf Intracoastal Waterway.

The following portion of the Lake Pontchartrain estuary within portions of Jefferson, Orleans, St. Bernard, and St. Tammany Parishes as described below, was closed to the use of crab traps over a 10-day period extending

from 6:00 a.m. on February 24, through 6:00 a.m. March 5, 2007:

From a point originating from the intersection of the Lake Pontchartrain Causeway Bridge and the southern shoreline of Lake Pontchartrain; thence eastward along the southern shoreline of Lake Pontchartrain to Chef Meteor Pass; thence southward along the western shoreline of Chef Menteur Pass to Lake Borgne; thence due south a distance of one-half mile from the Lake Borgne shoreline; thence eastward and then northward a distance of one-half mile from the Lake Borgne shoreline to a point due east of Catfish Point; thence northwesterly across Rigolets Pass to the southeastern most point of land on Hog Island; thence westward along the northern shoreline of Rigolets Pass to its intersection with U.S. Highway 90; thence northward along U.S. Highway 90 to its intersection with U.S. Highway 190 (Fremaux Avenue); thence westerly along U.S. Highway 190 to Military Road; thence northward on Military road to U.S. Highway 190 (Gause Boulevard); thence westward on U.S. Highway 190 (Gause Boulevard) to Causeway Boulevard; thence southward along Causeway Boulevard and then the Lake Pontchartrain Causeway Bridge and terminating at its intersection with the southern shoreline of Lake Pontchartrain.

A total of 1,498 abandoned crab traps were collected and the overall documented volunteer participation included 11 recreational fishermen boat-days, 1 commercial crab fishermen boat-day, 16 LDWF boat-days, and 4 agency/university boat-days. On a

percentage basis, LDWF personnel collected (74%) of the traps, followed by recreational fishermen (15%), agency/university personnel (11%) and commercial crab fishermen <1%. LDWF personnel provided 50% of the effort as measured by boat-days, followed by recreational fishermen (34%), other agencies/universities (13%) and commercial crab fishermen (3%) (Table 1).

Four years of trap closures and trap cleanups have taken place under Louisiana's derelict crab trap removal program. The number of retrieved crab traps can best evaluate the success of the program, although volunteer participation should also be considered. A total of 15,950 derelict crab traps have been removed from Louisiana over three years and volunteer effort as measured by volunteer boat days was 186. The overall number of traps collected and volunteer participation was significant, verifying that a volunteer based derelict crab trap removal program could work.

There are however, several points that should be made concerning Louisiana's crab trap removal efforts. First, despite the high number of derelict traps that have been removed, only a small proportion of the derelict crab traps were removed from each closure area. Deep water traps in bayous and lakes were not collected and many shallow water traps were not retrieved, because the volunteers did not cover the entire closure area. Second, while a tremendous amount of publicity was generated and an enthusiastic endorsement was received from the general public and recreational and commercial fishermen, this enthusiasm was not reflected in direct volunteer participation, especially

TABLE 1. Results from 2006-2007 derelict crab trap removal program.

AREA		LDWF	AGENCY	PUBLIC	COMM.	TOTAL
Lake Pontchartrain	Boats	9	2	11	0	22
	Traps	447	110	217	0	774
Barataria	Boats	7	2	0	1	10
	Traps	657	57	0	10	724
Overall	Boats	16	4	11	1	32
	Traps	1104	167	217	10	1498
	Percent	73.7	11.1	14.5	0.7	100

Category Designations:

LDWF = Department of Wildlife and Fisheries
 AGENCY = Other state or federal
 PUBLIC = Sport boats
 COMMERCIAL = Commercial crab or shrimp

when trap cleanups are held in remote areas. There has been a decline in number of traps and volunteer participation in succeeding years. The number of traps removed and volunteer participation declined over the 2004 to 2007 period, from 6,676 traps to 4,623 traps to 2,935 traps to 1,498 and from 215 boat-days to 50 boat days to 31 boat days to 32 boat days. Trap cleanups coordinated by the Texas Parks and Wildlife Department showed a similar trend in volunteer participation from 2002 to 2007. Third, the deep water spring cleanups where only traps with floats and lines are visible and are dependent upon the cooperation of shrimp fishermen returning crab traps incidentally caught in their gear, were not successful. The reluctance of shrimp fishermen to retain traps for later disposal at shore based disposal sites was probably the main contributing factor. In contrast, the shallow water winter cleanups, which were dependent upon volunteers that actively targeted visible derelict traps, were more successful.

The Louisiana Crab Task Force has continued to meet and address issues that confront the industry. With assistance from the LDWF and Louisiana Seafood Promotion and Marketing Board, the Crab Task Force sponsored a “Crab Education Day” with members and staff of the House and Senate Natural Resources Committees. The Crab Task Force also continued discussions on a limited entry program for the commercial blue crab fishery, crab size limits, impacts of crabmeat imports and is making plans to host another crab education day.

Special Bait Dealer Permit Program

A total of 42 special bait dealer permits were issued to licensed wholesale/retail seafood dealers for the sale of live bait shrimp during 2007. This report summarizes only those data collected on submitted catch reports. According to permit catch reports, a total of 1,243,141 live shrimp (*Farfantepenaeus aztecus* and *Litopenaeus setiferis*) and 248,381 Atlantic croaker (*Micropogonias undulatus*) were harvested by dealers during the permit period. The number of live shrimp harvested during the 2007 permit period represents a 70% increase from levels reported last year. The number of trips taken exceeded those reported following the 2006 permit period. In 2007, dealers reported a total of 751 trips taken during the permit period and sales of approximately 1,737 pounds of market shrimp.

Cameron Parish dealers led all dealers in the number of live shrimp harvested, but were closely followed by dealers in St. Bernard Parish. Ranked in descending order, live shrimp harvests were next highest in

Jefferson Parish, Plaquemines, Terrebonne, St. Tammany, Orleans and Lafourche Parish. Dealers in Jefferson Parish led all in the number of trips taken (246) as well as in the number of croaker harvested (169,941).

Although the number of permits issued in 2007 were significantly higher than in 2006, changes to special bait dealer regulations ratified in 2007 may have accounted for the increased number of shrimp harvested. According to provisions in LAC:VII.329, the special bait dealer program now allows for the harvest of croaker and the optional use of skimmer nets to harvest live shrimp and croaker.

Assuming the retail values of 25¢ for live shrimp and 30¢ for live croaker, the total estimated dockside value of live shrimp and croaker marketed by permitted bait dealers during the permit period was approximately \$310,785 and \$74,514 respectively. Retail sales of dead shrimp marketed by permittees contributed \$3,474.

MOLLUSC PROGRAM

The Mollusc Program manages the oyster resource on nearly 1.7 million acres of public oyster seed reservations, public seed grounds, public oyster areas, and public tonging areas. Seed grounds are designated by the Wildlife and Fisheries Commission and include a large continuous area east of the Mississippi River, and another in the Vermilion/Cote Blanche/Atchafalaya Bay system. Seed reservations, public oyster areas, and tonging areas are designated by the legislature. The Department manages four seed reservations, including one east of the Mississippi River (Bay Gardene), one in the Barataria Bay system (Hackberry Bay), and two in Terrebonne Parish (Sister Lake and Bay Junop).

Oysters provide an economic benefit to the state, and the ecological benefits of oyster reefs are very important as well. Oysters are biomonitors of the overall health of the ecosystem and provide forage and shelter habitat for a variety of fish and invertebrate species. Oysters also affect water quality through filter-feeding activities, affect estuarine current patterns, and help provide shoreline stabilization. Because oysters are both economically and ecologically important, wise management of the public oyster resource is critically important to ensure that this valuable species continues to thrive in Louisiana’s coastal areas. The importance of the oyster resource to Louisiana’s economy is evident, as Louisiana commercial oyster landings of over 12.8 million pounds had a dockside value of nearly \$40.2 million in 2007.

Oyster Seasons

Statutory provisions mandate that the Department open the oyster season on Louisiana public oyster areas on the first Wednesday following Labor Day and close these areas no later than April 1 of each year. However, the Louisiana Wildlife and Fisheries Commission is authorized to extend the season beyond April 1, provided sufficient stocks are available for harvest. The Secretary of the LDWF may close seasons on an emergency basis if oyster mortality occurs, or delay the season or close areas where significant spat catch has occurred with good probability of survival, or if excessive amounts of shell in seed oyster loads occur. Management practices often use rotational openings of the four Oyster Seed Reservations in alternating years.

Management of the public oyster areas relies heavily upon data gathered through a comprehensive biological monitoring program. This program provides quantitative and qualitative data on oyster populations and other reef-associated animals. Approximately 150 square-meter samples are collected each July and over 150 dredge samples are collected from March through October. Square-meter data are collected using SCUBA and the data are used to measure the annual oyster stock size and for yearly season recommendations by the Department. Dredge data are used to monitor the overall health of the oyster resource during the year and to assess recruitment of new age classes of oysters into the population. Biologists also gather hydrological data on public oyster areas and develop harvest and fishing effort estimates by conducting boarding report surveys of oyster boats.

Oyster landings in Louisiana are divided between harvest from public oyster areas and private oyster leases. Historically, landings from private leases have

comprised 60%-80% of annual Louisiana oyster landings, and in 2007 nearly 63% of all oysters harvested in Louisiana came from private leases. Although the majority of oyster landings in recent years have come from private leases, the public oyster grounds continue to significantly contribute to annual oyster landings as landings in 2007 measured 4.79 million pounds of oyster meat. In addition, much of the oyster production from private leases is dependent upon small seed oysters (less than 3") transplanted from the public grounds to the leases for grow-out purposes.

Seed grounds and reservations are managed with the goal of providing seed oysters for transplant onto private oyster leases. However, a "Sacking Only Area" exists east of the Mississippi River in portions of Lake Fortuna and Lake Machias exclusively for harvest of sack-sized oysters. Harvest from Calcasieu Lake is typically for sack-sized oysters, as well since no private oyster leases exist nearby and due to the 25-sack per day limit. Sabine Lake harvest would likely mirror Calcasieu Lake, but poor water quality prohibits oyster harvest in Sabine Lake. Oyster harvesters use mechanical dredges on public grounds and reservations, and hand dredges in the Calcasieu Lake Public Oyster Area.

Similar to the 2006 season, the 2007 oyster season on public oyster areas east of the Mississippi River and in the Barataria Bay system was initially opened for only 18 days in September 2007, beginning on September 5. It was then closed for 1.5 months, until a reopening in mid-November 2007. This split season helped to protect the vital recruitment period of oyster larvae, which typically set on reefs between late September and early November. The 2007 oyster season on the public oyster areas are further described below in Table 2.

Table 2. Oyster season framework on the public oyster areas of Louisiana.

Public Oyster Area	Opened	Closed
Primary Public Oyster Seed Grounds East of MS River (including Lake Borgne and Bay Gardene)	November 13, 2006 September 5, 2007 November 12, 2007	April 1, 2007 September 21, 2007
Hackberry Bay Public Oyster Seed Reservation	November 13, 2006 September 5, 2007	April 1, 2007 September 21, 2007
Little Lake Public Oyster Seed Grounds	May 4, 2007 September 5, 2007 November 12, 2007	May 18, 2007 September 25, 2007
Lake Chien Public Oyster Seed Grounds	October 24, 2007	October 26, 2007
Lake Felicity Public Oyster Seed Grounds	October 24, 2007	October 26, 2007
Bay Junop Public Oyster Seed Grounds	N/A	N/A
Atchafalaya/Vermilion Public Oyster Seed Grounds	September 6, 2006 May 4, 2007 September 5, 2007	April 1, 2007 May 18, 2007
Calcasieu Lake West Cove Conditional Management Area	October 16, 2006 October 15, 2007	April 30, 2007
Calcasieu Lake Conditional Management Area	November 1, 2006 November 1, 2007	April 30, 2007
Lake Mechant	October 24, 2007	October 29, 2007
Sister Lake	November 12, 2007	November 19, 2007

Oil and Gas Monitoring Within the Public Oyster Areas

The Louisiana Department of Wildlife & Fisheries (LDWF) acts as a commenting agency on all Coastal Use Permit applications received by the Louisiana Department of Natural Resources (DNR), for projects located within LDWF managed areas. The primary objective of the Oil and Gas Management Section is to monitor and minimize impacts on oyster resources resulting from oil and gas operations within public oyster areas. The section achieves this by reviewing and commenting on permit applications and requiring a water bottom assessment be completed on each project area and proposed access route. The sampling protocol, developed by LDWF biologists, outlines what data is required to be collected for projects located in the public oyster areas and is available online at <http://dnr.louisiana.gov/crm/coastmgt/permitsmitigation/oyster/sampling-protocol.pdf>.

These assessments identify the type of bottom (soft mud, firm mud, buried shell, exposed shell, oyster reef) and the live oysters that will be impacted by the project. After these assessments are reviewed and the impacts are calculated, the project can either be modified to reduce possible impacts, or allowed to be permitted as proposed. In 2007, approximately 320 assessments were reviewed by section staff. Recommendation letters, which include recommended permit conditions

designed to reduce impacts to oyster resources, were provided to DNR for each project.

Compensation for impacts is required as a condition of each permit issued for projects within the boundaries of the public oyster areas. The amount is calculated using the water bottom assessments and a rate schedule developed by LDWF economists. This rate schedule is available online at:

<http://dnr.louisiana.gov/crm/coastmgt/permitsmitigation/oyster/rate-schedule.pdf>. In 2007, approximately \$32,854 was collected as compensation for impacts and deposited into the Public Oyster Seed Ground Development Account. State law directs LDWF to utilize these monies to restore, enhance, and manage oyster resources on the public oyster areas.

Oyster Leasing

The moratorium on the issuance of new oyster leases, at the request of Louisiana Department of Natural Resources (LDNR), remained in effect throughout 2007. The moratorium was requested in 2002, in order to reduce the state's liability related to coastal restoration efforts. This moratorium does not affect lease renewals and 578 renewal applications were processed.

The Oyster Lease Survey Section moved to the UNO Advanced Technology Center located at

2021 Lakeshore Drive, Suite 400, New Orleans, Louisiana and continues to maintain a website, which provides information to the public about oyster leasing in Louisiana. This website contains a searchable Geographic Information System (GIS) database of current leases, historical lease statistics, and recent news articles about oysters. The website has had thousands of visits since it was developed and placed on the internet in March of 1998, and is available at: <http://oysterweb.wlf.louisiana.gov/oyster/>.

FINFISH PROGRAM

The primary objective of the finfish program is to make rational recommendations for the management of coastal finfish stocks based on a database of scientific information. The information in the database is collected through fishery independent and fishery dependent sampling. These programs are cooperative with NMFS and the Gulf States Marine Fisheries Commission. The fishery independent monitoring program is an ongoing collection of data by LDWF biologists who conduct surveys designed to sample coastal waters in an objective manner. Such surveys collect information based on geographic ranges independent of commercial or recreational fishing operations. The Marine Fisheries Division fishery dependent monitoring program collects information from fishers, processors and observers based on methods developed by NMFS for similar programs.

Independent Monitoring

A comprehensive monitoring program was developed in 1985 to protect or enhance these valuable resources by providing information regarding the status of fish stocks that occur in the coastal waters of Louisiana at some time during their life cycle. Three gear types are used coast wide to sample various year classes of estuarine dependent fish.

A bag seine is used to sample young of the year and provide information on growth and movement. A gill net is used to sample juvenile, sub-adult and adult fish and provides information on relative abundance, year class strength, movement and gonad condition. A trammel net is used to provide information on relative abundance, standing crop and movement. Gill net samples are collected semi-monthly from April through September, and monthly from October through March using a strike net technique. The gill nets are set in a crescent shape, open towards the shoreline and then circled several times by the sampling boat, driving those animals present into the net. Trammel net samples are taken monthly from October through March. Seine samples are taken monthly from January

through August, and semi-monthly from September through December.

Hydrological readings (conductivity, salinity, and water temperature) are collected with each biological sample, as are wind direction and speed. Samples are collected at specific locations and arranged in such a manner so as to cover the beach, mid-marsh and upper marsh areas of all major bay systems throughout coastal Louisiana. The catch and hydrological information is summarized for each Coastal Study Area, on a monthly basis, to give resource managers information on the current condition of the resource. The pertinent life history information for the important species is also used in developing analytical and predictive models. During the 2007 sampling year Marine Fisheries field personnel collected 2,079 seine, gill and trammel net samples combined, to obtain a 99.8 percent success rate.

Dependent Monitoring

The value of commercial landings in Louisiana exceeded \$290 million in 2007, a \$20 million increase from the 2006 landings year. The Department continues to collect commercial statistics through the Trip Ticket Program that was implemented in 1999. Through this program, commercial landings data are collected on a trip basis from wholesale/retail seafood dealers, crab shedders and commercial fishermen holding fresh products licenses. There were over 242,433 commercial fishing trips reported in 2007, producing nearly 1 billion pounds of seafood.

Starting in May 2000, an electronic trip ticket program was developed and made available to dealers. To date, roughly 138 dealers utilize the computerized program and submit their trip ticket data to the Department electronically. Trip ticket information has been used to enhance the accuracy of stock assessments conducted by state and federal fishery management agencies, and to estimate damages from Hurricanes Katrina and Rita in 2005.

Along with the collection of commercial landings data, the Department also conducts trip interviews of commercial fishermen. Biologists interview commercial fishermen to gather detailed information about a specific fishing trip. The federally funded program focuses on species of greatest state and federal interest.

The Department continues to monitor recreational fisheries through the Marine Recreational Fisheries Statistics Survey (MRFSS) in cooperation with NMFS and GSMFC. This fisheries dependent program uses dockside interviews of recreational anglers to determine

catch and a telephone survey to determine effort. The MRFSS survey in Louisiana reported over 4.5 million marine recreational fishing trips taken by approximately 1.1 million anglers who caught approximately 16.7 million spotted sea trout and 5.7 million red drum, in Louisiana waters in 2007.

Finfish Stock Assessments

Division personnel updated stock assessments for black drum, striped mullet, southern flounder and sheepshead in 2007. These assessments use yield-per-recruit (YPR) and Spawning Potential Ratio (SPR) to estimate the impact of fishing pressure on potential yield and the spawning potential of these stocks in Louisiana waters. Estimates derived from YPR and SPR are based on information regarding the growth rate and spawning potential of the fish, and on estimated natural mortality rate (M) and fishing mortality rate (F) on the stock. A conservation threshold of 30% SPR was established by Act 1316 of the 1995 Regular Session of the Louisiana Legislature for black drum, sheepshead, southern flounder, and striped mullet.

Black Drum - The result of YPR analysis indicate that if $M=0.1$ (the most conservative value within the range of estimates), the fishery prior to existing regulations (Act 1316) was operating above $F_{0.1}$ and below F_{MAX} with yield of 92% of maximum, and SPR at 44%. An M of 0.15 or 0.2 would indicate a more lightly fished stock with yield being 66% to 45% of maximum and with SPR being 57% to 66% respectively.

Southern Flounder - The result of YPR analysis based on disappearance rate calculations indicate that for the years assessed (2002-2006) if $M=0.5$ (the most conservative value within the range of estimates), the fishery was operating between $F_{0.1}$ and F_{MAX} , with yields of 97% to 100% of maximum and SPR at 23% to 26%. An M of 0.8 (the highest value within the range examined) would produce yields of 76% to 83% of maximum with SPR at 42% to 47%.

Striped Mullet - The result of YPR analysis indicate that if $M=0.3$ (the most conservative value within the range of estimates), the fishery the current was operating above $F_{0.1}$ and near F_{MAX} with yield near 99% of maximum, and SPR near 35%. An M of 0.6 would indicate a more lightly fished stock with the fishery operating below $F_{0.1}$, with yield being 75% of maximum and with SPR being near 69%.

Sheepshead - The result of YPR analysis indicate that if $M=0.2$ (the most conservative value within the range of estimates), the fishery in the years assessed (1999 – 2006) was operating near or below $F_{0.1}$ and well below

F_{MAX} , with yield of 69% to 77% of maximum, and SPR at 51% to 59%. An M of 0.3 (the highest value examined) would indicate a more lightly fished stock with yield being 35% to 44% of maximum and with SPR being 72% to 78%.

Finfish Management Actions

January 2007

- Set 2007 red snapper commercial regulations, including individual fishing quota rules.
- Secretary provided with authority to close commercial seasons of reef fishes, if quota for species group is filled in Federal waters.
- Set recreational seasons for gag, red and black grouper to close at 12:01 a.m. on Feb. 15, 2007, and remain closed until 12:01 a.m. on March 15th.
- Set recreational trip limits on grouper to be 5 per person per day, but not to exceed 1 speckled hind or 1 warsaw grouper per vessel per day, or 1 red grouper per person per day. The captain or crew of a charter vessel are not allowed to retain grouper.
- Set 2008 king mackerel commercial season and provide Secretary with authority to close commercial season for king mackerel if quota for species is filled in Federal waters.
- Commercial large coastal shark first trimester season opened on the January 1st at 12:01 a.m.

February 2007

- Present 2007 stock assessments for striped mullet, black drum, southern flounder, and sheepshead.

April 2007

- Commercial and recreational shark season closed until June 30th.
- Reduced commercial red snapper size limit to 13" TL effective at 12:01 a.m. on April 5th.
- Commercial fishery for tilefishes closed on April 18th at 12:01 a.m.
- Recreational red snapper season opened on the April 21st at 12:01 a.m.

May 2007

- Recreational red snapper creel and possession limit reduced to 2 fish per person effective May 2nd, with no creel limit for captain and crew of charter vessels.
- Commercial fishery for tilefish closed on the May 18th at 12:01 a.m.

June 2007

- Commercial deepwater grouper season closed on the June 2nd at 12:01 a.m.

September 2007

- Commercial large coastal shark fishery closed on the September 22nd, at 11:30 p.m.

November 2007

- Commercial king mackerel fishery closed on the November 7th, at 12 noon.

The Finfish Management Program interacts with other Department, State, regional, and national issues. The program contributes to the Gulf and Atlantic Aquatic Invasive Species Task Force that engenders cooperation on these issues for states from South Carolina to Texas and Mexico; it is also part of the Louisiana Aquatic Invasive Species Task Force. It works with the Gulf of Mexico Fishery Management Council Stock Assessment Panel to evaluate the status of fish stocks managed by the Council. It works with the Gulf States Marine Fisheries Commission (GSMFC) to develop fishery management plans and stock assessments for state-managed fisheries that have inter-jurisdictional management considerations. The program also contributes to Department consideration on permitting issues that relate to finfish including coastal use permits, Liquefied Natural Gas (LNG) terminals, mariculture, and artificial reefs.

HABITAT PROGRAM

Artificial Reefs

The Louisiana Artificial Reef Program (LARP) was founded in 1986, through the cooperative efforts of the LSU Coastal Fisheries Institute (LSUCFI) and the LDWF. Resultant legislation called for the development of a State Artificial Reef Plan and provided for an Artificial Reef Program in Louisiana (LARP). Act 100 of the 1986 Legislature established that LDWF would operate the Program with logistical support from LSUCFI. LSUCFI and LDWF produced a plan in the fall of 1986 that was accepted by the Louisiana Legislature. The plan outlined the siting, permitting and monitoring requirements of the program.

The LARP was established to use obsolete oil and gas platforms to provide habitat for Louisiana's coastal fishes and fishing opportunities for recreational and commercial harvesters. Federal law and international treaty require oil exploration companies to remove these platforms one year after production ceases. The LARP has provided an opportunity for oil companies to contribute to maintenance of fisheries habitat. Since its inception, fifty-five oil and gas related companies have participated in the offshore program and donated the

jackets of 168 oil and gas structures, 40 Armored Personnel Carriers (APC's), and one offshore tug structure were installed at select locations as artificial reefs. In addition, the reef program also developed twenty-two inshore reefs, primarily low profile reefs composed of shell and limestone. LDWF constructed eight reefs and fourteen others were constructed in association with public conservation groups. In working with one of these groups, the Department constructed four reefs using reef balls. Reef balls have been deployed successfully in tropical and oceanic environments, but this was the first attempt to deploy in an estuarine setting. Twenty-four obsolete oil platforms were deployed as artificial reefs during the 2007 calendar year.

In June 2004, the Department deployed its first deep-water reef, as part of its deep-water reef program. The structure, located in South Pass Block 89, approximately 15 miles south of the mouth of the Mississippi River, was previously owned by Marathon. The reefs are in water depths in excess of 400 ft. This water depth was chosen to minimize the impacts on the shrimp fishery. It has been reported that less than 1% of the shrimping activity takes place at these water depths. In addition these platforms are very difficult and expensive to remove. The partial removal preserves the hard bottom habitat and maintains fishing opportunities for its residents, the oil and gas industry saves money on decommissioning the platforms, but more importantly the fish keep their homes. Since that time, two additional platforms have been deployed as deepwater reefs.

The oil and gas industry in the Gulf of Mexico continues to recover from the devastation of the 2005 hurricane season; they have been faced with removing 165 structures and 8 mobile offshore drilling units destroyed or damaged by the storms. Industry has sought alternatives in cleanup activities to reduce the cost of removal and have petitioned the LARP to accept structures at the location they were destroyed. The LARP manages a Special Artificial Reef Sites (SARS) program specifically aimed at establishing artificial reefs under unusual and/or exceptional circumstances, including occurrences such as natural and man-made catastrophes. The LARP attempts to minimize negative impacts and the cost of removing these structures, while maintaining and enhancing fisheries habitat. The SARS projects approved at the end of 2006 are underway with several nearing completion. Hurricane damaged platforms continue to be evaluated for acceptance into the SARS program.

Southeast Area Monitoring and Assessment Program (SEAMAP)

The Southeast Area Monitoring and Assessment Program (SEAMAP) is a cooperative state, federal, and university program for collecting, managing and disseminating fishery-independent biological and environmental data and information in the southeastern United States. Fishery-independent data are those collected by fisheries scientists, rather than fishermen. SEAMAP collects data on fish stocks that are managed jointly by the states and federal government, and conducts a variety of data collection activities including a Fall Shrimp/Groundfish Survey, Spring Plankton Survey, Reef Fish Survey, Summer Shrimp/Groundfish Survey, and Fall Plankton Survey among other surveys. During 2007, the Department conducted summer (June), fall (October) and (winter (December) surveys in the Louisiana territorial sea and nearshore EEZ from the Mississippi River to Atchafalaya Bay. These seasonal day-night surveys provide information on the abundance and distribution of critical life stages of major Gulf of Mexico species. Shrimp/groundfish and zooplankton communities were sampled, as were associated environmental parameters.

The summer 2007 survey (LA071) was conducted June 26-29, aboard the chartered vessel *Pelican*. All 12 scheduled daytime and nighttime demersal trawl stations and six plankton stations were sampled successfully. All seven plankton stations were complete.

The fall 2007 survey (LA072) was conducted June 26-29, aboard the chartered vessel *Pelican*. All 12 scheduled daytime and nighttime demersal trawl stations and six plankton stations were sampled successfully. All seven plankton stations were complete.

The winter 2007 survey was conducted December 12-15 (LA073), aboard the chartered vessel *Pelican*. All 12 scheduled daytime and nighttime demersal trawl stations and six plankton stations were sampled successfully. All seven plankton stations were complete.

Oil Spill Contingency Planning and Response

The Department's Oil Spill Task Force continued in 2007 to develop and implement plans to protect and restore the State's wildlife, fishery, and habitat resources from the adverse effects of oil spills.

Pre-assessment data collection for NRDA was begun for spills that occurred during 2007. These were:

- January 2007 Expert Oil & Gas well blowout in Bayou Perot

The Department continued damage assessment activities and monitoring spills:

- May 2007 Mariner pipeline spill near South Pass of the Mississippi River
- January 2007 Harvest Oil pipeline spill in Grand Bay
- January 2007 Forest Oil pipeline spill in Garden Island Bay
- June 2006 CITGO tank overflow in Calcasieu River
- January 2006 Shell pipeline spill in Joseph's Bayou in South Pass
- October 2005 Gold King/Shell had a mystery spill in Garden Island Bay
- September 2005 multiple small spills related to Hurricane Rita in the western portion of the State
- August 2005 multiple small spills related to Hurricane Katrina in Southern Louisiana
- June 2005 Amerada Hess tank overflow onto Breton Island
- Restoration planning for an April 2005 Exxon/Mobil spill in West Bay Champagne north of Grand Isle
- January 2005 Shell pipeline spill in Joseph's Bayou in South Pass
- Restoration planning for September 2004 Gulf Production tank failure in Raphael Pass
- September 2004 multiple spill related to Hurricane Ivan in Plaquemines Parish
- Restoration Planning for a December 2003 Exxon/Mobil spill on Mendicant Island
- Restoration Planning for a March 2003 Exxon/Mobil spill in Lake Washington
- Restoration Planning for a December 2002 Hilcorp spill in Duck Lake
- Restoration monitoring for a September 2003 Devon Energy tank rupture in North Pass
- Restoration Planning for a Unocal pipeline rupture in East Lake Palourde
- Restoration planning for a April 2002 BP pipeline spill in Little Lake
- Restoration Planning for a April 2001 Williams pipeline spill in Mosquito Bay
- Restoration monitoring for a November 2000 Marine Oil Trader 3 Ltd. Vessel grounding the Mississippi River
- Restoration planning for a September 1998 Equinox well blowout in Lake Grand Ecaille

- Restoration monitoring for a June 1997 Apache pipeline spill in Vermillion Bay

In addition, the Department is participating with other state and federal agencies in planning restoration of hazardous materials sites. Two planning activities continue: Bayou Trepagnier in St. Charles Parish and Calcasieu River in Calcasieu Parish.

The Department also evaluated and responded as needed to approximately 3700 oil spill notifications, which were received from State Police. These notifications cover a range of hazardous emissions and chemical spills, as well as oil spill related incidents.

Statewide Hydrographic Monitoring

The LDWF, through an interagency agreement with the U.S. Geological Survey, continued to collect constant records of salinity, water temperature, tide level, wind speed and direction, and barometric pressure from a network of 15 stations located across coastal Louisiana. The data were collected in near real-time, and LDWF provided database management for the program. The data were used for managing marine fisheries and for investigating the extent and impact of a variety of environmental conditions: such as tropical weather systems, drought, hypoxia and red tides in Louisiana coastal waters. The data also were provided, on request, to other state and federal agencies, as well as university researchers. The near real-time data is available to the public through the USGS website <http://la.water.usgs.gov/default.html#QuickLinks>. This website has been designed to include Google Earth functionality and to take full advantage of the features; Google Earth must be installed on users PC. For those without Google Earth, access to the data can be found at <http://waterdata.usgs.gov/la/nwis/nwis>. These data are posted in raw, unedited form within approximately 4 hours of the time the instrument measurement was recorded in the field. The data are updated frequently to provide the best, most accurate information possible.

Two stations remained offline: 105 at the Rigolets and 117 in the Mississippi Sound. These two stations were completely destroyed during Hurricane Katrina in 2005 and, so far, are not operational.

Station 117 will have all new state-of-the-art equipment and a redesigned and more protected platform that is expected to be operation in July 2008, at its original location.

Station 105 may have to be moved altogether away from the location, interrupting the data flow from that

point and therefore needs special consideration in its site selection.

The Department continues to update the database with rainfall, air temperature, and river discharge readings recorded throughout the state.

National Coastal Assessment (Louisiana)

LDWF continued to participate in the EPA's National Coastal Assessment program. Department personnel worked on the 2006 summary report of the 2006 sampling season and reviewed several version of the EPA's 2003 report on the state of the nation's shorelines.

While LDWF was not expected to sample in 2007, EPA reports were still being circulated for editing and publication. LDWF was also notified by EPA that they should stand prepared to begin meeting on the preparation for the 2010 five-year sampling period that is in its early inception stage.

Crab Effort

In 2006, LDWF began a one year pilot study to collect effort data on the blue crab fishery. The study was conducted from October 1, 2006 to September 30, 2007. The goal of this project was to interview commercial crab fishermen and determine the number of gears set by sub-basin area, soak times, by-catch information, and baiting habits. More than 650 surveys were collected, and preliminary data was presented to the GSMFC at the fall 2007 Meeting. The pilot crab effort was a success and demonstrated how the trip ticket landings reports could be used to direct dockside effort sampling.

Coastal Wetlands

In 2007, the Marine Fisheries Habitat Division continued to work with state and federal agencies to develop strategies for rehabilitating coastal habitats in Louisiana. Marine Fisheries staff worked with federal and state planners to develop strategies that ensure that new or modified designs avoid, minimize or mitigate adverse environmental impacts from large coastal projects. Staff participated in planning for the federal Louisiana Coastal Protection and Restoration plan, a comprehensive plan encompassing both coastal restoration projects and large hurricane protection levees mostly in the New Orleans vicinity. The project includes evaluating permutations of various wetlands creation and restoration projects with proposed levee alignments; that work is on-going. Other current projects include annual planning for the Coastal Wetlands Planning Protection, and Restoration Act, environmental planning for the Morganza to the Gulf

Hurricane Protection Levee, the Donaldsonville to the Gulf Hurricane Protection Levee, the Houma Navigation Canal deepening, the Acadiana to the Gulf of Mexico Access Channel, and management of dredged material in the Calcasieu System.

Seismic Monitoring

The Seismic Section was created in 1939 specifically to protect oysters, fish, shrimp, wildlife and the associated habitat from injury due to seismic exploration. Seismic agents monitor geophysical companies to protect Louisiana's fish and wildlife resources, by ensuring compliance with LDWF seismic rules and regulations. During 2007 the seismic section monitored 23 projects, throughout the state.

Freshwater Diversion Monitoring

Louisiana has a number of freshwater diversion structures in place, the largest of which are the Caernarvon and Davis Pond structures. Caernarvon was completed in 1991 and Davis Pond was completed in 2002; drainage and levee issues have prevented its being run at its intended flows, as yet. Marine Fisheries personnel monitor the effects of both diversions on the fish and wildlife populations and vegetation in the Breton Sound and Barataria basins, respectively.

Caernarvon Biological Monitoring

The structure consists of a five-box culvert, with each culvert measuring 15 square feet, and is capable of allowing a maximum discharge of 8000 cubic feet per second (cfs). The average monthly discharge and salinities in the Breton Sound Basin are illustrated below in (Figure 1) and (Figure 2).

Figure 1. Average monthly discharge of the Caernarvon freshwater diversion structure.

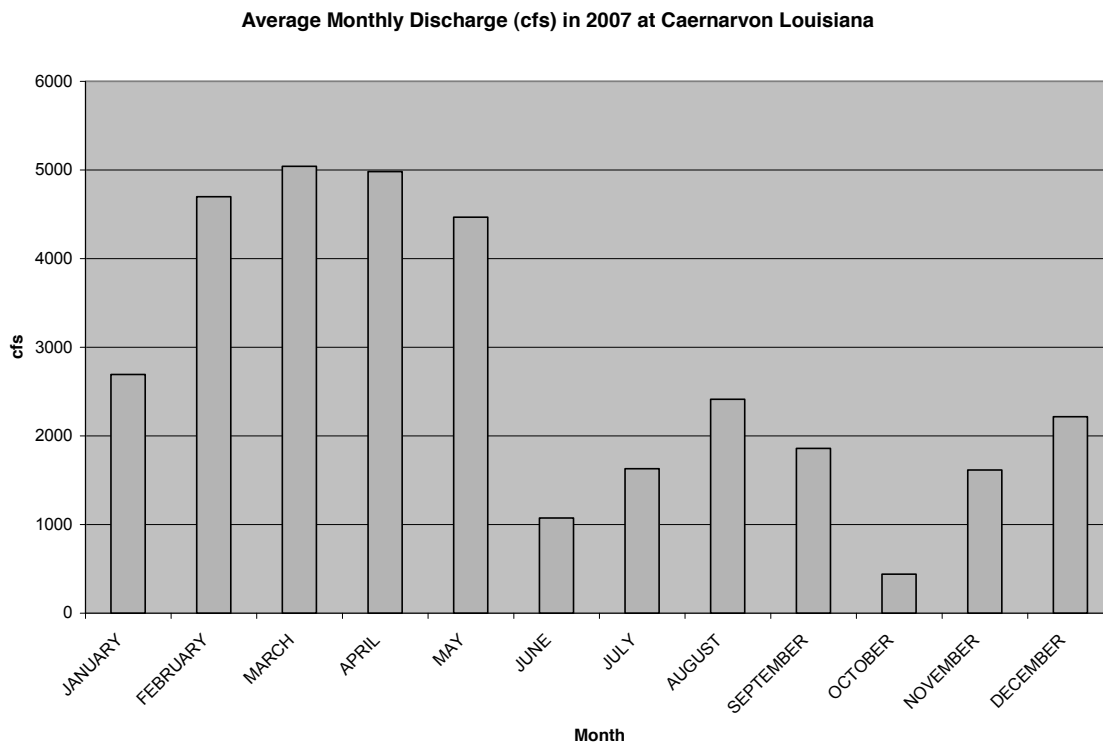
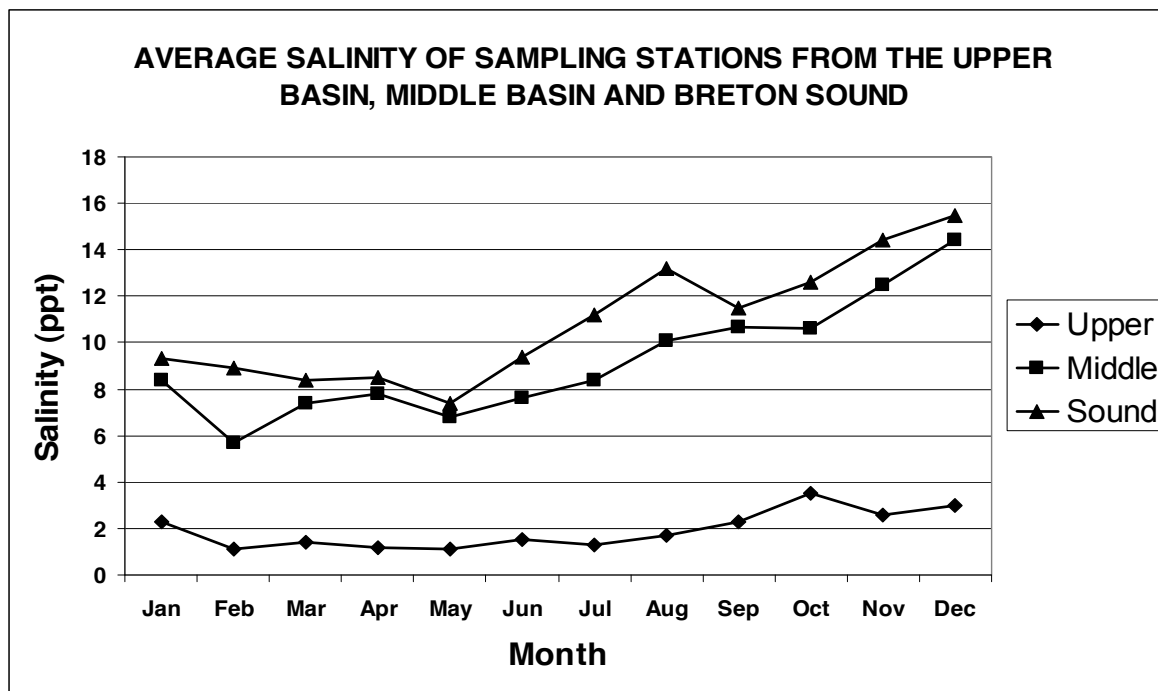


Figure 2. Average monthly salinity in Breton Sound Basin.



Davis Pond Biological Monitoring

The Davis Pond Project began operations in July 2002; ongoing maintenance designed to address problems with flooding in the ponding area north of Lake Cataouatche limited the amount of freshwater diverted through the structure. Though 2007 was the fifth full year of the post-construction operation, continued problems with diverted water leaving the ponding area caused operators to moderate flow. Despite the moderate discharge amounts, a thriving fresh water fishery has been developing in the upper part of the estuary. See (Figure 3) and (Figure 4). Aquatic Vegetation (SAV) has been flourishing in Lake

Cataouatche in the uppermost portion of the basin. For several years now and freshwater fish samples have been increasingly difficult to obtain in Lake Cataouatche, due to the restrictive nature of moving a boat and nets through SAV. The majority of the SAV growth in Lake Cataouatche is comprised of coontail, hydrilla, filamentous algae, scattered duckweed, and little bits of common salvinia. There are several travel lanes kept open in the lake by fishermen, due to the excellent fishing present in the lake. This increased SAV growth is likely due to the increased flow through the Davis Pond structure.

Figure 3. Average monthly discharge at the Davis Pond freshwater diversion structure.

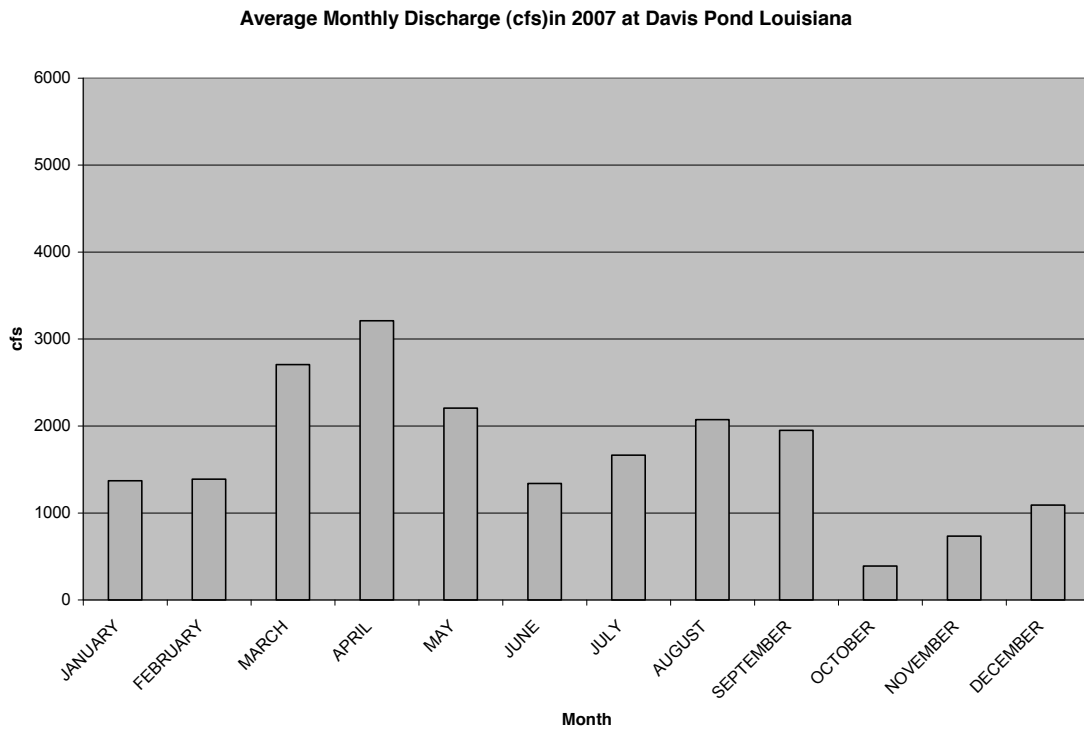
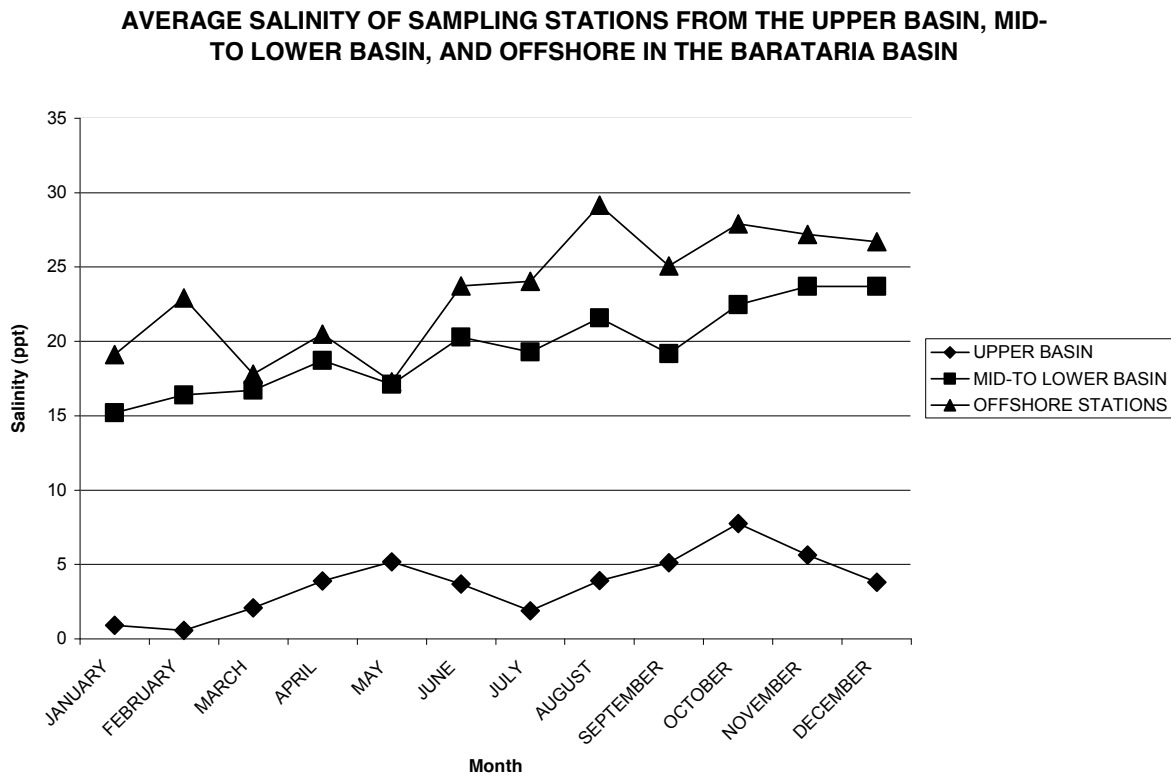


Figure 4. Average monthly salinity in the Barataria Basin.



RESEARCH PROGRAM

Lyle S. St. Amant Marine Laboratory

The Marine Laboratory's primary mission is to conduct the research required to manage Louisiana's marine fisheries. The laboratory is made available for the use of other Department and non-Department entities engaged in fisheries management, enforcement, coastal restoration, marine education, and serves as headquarters of Coastal Study Area III in the Barataria Bay estuarine system. Several LSU and Nicholls State University researchers make use of laboratory facilities to conduct marine and environmental research. The marine laboratory also supports the monitoring of the Grand Isle Sulphur Mine Reef for the Louisiana Artificial Reef Program.

Sport Fish Restoration

The Federal Aid in Sport Fish Restoration Act, commonly referred to as the Dingell-Johnson Act, passed on August 9, 1950, and was modeled after the Pittman-Robertson Act to create a parallel program for management, conservation, and restoration of fishery resources. The Sport Fish Restoration program is funded by revenues collected from the manufacturers of fishing rods, reels, lures, flies and artificial baits, who pay an excise tax on these items to the U.S. Treasury. An amendment to the Act in 1984 (Wallop-Breaux Amendment), added new provisions by extending the excise tax to previously untaxed items of sport fishing equipment.

Appropriate State agencies are the only entities eligible to receive grant funds. Each State's share is based 60 percent on its licensed anglers (fishermen) and 40 percent on its land and water area. No State receives more than 5 percent, or less than 1 percent of each year's total apportionment. The program is a cost-reimbursement program, where the state covers the full amount of an approved project, then applies for reimbursement through Federal Aid, for up to 75 percent of the project expenses. The state must provide at least 25 percent of the project costs from a non-federal source. During 2006 Louisiana used the marine share of its Sport Fish Restoration Funds in support of the following projects and activities:

Marine Boating Access

During 2007, this project continued development of marine boating access for recreational anglers. It is an objective of the Department to strengthen its ability to meet effectively the consumptive and non-consumptive needs of the public for marine fish resources.

Sport Fish Utilization of Artificial Reefs vs. Open Water Habitats (F-130-R)

The purpose of this research is to gain understanding of differential habitat utilization and energetics of natural vs. manmade oyster reefs for selected fish species. The project evaluated and documented the value of limestone based inshore artificial oyster reefs as essential fish habitat for important marine sport fish species, associated forage species and benthic invertebrate colonizing species. This was a cooperative effort between the Department and LSU. This project started on January 1, 2004 and was completed on December 31, 2007.

Fisheries and Habitat Assessment of Bayou St. John (F-131-R)

Bayou St. John and the City Park Lagoons are located near the downtown area of New Orleans, Louisiana. This grant will assess and restore habitat, determine the quantity and quality of sport fish populations, and quantify fishing pressure. Modifications in the water supply system will allow estuarine organism inflow into the entire system. Public use should increase as a result of improved fishing. This is a cooperative effort between the Department, New Orleans City Park and the University of New Orleans (UNO). This project was continued and is scheduled to be completed by December 31, 2010.

Assessment of Louisiana's Marine Finfishes (F-97)

High quality data for the stock assessment for various species are essential for making management decisions. This project will determine the spawning ratio of the major recreational saltwater finfish in order to comply with legislative mandates that regulatory action be taken when the Spawning Potential Ratio (SPR) falls below 30%. The goal is to ensure that the stocks of these finfish are not over fished. The spawning potential ratio will be determined using age, growth, and fecundity. The LSU will assist with the analysis of samples. Marine Fisheries sampling crews obtain otoliths from important marine fish. Additional work is added, as needed, to address age, growth, and reproductive biology of selected finfishes to support stock assessment efforts. This project started on July 1, 1999 and is an ongoing project.

During the 2007 calendar year, otoliths were collected from black drum (1086 collected, 1084 aged), striped mullet (949 collected, 939 aged), sheepshead (1165 collected, 1161 aged), gray snapper (437 collected, 436 aged), spotted seatrout (1419 collected), and red drum (1121 collected, 1108 aged). In 2006, spotted seatrout otolith processing stopped, so otoliths could be used for additional analyses by LSU.

Louisiana Marine Sport Fish Investigation, Laboratory Acquisition/Development, Southeast Louisiana (F-108)

This grant is used to construct a new marine fisheries laboratory facility on a 7.8 acre tract in Grand Isle, Louisiana. This new laboratory facility will replace the Lyle S. St. Amant Marine Biological Laboratory located on Grand Terre Island. This project started on September 1, 2001, and is scheduled to be completed by October 1, 2008.

Evaluating Sport Fish Use of Created Wetlands in the Atchafalaya Delta (F-107)

The Atchafalaya Delta is losing coastal wetlands and the Coastal Wetlands Planning, Protection and Restoration Act provided funding to restore the wetlands. Dredge spoil from the River will be used to create new wetland habitat. Phases one and two of this project examined the suitability of this habitat for sport fish production. This is a cooperative project between the Department and LSU. These data will be used in future planning efforts to optimize the creation of habitat for sport fish. Phase three added sampling from the Wax Lake Delta, to be used to compare altered and unaltered systems. Phase one started on September 1, 2001 and was completed on June 30, 2003. Phase two started on October 26, 2003 and was completed on June 30, 2006. Phase three started on July 1, 2006 and will be completed on June 30, 2008.

Identifying Essential Fish Habitats in Barataria Bay (F-106)

Objectives for phases one and two of this project were to describe essential fish habitat (EFH) using sidescan sonar, split beam hydro acoustics and stable isotope techniques. It will also identify EFH in Barataria Bay and quantified its value to important sport fish species. These techniques will yield data that can be used to address the protection and conservation of habitats important to marine, estuarine and anadromous finfish. Through a partnership, LDWF and LSU developed a monitoring program, established sampling protocols, and conducted field sampling. The project identifies juvenile habitat use by sampling tissue and examining differences in isotopic composition. These data will be integrated together to provide marine fisheries managers with habitat use by various fish species. Phase three is titled "Can Pulsed-River Diversions Shift Ecological Baselines in Louisiana Estuarine Ecosystems?" Phase three was initiated to develop a better understanding of the relationship between wetland habitats and fisheries productivity in Louisiana and the efforts to maintain and restore both. Another objective of phase three is to develop an explicit understanding of how higher trophic levels are affected by landscape and smaller-scale changes in wetlands

topography and estuarine hydrology via direct collaboration and contemporaneous sampling with wetland scientists. This project is currently in the third phase of continuing research. Phase one started on September 1, 2001 and was completed on August 30, 2003. Phase two started on November 1, 2003 and was completed on June 30, 2006. Phase three is scheduled for completion by June 30, 2009.

Marine Sport Fish Tagging Study (F-124)

This project was developed to establish a scientifically and statistically sound marine sport fish tag and recapture study, utilizing a diverse partnership, but designed specifically to employ and educate anglers, through their participation in the study, about the importance and need for management and conservation. In addition, this study was developed to gather data to improve our understanding of marine sport fish movements and patterns of habitat use, age structure, growth and mortality rates, estimates of population size, and rates of immigration and emigration in support of state stock assessments. During 2007, volunteer recruitment for the Marine Sport Fish Tagging Study continued. Over 4,000 additional spotted seatrout and red drum were tagged and released in coastal Louisiana during 2007. This is a cooperative project between the Department, LSU, UNO and the Audubon Aquarium of the Americas. The first three years of this project were complete on June 30, 2007; however, this project has been continued for an additional three years.

An Analysis of Spotted Seatrout Feeding Habits within Louisiana Bay Systems (F-123)

This project will determine whether food web assemblages and trophic positions of sea trout differ among three distinct habitats, using carbon and nitrogen stable isotope analysis and fatty acid analysis. This is a cooperative project between the Department and the UNO. This project started on July 1, 2004 and is scheduled to be completed by June 30, 2008.

Louisiana Aquatic Outreach (F-136-EO)

This aquatic outreach project was developed to disseminate information on the results and benefits of aquatic Sport Fish Restoration grants, being conducted in Louisiana. This project addresses Louisiana's current aquatic Sport Fish Restoration grants, as well as additional grants, if any are added over the course of this outreach grant. The dissemination of this information is through audio, video, written materials, web site links, public displays, and the media. This project began on July 1, 2007.

THE HURRICANES OF 2005

Fishery Disaster Assistance Programs

Hurricanes Katrina and Rita impacted the Louisiana coastline and it's socially, culturally, and economically important fisheries. In response to the hurricanes of 2005, Congress authorized fishery disaster relief in June, 2006 (Public Law 109-234), subsequently the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), granted funds to the Gulf States Marine Fisheries Commission (GSMFC) to aid Louisiana, Mississippi, Alabama, Texas and Florida in rebuilding fisheries. Under this GSMFC Emergency Disaster Recovery Program (**EDRP I**), Louisiana's three subgrant awards are: Reseeding, Rehabilitating and Restoring Oyster Reefs; Rehabilitating Oyster Bed and Shrimp Grounds; and Cooperative Research to Monitor Recovery of Gulf Fisheries.

Congress authorized additional funding under the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act (Public Law 110-28), to provide assistance to the Gulf of Mexico commercial and recreational fishing industries affected by Hurricanes Katrina and Rita. Under this GSMFC Emergency Disaster Recovery Program (**EDRP II**), Louisiana's two subgrant awards are: Economic assistance to commercial fishers, charterboat operators, vessel owners and wholesale/retail seafood dealers (to LDWF Office of Fisheries); and Domestic Product Marketing and Promotion of Louisiana Wild-Caught Seafood (to LDWF Office of the Secretary, Seafood Promotion and Marketing Board).

EDRP I – Job 1: Reseeding, Rehabilitating and Restoring Oyster Reefs

The Private Oyster Lease Rehabilitation (POLR) program was designed and implemented to reimburse private oyster leaseholders for rehabilitating their oyster reefs from hurricane-related damage. Rehabilitation activities available to the leaseholder under the POLR program include:

- 1) removing sediment/debris,
- 2) depositing cultch,
- 3) resurveying/remarking leases,
- 4) relaying oysters,
- 5) bedding (transplanting) of oysters, and
- 6) replacing lost/damaged lease records

The program reimburses participating leaseholders for documented costs associated with rehabilitation activities up to a qualifying amount. Reimbursement payments to participating leaseholders began in August, 2007. Participating leaseholders sign a Cooperative

Endeavor Agreement (CEA) with LDWF that outlines the terms of the POLR program and the amount of reimbursement the leaseholder qualifies to receive. Upon approval of the CEA, leaseholders are authorized to perform specific, documented rehabilitation activities, and be partially reimbursed within certain reasonable and customary limits. Approximately 650 leaseholders expressed interest in participating in the program. Leaseholders began signing CEAs May 25, 2007 at a public meeting in Belle Chasse. Subsequent sign-up meetings were held in Houma (May 31), Baton Rouge (June 8) and Chalmette (June 11). Leaseholders had the opportunity to schedule a signup appointment with POLR staff in Baton Rouge, and the final date for leaseholders to sign CEAs was at a meeting in Baton Rouge on October 18, 2007.

The POLR program was developed with strict audit and accountability measures. Participating leaseholders are required to call a toll-free number, prior to performing rehabilitation activities. Most participating leaseholders have been performing sediment and debris removal, as well as oyster transplanting. Some have chosen to plant cultch, remark lease boundaries and relay oysters. The toll-free call center provides a call-in report to LDWF each morning at 8:00 a.m. and then again at regular intervals throughout the day. LDWF Marine Fisheries field staff performs random field inspections of POLR-related rehabilitation activities on a weekly basis. Field staff encounter vessels working under the program (such vessels are identified by being listed on the toll-free call-in report and by flying a 2' X 2' red flag) and record information concerning the activity being performed, the time and location of the encounter, and the vessel name. This information is used to check against reimbursement requests that are submitted by the participating leaseholder.

The Louisiana Legislative Auditor's Office (LLA) was contracted to develop and conduct an agreed-upon procedures audit of the POLR program in 2008.

A Cooperative Endeavor Agreement with Louisiana Department of Health and Hospitals (LDHH) was executed to provide assistance to reestablish seafood safety sampling and laboratory functions. LDHH has completed work to create a Panchromatic-TM Merge satellite image through Louisiana State University. The image will provide the background for seasonal classification maps showing the areas open for oyster harvest during various times of the year.

Plans are being developed to incorporate a native oyster hatchery at the LDWF Marine Laboratory on Grand Isle, Louisiana. This laboratory is currently under

construction and plans for the development of the hatchery are being developed by the project architect. Input on the hatchery design has been received by researchers from academic institutions within Louisiana, most notably from Louisiana State University (LSU) researchers, who have extensive oyster hatchery experience.

A draft request for proposals (RFP) to develop a data and records management system has been developed and has been reviewed internally. Procurement bid procedures have been initiated. The system will provide for system security, backup and recovery of digital records, an integrated searchable database, metadata generation, and integrate physical and electronic records, organizing them and storing critical information in a digital repository. This will give staff the ability to quickly capture, preserve and share information critical to resource management. LDWF proposes to insure safety and security of the 103 year oyster lease database and the long-term accessibility and usability of the oyster leasing records, by converting paper and cloth lease survey records, maps, plats, and other information to microfilm and creating a digital image record of all the above information; creating an integrated file management system to make the records more readily accessible; and update and improve system data dictionary.

All microfilm records will conform to the standards set forth by the American National Standards Institute (ANSI). The original or "first generation" silver film will be maintained for security purposes and not for reference. At least one duplicate copy of all records filmed will be prepared for reference purposes. For permanent records or for records for which a retention period has not been assigned, a duplication master will be produced from the master negative.

Rehabilitation activities on the public oyster grounds has begun with the necessary planning steps, contractor bid process, and permitting process. During this reporting period, water bottom data supplied by the LORI project was utilized to select possible oyster reef rehabilitation locations on the public oyster grounds. Cultch planting specifications were developed and a bid package was published. The winning bid for reef rehabilitation (cultch planting) will be determined during the next reporting period. The permitting process for the rehabilitation projects was also initiated during this reporting period. All necessary state and federal permits/authorizations are expected to be in hand during the next reporting period. Cultch plantings for reef rehabilitation on the public grounds were performed in May and June of 2007.

Preliminary plans for additional water bottom assessment surveys continue to be developed, although no set plan was decided upon during this reporting period. It is anticipated that future water bottom assessment surveys may concentrate on areas of the public oyster grounds that have never been assessed, but were in the areas impacted by Hurricanes Katrina and Rita. Cultch planting specifications were developed, a bid package published, and a contract for reef rehabilitation (cultch planting) was awarded to Pontchartrain Materials Corporation (PMC). During May and June, rehabilitation activities in two areas of the public oyster grounds east of the Mississippi River were accomplished by PMC with close, daily oversight and guidance by LDWF biologists. A 200 acre location of suitable water bottoms was selected in Black Bay and in Mississippi Sound and approximately 30,000 cubic yards of limestone and crushed concrete (cultch material) was spread thinly on the bottom at each location. These locations were identified and selected based on water bottom data, supplied by a previous federal hurricane disaster project, the Louisiana Oyster Resource Improvement project NOAA Grant No. NA05NMF4540035). A media day was scheduled and held on June 5, 2007 at the Rigolets Marina in Slidell, Louisiana (home marina for the Mississippi Sound cultch plant) to provide information to the media and public concerning the rehabilitation efforts.

Initial qualitative samples were taken on the two new cultch plant locations and data showed the presence of newly settled oyster spat on cultch material. Additional, quantitative monitoring of oyster recruitment on the new cultch plants was completed showing the presence of seed-sized (approximately 1-2 inches) oysters growing on the cultch.

Normal fisheries independent and dependent monitoring of the public oyster grounds was accomplished during this reporting period. Sampling trips were completed by LDWF field biologists, under the regular fisheries independent monitoring program. Data generated by these trips indicated the presence of harvestable size and quantities of oysters on the public oyster grounds. Fisheries independent sampling during this reporting period has also shown the beginnings of a spat set (recruitment period) on the existing reefs of the public oyster grounds. Fisheries dependent monitoring, during this reporting period, has indicated that harvest of oyster resources on the public grounds was also strong. Fisheries dependent sampling estimated that over 228,000 sacks of market-size oysters and over 138,000 barrels of seed-size oysters were harvested from the public oyster grounds, during this reporting period. This represents an increase in the harvest of

market-size oysters and seed-size oysters, as compared to harvest during the same time period in 2006.

EDRPI – Job 2: Rehabilitating Oyster Bed and Shrimp Grounds

LDWF worked with other state and federal agencies and community organizations using data and maps provided by NOAA and others to identify underwater obstructions which are fouling the fishing grounds or access channels for fishing vessels.

The LDWF received approval from the Division of Administration, State Office of Contractual Review for an inter-agency agreement with the Louisiana Department of Natural Resources (LDNR) Office of Conservation for a \$7,339,556 (total contract amount, of which, \$500,000 is obligated in Louisiana Fiscal Year 2006-2007) contract for marine debris removal. All activities under this agreement remain suspended pending notification from the Federal Emergency Management Authority (FEMA) that the U.S. Coast Guard (USCG) has been mission assigned marine debris removal activities in Louisiana coastal waters. Once acknowledgement from FEMA has been received, the LDWF will re-program funds allocated under this activity to other means of rehabilitating shrimp and fishing grounds habitat.

Crowder Gulf Joint Venture, Inc., working under contract with LDWF, has completed marine debris removal activities in 68 four-square mile grids located in portions of Lake Pontchartrain Middle Ground and Lake St. Catherine (Orleans and St. Tammany Parishes), and Calcasieu Lake (Cameron and Calcasieu Parishes). LDWF initially assigned Crowder Gulf ten grids within Lake Borgne, and in response to reports of debris hazards from recreational, commercial and charterboat fishers, LDWF assigned an additional twenty-five grids comprising all public waters within the Middle Ground and Lake St. Catherine and an additional two grids in Lake Borgne. LDWF then assigned an additional thirty-three grids in Calcasieu Lake. Finally, LDWF assigned Crowder Gulf two additional grids in Calcasieu Lake based on sonar data and twenty-eight grids all located within portions of Vermilion and Cote Blanche Bays.

The reports prepared by Crowder Gulf, assigned a target number to each debris item found in the side scan sonar (SSS) surveys which included a corresponding thumbnail SSS image of each debris item found and its coordinates and dimensions, transects of the side scan sonar survey vessel over the survey area or grid, GPS vessel tracks each vessel engaged in debris removal and documents the location and description of each debris

item listed and its disposition (removed, remains in place, nothing found). Due to location or size, certain debris items could not be removed under current contract terms. For instance, some debris items located within pipeline or cable crossings could not be removed due to unacceptable risks. Likewise, several items such as large boats remain in place as well as a number of sonar contacts located in Chef Menteur and Rigoletes Pass, because water depth and current velocity and associated safety risks. Disk copies of the report were provided to NOAA's Office of Coast Survey, LDNR and the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP).

In consultation with the GSMFC, NOAA Fisheries Grant Office in St. Petersburg, the Louisiana State Archaeologist and the Louisiana State Historical Preservation Officer (SHPO), LDWF solicited proposals and awarded a contract to Coastal Environments, Inc. to evaluate the presence of submerged cultural resources within areas targeted for marine debris removal in order to ensure compliance with Section 106 of the National Historic Preservation Act. Coastal Environments was contracted to perform the following tasks:

- Gather and examine records and databases on historic shipwrecks and archaeological sites in these waters and develop a series of maps and database in Arcview 9.2 or compatible format.
- Evaluate side scan sonar survey data collected by the LDWF's marine debris removal contractor and/or NOAA's Office of Coast Survey, within a series of 100 four square mile grids.
- Use the assembled data to develop protocols on the avoidance of impacting historic shipwrecks and archeological sites within all of the grids assigned to the salvage contractor for removal of debris and advise the LDWF and SHPO on specific areas and ship wrecks to be avoided.
- Develop an unanticipated discoveries plan to be implemented by the Contractor, in order to inspect the discovery and provide immediate notification to the State on items of historical or cultural significance encountered during debris removal operations.
- Provide a detailed report identifying the methods used and database used including newspaper archives to identify known or suspected shipwrecks and sites of historical interest.

- Provide a digital database of the side scan sonar survey images of known and suspected shipwrecks, within assigned grids.

LDWF identified potential projects and cooperators in the Lafayette NMFS office. A project proposal is being prepared for consideration. The department received two pre-proposals to investigate the concept of using cultch for wave attenuation and shoreline stabilization.

Work continues to inventory in-house data resources and conduct a needs assessment for developing an RFP to contract for consultation to obtain a new data system that would address the multiple needs of the Division and movement of data from the present to the new system.

EDRP I – Job 3: Cooperative Research to Monitor Recovery of Gulf Fisheries

Historic data from the trip ticket database has been tabulated and analyzed to establish baselines and trends for individual dealers and fishermen of the shrimp industry. A draft report was developed for the brown shrimp fishery, using historic data from the trip ticket database. The report examines 2000 to 2006 data trends, to gauge the impact of the hurricanes and subsequent recovery, of the brown shrimp industry in Louisiana. Comment and suggested changes on the report will be solicited from appropriate LDWF staff and changes will be incorporated. The format from the brown shrimp report will be duplicated for white shrimp, seabob, and other shrimp fisheries. Survey instruments to monitor recovery of Gulf fisheries are being developed. An RFP for contractual services to implement the final draft of surveys has been circulated internally. A draft log-book was modified to a survey format to collect hurricane impacts on the economics and business aspects of the for-hire industry. The draft fisheries recovery survey was further refined and separated into two surveys. One survey will attempt to measure the impact of the hurricanes on the for-hire industry and the other survey will collect base line operating and investment costs. The baseline and trend data will be used to gauge the impact of the hurricanes and subsequent recovery. Work continues on the first draft of a survey targeted at the recreational fishermen, to try to collect their before and after (hurricane) recollections, to collect their views on the condition of the Gulf Fishery, and their opinions for recovery aimed at recreational fishing.

LDWF entered into a contract with the University of New Orleans to conduct fishery-independent monitoring of Gulf fishery stocks. The work will be performed in Lake Pontchartrain; UNO began sampling

under the subcontract in July 2007. Monthly sampling consists of trawls at six stations, gills and seines at five stations, and recreational fishing reports at six stations. Planning continues for the crab fishery dependent portion of this monitoring study.

EDRP II

LDWF developed a formula and qualifying criteria for disbursement of EDRP II funds consistent with the uses allowed by Section 115 of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. Allocation was based on the Louisiana Trip Ticket program, a June 2005 report, developed by Southwick and Associates on economic benefits of Louisiana fishing industries, and LDWF license sales, with final amounts approved by the legislature. Economic assistance payments will be distributed to eligible commercial fishers, commercial fishing vessel license holders, wholesale/retail seafood dealers, and charterboat operators who were active in the fisheries during the qualifying period (September 2004 through August 2005).

Allocation of funds between the recreational and commercial sectors was based on a June 2005 report, developed by Southwick and Associates, on economic benefits accruing to the state from the industries in the impacted parishes. LDWF used license files, trip ticket report files and other data to identify potentially eligible commercial fishers, commercial fishing vessel license holders, wholesale/retail seafood dealers, and charterboat operators who were active in the fisheries during the qualifying period (September 2004 through August 2005). Within the commercial sector the allocation among fisheries were based on pre-storm value of landings.

LDWF solicited input on industry needs through a series of public meetings held with all segments of the commercial and recreational fishing industries between September 24 and October 16, 2007. To identify and receive responses from eligible participants who choose to participate in the LDWF economic assistance payment program, the LDWF negotiated a contract to assist with program administration. The contractor will use print and broadcast media outlets and implement a statewide public information program which advertises the availability of federal fisheries economic assistance to eligible Louisiana resident commercial fishermen, commercial fishing vessel license holders, charterboat operators and wholesale/retail seafood dealers. Contractor will also provide and conduct a minimum of four public outreach meetings designed to explain this economic assistance program within fishing communities, as well as collecting all required

documentation for participation. LDWF also developed a scope of services for a professional services contract with an accounting firm to assist with processing payments and developing Federal 1099 forms to qualified participants.

Planning to develop a program to disburse funds for recreational fisheries projects for public fishing access, enhancement and outreach was conducted.

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

William W. Walker, Executive Director

MARINE FISHERIES MANAGEMENT

Objectives

Marine fisheries projects and activities coordinated through the Office of Marine Fisheries included:

- Design and initiate projects to collect and analyze data required for population dynamics estimates and other fisheries management projects;
- Develop scientifically-based management recommendations;
- Monitor the condition of fish stocks and the fisheries that depend upon them;
- Provide information transfer and liaison activities with regional fisheries management entities and others;
- Provide technical support to the Mississippi Commission of Marine Resources (MCMR) in developing fishery management plans, amendments, stock assessments, and technical analysis;
- Provide a state representative to serve on fisheries related boards, committees, panels, etc. as required; and
- Provide administrative services, general maintenance, locate funding sources, and other fisheries management support services as required.
- 2007 consisted of working closely with Federal and state agencies, local fishermen and seafood dealers on hurricane recovery efforts through the Emergency Disaster Recovery Program, designed to assist in the recovery and monitoring of Mississippi seafood industry.

Status

During 2007, public notice was given to open and close commercial seasons for shrimp, oyster, blue crab, king mackerel, red snapper, red drum, and large coastal sharks. Regional management activities included membership on the GSMFC's TCC Artificial Reef Subcommittee, TCC Blue Crab Subcommittee, TCC Data Management Subcommittee, Oyster and Arenarius Technical Task Forces, Commercial/Recreational Fisheries Advisory Panel, Technical Coordinating Committee, and State/Federal Fisheries Management Committee.

Grant documents and proposals were prepared to secure funding for fisheries management projects under the Sports Fish Restoration Act, the

Cooperative Fishery Statistics Program, the Interjurisdictional Fisheries Act and liaison with Gulf of Mexico Fishery Management Council.

SHELLFISH MANAGEMENT PROGRAM

Objectives

Oysters, as sessile filter feeders, are more susceptible to influences of environmental conditions than mobile species. Accordingly, landings change dramatically from year to year. In addition to rainfall fluctuations, upland pollution can leave abundant supplies of oysters unsuitable for harvest. During the oyster season and throughout the year, field-sampling trips are made to oyster reef stations to collect water samples for fecal coliform analysis. Reef areas are opened and closed based on the level of fecal coliform in the water column, at the time of sampling. Oyster reefs in certain areas close after significant rainfall, or river stage events, until water quality significantly improves. Multiple stations are sampled in each reef area and clean samples must be obtained from each area before the area reopens for harvest. Throughout the year, water quality samples are obtained to properly classify shellfish growing areas.

The Shellfish Sanitation Program is one of the most labor-intensive efforts of the department, requiring almost daily, routine water quality sampling and laboratory analysis for fecal coliform bacteria. The data are used to classify oyster-growing waters in accordance with guidelines from the National Shellfish Sanitation Program (NSSP) and to provide justification to reopen oyster reefs following closures.

For areas classified as "approved," the geometric mean fecal coliform level, most probable number (MPN) cannot exceed 14; no more than 10% of the samples taken can exceed 43 MPN. Additionally, the FDA specifies minimum sampling frequencies at each of nearly 170 sampling stations in the Mississippi Sound. Approved areas are those in which water quality does not degrade at any rainfall level. Areas classified as "conditionally approved" are subject to frequent openings and closures, due to rain or river stage. Along with water quality monitoring, other work performed on the reefs included revitalization efforts such as reef turnover, oyster relaying, and planting cultch material.

Key Responsibilities

- Administer Emergency Disaster Recovery Program;
- Maintain program compliance with the Interstate Shellfish Sanitation Conference NSSP;
- Map Mississippi oyster reefs;
- Survey potential cultivation and cultch planting sites;
- Cultivate oyster reefs;
- Cultch management; and
- Assess reef areas

Status

Hurricane Katrina destroyed over 90 percent of Mississippi's oyster reefs. During 2006 no oysters were harvested on Mississippi's oyster reefs, however, in 2007, the season opened in September. Oyster harvesting waters are divided geographically into eight major areas and open and close according to close monitoring. Potential cultivation and cultch planting sites were surveyed. A scanable oyster trip ticket was fully implemented and oyster check stations were computerized.

Major Accomplishments

- Hurricane Katrina Oyster Relay Project – began November 13, 2006 to January 10, 2007 - 82 Mississippi boats participated, 1,876 total oyster harvester trips with 75,059 sacks relayed. This project was funded by the NOAA Emergency Disaster Recovery Program.
- Four Cultch Plants included 93,730 cubic yards of cultch material rehabilitating 1,000 acres of oyster reef.
- The 2007/2008 oyster season began September 2007.

SHRIMP and CRAB MANAGEMENT

Objectives

The Shrimp and Crab Bureau managed the state's commercial and recreational shrimp and crab fisheries. Cooperation and coordination with adjoining state marine fisheries agencies as well as regional and federal fishery authorities were integral to the success of shrimp and crab management activities. The program included monitoring and research of the shrimp and crab fisheries, coordination of the Mississippi Crab Task Force, issuing scientific collection permits, inspecting and licensing the live bait shrimp fishery, installing and maintaining constant water-quality recorder instruments, coordinating Wallop-Breaux grants with the U.S. Fish and Wildlife Service, and overseeing the Derelict Crab Trap Recycling Program. These fisheries are managed by setting seasons, gear

regulations, and other management measures. Shrimp and crab biologists worked cooperatively with federal agencies including the NMFS, USFWS, GSMFC, GMFMC, and USGS.

Cooperating state agencies and organizations included University of Southern Mississippi's Center for Marine Science; Mississippi Department of Environmental Quality; Mississippi Department of Wildlife, Fisheries, and Parks; Mississippi State University Cooperative Research and Extension Service, as well as neighboring state marine resource management agencies.

Key Responsibilities

- Long-term monitoring of shrimp populations, in order to make management recommendations. Nearly 250 trawl samples were collected as part of the shrimp-monitoring program. Data collection included monitoring surface and bottom hydrological parameters at each station (salinity, temperature, and dissolved oxygen).
- Inspection of live bait shrimp operations and compilation of reports. The Live Bait Program included monthly compilation of Confidential Dealer Reports and licensing and inspecting live bait facilities. A trip ticket program was developed to improve data collection for this fishery.
- The Mississippi Crab Task Force was supported to allow various user groups to provide input and voice concerns.
- Development continued on constant recorder instruments across the coast for real-time hydrological monitoring. Real time data of water temperature, salinity, and stage from nine Mississippi Sound sites were available on the MDMR web site.
- Issuance of Saltwater Scientific Collection Permits. Recipients of Special Permits must first submit an application and once determined worthy of merit and the permit issued, a complete report of collection or harvesting activity must be submitted to the MDMR. Saltwater scientific collection permits were issued in a manner to protect Mississippi's marine resources while allowing legitimate research and development. Twenty-eight Special Permits have been issued over the past year.
- Coordination of Sport Fish Restoration grants continued.
- The Derelict Crab Trap Recycling Program included recording the numbers of traps and area collected as well as documented ghost fishing (capture of animals other than crabs). There

were 11,000 derelict traps collected in 2007, in cooperation with commercial fishermen.

- Hurricane Katrina recovery and monitoring for the shrimp and crab fisheries was conducted in the wake of Hurricane Katrina. Shrimp and crab fisheries benefited from two on-going five year NOAA funded Emergency Disaster Recovery Programs. Cooperative seafood industry and MDMR activities administered under this grant include shrimp and crab recovery reporting and storm related derelict crab trap removal efforts.

ARTIFICIAL REEF MANAGEMENT

Objectives

- To update coordinates and orientation of past artificial reef material deployments within Mississippi's marine waters and adjacent federal waters;
- To provide the MDMR web administrator with acquired coordinates of reef material, reef orientation, and maps and charts so that a portion of the web page can be created for the fishing community to access this information;
- Identify areas conducive for artificial reef development and enhancement both near shore and offshore within the framework of Mississippi's Artificial Reef Plan;
- Monitor artificial reef development in Mississippi's marine waters and adjacent federal waters; and
- Obtain artificial reef material from state, federal, and private entities through donations.

Status

Mississippi has 16 permitted offshore reefs encompassing approximately 16,000 acres of water bottom. These reefs range in size from one acre to 10,000 acres. To date, the material used for offshore reefs consists of concrete rubble, steel hull vessels (including barges), oil/gas platforms and armored personnel carriers. Mississippi permitted 45 near shore artificial reef sites. These reefs were located inshore so fishermen can take advantage of the fish that inhabit these reefs. The materials of the near shore reefs consist of limestone, crushed concrete, concrete rubble (when water depth allows), and oyster shells. Nearshore reefs were deployed at strategic times of the year when optimum oyster spat will settle for future growth of the reef. Two methods used to monitor and update coordinates and orientation of past artificial reef material deployments were sidescan sonar (used primarily offshore) and sounding with a pole (primarily inshore). Thirteen of the 16 artificial reef sites located offshore Mississippi and adjacent federal waters and two of the 46 inshore artificial reefs were

surveyed using sidescan sonar. Thirty-four inshore reefs were verified using pole sounding. All coordinates obtained from sidescan sonar and soundings are listed on the MDMR web site and available to the public. Maps are also available upon request.

FINFISH MANAGEMENT

Staff worked closely with appropriate federal and state agencies, various user groups, and the public. They strived to promote, conserve, and regulate these fisheries based on the best available biological, social, and economic data. Constant recorder instruments were monitored and maintained to allow optimum data availability. Sport Fish Restoration grants were closely monitored to ensure pre-established goals of each project were achieved.

MARINE RECREATIONAL FISHERIES STATISTICS SURVEY (MRFSS)

Objectives

- Conduct the MRFSS Survey in Mississippi for shore, charter, and private modes.
- Provide a timely and reliable database on marine recreational fishing activity.
- Identify notable changes in recreational catch and effort trends.
- Evaluate the long-term implications of management measures.
- Conduct weekly telephone interviews of charter boat operators in Mississippi.

Status

Recreational fisheries information was collected daily in all three modes through the survey. The data were processed, edited, and submitted to the GSMFC. The information provided a continuous standardized database of marine recreational catch, effort, and participation in the U.S. This data provided various fisheries councils the information necessary to make wise management decisions. Pressure estimates were submitted to the GSMFC according to schedule. These estimates, along with historical productivity, were used to estimate the number of assignments needed to achieve a given quota for each month. The MRFSS Program included a telephone survey of the charter boat fishery and weekly telephone interviews were conducted. The number of telephone interviews was based on random selection of 10% of the charter boats in Mississippi. Data were entered and sent to the GSMFC weekly. The information was used to obtain precise effort estimates for the charter and head boat sectors.

MARINE COMMERCIAL FISHERIES STATISTICS

Objectives

- Collect commercial fisheries landings and catch data for Mississippi;
- Collect biological data for selected, commercially important finfish species;
- Obtain boat trip information and biological statistics on migratory pelagic and reef fish such as red snapper, grouper, and amberjack (collect otoliths from red snapper); and
- Expand the trip ticket system.

Status

Fisheries landing data were collected weekly and monthly according to schedule. The data were processed, edited, and submitted to the NMFS in accordance with established data handling procedures. This data is an important part of the fisheries management process, both as an indicator of potential problem areas and as a gauge of the success of existing fisheries regulations and practices.

Information for selected pelagic and reef fish was collected from major landing sites on a monthly basis. The information was submitted to the NMFS for inclusion in its trip information system. Both state and federal fisheries managers utilized these data to properly manage valuable resources.

Biological data were collected for selected, commercially important finfish species from major seafood dealers along the Mississippi Gulf Coast. Some information will be utilized in the development of both state and regional fishery management plans.

SPORTFISH TAG AND RELEASE IN MISSISSIPPI COASTAL WATERS AND THE ADJACENT GULF OF MEXICO

Objectives

- Continue angler-cooperative tag and release of spotted seatrout in Mississippi coastal waters, specifically to obtain data on the seasonal movement patterns of fish of legal size.
- Continue angler-cooperative tag and release in Mississippi coastal waters and the adjacent Gulf of Mexico, in order to obtain additional data on seasonal movement patterns.
- Initiate angler-cooperative tag and release of tripletail in Mississippi coastal waters and the adjacent Gulf of Mexico, in order to obtain data on seasonal movement patterns.
- Coordinate a series of workshops to provide for the exchange of information, regarding the recreational fishery in Mississippi.

Status

Seasonal movement and growth of spotted seatrout were studied utilizing angler tagged and released spotted seatrout in Mississippi coastal waters. Similar trends of limited movement were observed in recaptured fish as in other years. Seasonal movement and growth of cobia were studied; utilizing angler tagged and released cobia in the Gulf of Mexico. Future recaptures will supplement these initial data and allow for the analysis of migration trends.

EMERGENCY DISASTER RECOVERY PROGRAM

Objectives

- To restore and diversify nearshore and offshore ecosystems through the creation of low profile shallow water and offshore deep water artificial reef habitats.
- To monitor the recovery of Mississippi fisheries through a cooperative reporting system with charter boat and commercial finfish fishermen.

Status

Twenty-nine nearshore reefs have been enhanced and/or restored with limestone and crushed concrete, in the three coastal counties of Mississippi. This restoration effort encompasses approximately 290 acres and restores 60 percent of the nearshore artificial reef habitat lost in Hurricane Katrina. Approximately 20 percent of the offshore reef deployments have been restored, with a combination of materials of opportunity and designed artificial reef material.

Monitoring finfish fisheries recovery with charter and commercial sector is ongoing. Harvest, effort and bycatch information is being collected by trip and electronically stored.

SEAFOOD TECHNOLOGY PROGRAM MANAGEMENT

Objectives

- Conduct regulatory inspections of shellfish processing and transporting facilities to determine compliance with state and federal sanitation and health safety regulations;
- Provide technical advice to the Mississippi seafood processing industry to aid in compliance with seafood sanitation and health safety regulations;
- Provide technical advice to the seafood processing industry regarding new technologies and new products that add value, new markets, employment opportunities, and economic enhancement for the seafood industry;

- Provide technical advice to those interested in aquaculture and aid in creating expanded economic and employment opportunities;
- Provide technical expertise in investigating food borne illness reports;
- Undertake research project in line with seafood technical surveys, promotion of Mississippi seafood, seafood safety education, and sanitation training in line with the goals of the Mississippi seafood industry to disseminate information and educate consumers and food handlers in the seafood industry;
- Promote food safety education to the public through participation in public fairs, public meetings, and events;
- Work in concert with public affairs staff to develop and distribute brochures, pamphlets, and fact sheets on proper seafood preparation and handling;
- Work with the MDMR Seafood Marketing Bureau to promote Mississippi seafood products; and
- Provide administrative support to the activities of the office, department, and MCMR.

Status

A total of 4,245 technical assistance actions were provided. Some examples were:

- Technical advice and support inspections for the Mississippi Department of Agriculture and Commerce, regarding regulated aquaculture activities;
- Provided seafood inspectors with pre-oyster harvest packets of educational information for molluscan shellfish dealers and a technical assistance packet to crab and shrimp processors;
- Developed Hazard Analysis Critical Control Point (HACCP) plans and sanitation forms for use in molluscan shellfish, shrimp, and crab processing facilities and seafood retailers;
- Provided the Interstate Shellfish Sanitation Conference brochures on “The Risk of Eating Raw Oysters and *Vibrio Vulnificus*” to the industry and public;
- Collaborate with the other member state agencies on seafood safety with emphasis on raw seafood handling, risks on eating shellfish, and cooking seafood;
- Hosted training courses on Basic HACCP and plant sanitation with the Auburn State University and Mississippi–Alabama Sea Grant Consortium;
- Inspected Mississippi permitted shellfish processing, storage, and distribution facilities to

determine compliance with state and federal sanitation and seafood safety regulations; to provide the public with confidence in Mississippi-inspected seafood products; and to aid in marketing Mississippi seafood products;

- Participated in the research grant entitled “Integrated Oyster Market Research, Product Development and Evaluation, Promotion, and Consumer Education Program for the Gulf of Mexico Oyster Industry”;
- Reproduced brochures, poster, fact sheet, and PowerPoint presentations on individually quickfrozen, heat/cool pasteurization, and high hydrostatic pressure technologies;
- Promoted Mississippi seafood products through development of printed materials like cookbooks to promote seafood consumption, awareness of seafood safety through public outreach and education and participation at any seafood festivals and fairs and events along the coast;
- Published and printed a guide: “How to Start a Seafood Business in South Mississippi”;
- Published and printed a brochure: “How to Start a Seafood Business”; and
- Collaborated with Mississippi State University Coastal Research Extension Service on the economic survey “Economic Assessment of the Impacts of Hurricane Katrina on Mississippi Seafood Processors and Dealers”.

Shellfish Sanitation and Health Safety Regulatory Activities

- Inspected Mississippi permitted shellfish processing, storage, and distribution facilities to determine compliance with state and federal sanitation and seafood safety regulations; to provide the public with confidence in Mississippi-inspected seafood products; and to aid in marketing Mississippi seafood products;
- Participated in the shellfish processing plant regulatory review and evaluation by the FDA;
- Received FDA notification that the Mississippi Shellfish Sanitation Program met NSSP requirements;
- Hosted FDA Plant Sanitation Training Course (FD140); and
- Hosted the Gulf Coast States Director’s Meeting on *Vibrio parahaemolyticus* **Strategies**.

Types and Number of Seafood Facilities Permitted

There were fifty-four seafood/sanitation processing permits issued which included nineteen shrimp, ten crab and twenty-five oyster permits. These 54 permits represent 692 inspected seafood units. Examples of seafood sanitation and health safety

regulatory activities conducted by the Seafood Technology Bureau include: 4,245 seafood facility inspections and associated actions and water sample collections of processing plant source water samples for testing. Conducted inspections and associated actions to determine compliance with the following sanitation and seafood health safety regulations:

- Molluscan shellfish sanitation inspections covered under the NSSP;
- Sanitation inspections on seafood species other than molluscan shellfish to aid the industry in meeting compliance conditions when the FDA conducted official inspections;
- Conducted quarterly inspections of all permitted facilities and conducted follow-up inspections as needed, completed re-certification inspections of certified dealers, and issued permits;
- Work with seafood processors to correct deficiencies to meet FDA seafood compliance criteria;
- Work on management criteria and forms for dealers converting selected critical limits and critical control points from under HACCP management to management under standard operating procedures;
- Prepared consolidated report of inspection results for the FDA according to NSSP requirements;
- Prepared and distributed letters to molluscan shellfish dealers regarding ISSC meeting actions and updated HACCP plans;
- Prepared NSSP HACCP comments for the FDA on critical limits and correction action in the model ordinance;
- Participated at the deliberation of issues and resolutions on shellfish sanitation at the Gulf and South Atlantic States Conference; and
- Participated in the ISSC committee deliberations and conferences about regulatory issues.

TEXAS PARKS AND WILDLIFE DEPARTMENT COASTAL FISHERIES DIVISION *Mike Ray, Division Director*

The Texas Parks and Wildlife Department (TPWD) Coastal Fisheries Division is responsible for making management recommendations regarding fishery resources within Texas bays and estuaries and in state waters of the Gulf of Mexico from the shoreline seaward to nine nautical miles. The estimated value of fisheries within the four million acres of marine habitat exceeds \$2 billion.

Coastal Fisheries Division Objectives

The goal of the division is to develop management plans for selected fisheries using the concept of optimum yield. These plans include recommended harvest regulations, resource stock enhancements, and enhancements based on fisheries independent and dependent monitoring program data utilizing the best scientific information available. Objectives of the division are:

1. to recommend management strategies for aquatic marine resources to the TPWD executive director, the Texas Parks and Wildlife Commission (TPWC), and the Texas Legislature based on sound scientific data;
2. to determine trends in abundance of finfish and shellfish populations affected by environmental conditions and fishing;
3. to determine landings of marine species and associated social and economic characteristics of the fisheries;
4. to restore, manage, and enhance existing fishery populations through stock identification, life history, genetic and reproductive physiology research, establishing appropriate stocking ratios for selected marine organisms in Texas bays, and assessing impacts of stocking on present populations and existing fisheries; and
5. to promote, develop, maintain, monitor, and enhance the artificial reef potential in the marine waters off Texas.

To achieve these objectives, the division is organized into four major components: Administration, Ecosystem Monitoring, Science, and Enhancement. Effective management of finfish and shellfish populations must be based on a thorough knowledge of the population dynamics of the resources. Long-

term trend data based on routine monitoring are necessary to assess trends in abundance. Commercial and recreational landings information is necessary to assess impacts of user groups on the fisheries and to determine economic importance of these fisheries to the state. Activities in FY 2007 (September 1, 2006 through August 31, 2007) included participation in the development, review, and revision of GMFMC and GSMFC fishery management plans. The division participated in workshops and advisory meetings with the Council, Commission, and other management authorities.

Resource and Harvest Monitoring

Monitoring the relative abundance of adult fish in Texas bay waters was accomplished using 600' gill nets with individual 150' sections of three, four, five and six inch stretched mesh. Bag seines (60' / ½" mesh) and trawls (20' / 1½" mesh) are used to determine abundance of juvenile and sub adult finfish, shrimp, blue crabs, and associated organisms. Oyster dredges (19 ½" wide) were used to collect oyster abundance data. Inshore waters (within 9 nm) were also sampled with trawls. Total sampling effort during FY 2007 included 780 gill net sets; 2160 bag seine tows; 2640 bay and gulf trawls; and 1200 oyster dredge tows.

Relative abundance of finfish and shellfish in Texas offshore waters is monitored through long-term monitoring programs and a cooperative agreement with the GSMFC. Texas participated in the SEAMAP, a cooperative program between the Gulf States and federal government for collection, management, and dissemination of fishery-independent data and information in the southeast U.S. Data obtained from this sampling effort was used in evaluating the "Texas Closure" management measure of the GMFMC Shrimp Management Plan and to provide information on shrimp and groundfish stocks in the northern Gulf, from inshore waters to 50 fm. In fulfillment of SEAMAP requirements, the TPWD collected 160 shrimp trawls 2007.

Sport landings (private and guided boat) and associated angler activities were derived from on-site creel interviews of recreational anglers at the completion of their trips. Roving trailer and wet slip counts were used to assess relative pressure at sampling sites. Relative pressure was used to determine how often a site should be selected for a

survey; higher use sites are surveyed more often than low use sites. A total of 1049 survey days were spent to estimate landings and pressure of private and party boat fishermen.

Routine collection, editing, summarization, and publication of self-reported commercial landings data continued through a formal cooperative statistics agreement with the NMFS. Landings were obtained from commercial seafood dealers through submission of Monthly Aquatic Products Reports. The TPWD collected commercial landings statistics on crab, oyster, and finfish, while the NMFS continued to gather landings statistics on shrimp.

Crab Trap Cleanup Program

During the 2007 closure, held February 16-25, 2007 934 volunteers using 78 vessels and expending approximately 1,688 man-hours of effort, plus numerous TPWD staff, removed 2,816 derelict traps coastwide. This effort brings the total number of traps removed since the program began in 2002, to 22,746. Most (75%) of the traps were removed from Galveston Bay (62%) and San Antonio Bay (13%) respectively. Additionally, 30 donors contributed monies, materials, time, site use, promotional services and other assistance to help facilitate the program.

Research

The Perry R. Bass Marine Fisheries Research Station (Palacios) provided information and techniques necessary for improvement of Texas fisheries management strategies.

Efforts to improve management or restoration of marine species were directed toward research in life history and genetics of important recreational and commercial species. In the past year, genetic studies were conducted on sheepshead, alligator gar, southern flounder and billfish. Collection and processing of genetic samples from these species continued; a final report was completed for the sheepshead genetic project. Otoliths were collected from red drum and spotted seatrout to estimate age structure of Texas populations and update age-length keys for these fish.

A project to examine reproductive biology and age and growth of sand seatrout was continued. A cooperative project with the GSMFC continued to collect age and growth data on commercial and recreational catches of Southern flounder, king mackerel, red snapper, and greater amberjack; additional species added to the project included black

drum, red drum, spotted seatrout, grey snapper, vermillion snapper, grey triggerfish and sheepshead.

An Atlantic Billfish Research Program project to investigate age and growth, reproduction and genetics of istiophorid billfish in Gulf of Mexico waters off Texas was completed and a final report on the project was produced.

A cooperative project with Texas A&M University (Dr. John Gold) to evaluate effectiveness of red drum enhancement efforts using DNA microsatellite fingerprinting of captive red drum broodstock and red drum collected in routine monitoring gillnets was continued. A routine fishery monitoring project using bag seines and gill nets continued in the Cedar Lakes area near the mouth of the San Bernard River.

Legislative and Regulatory Changes

Legislative Actions: The 80th Texas Legislature met in 2007, passing three bills that affected coastal issues.

H.B. 12 established the requirement that a person catching fish from the EEZ must acquire a valid fishing license and a saltwater stamp endorsement, prior to unloading fish or other aquatic life in Texas, unless the person is exempt from the fishing license requirement.

S.B. 620 allows an oyster lease permit holder to mark his lease boundaries with markers that are fixed to the bottom and will not move with the weather or tides.

S.B. 791 classified oysters as inherently unsafe for personal consumption, thereby limiting the liability of individuals and businesses that sell oysters to the public when an oyster causes sickness or death.

TPWC Rule-making Actions

Several new rules regarding saltwater fishing were approved by the TPWC.

The Commission established rules governing the placement of donated reef materials in a permitted zone by third-party entities as authorized by the House Bill 883, enacted by the Texas Legislature in 2005.

An offshore aquaculture permit, for Texas outside waters, was created by rule which would allow offshore aquaculture activities; prescribe the permit application procedures; establish conditions required to operate an offshore aquaculture facility; implement the department's responsibilities under Agriculture

Code, Chapter 134; and provide protection for marine resources in the wild, including endangered species. The fee for a permit or permit renewal would be \$1,500.

The bag limit (10 fish to 5 fish) and possession limit (20 fish to 5 fish) for spotted seatrout in the Lower Laguna Madre was changed to address a relatively long, downward trend in spawning biomass and catch rates in this bay system.

The size limit for sheepshead was increased from 12 inches to 15 inches, which will provide better protection for breeding fish.

The bag and possession limits were waived for fish landed from offshore aquaculture facilities. This will provide clarity and prevent conflict between aquaculture operations and recreational angling.

The Commission delegated to the Executive Director its responsibility and authority to make rules as necessary to modify state coastal fisheries regulations in order to provide for consistency with federal regulations in the exclusive economic zone.

Fish Stocking

Efforts continued to spawn and rear marine fish for stock enhancement at the CCA/CPL Marine Development Center (MDC) in Corpus Christi, Perry R. Bass Marine Fisheries Research Station (PRB) in Palacios, and Sea Center Texas (SCT) in Lake Jackson. Controlled photoperiod and temperature protocols were used to induce captive broodfish to spawn at the hatcheries. During peak spawning periods, personnel collected 1.5-2 million eggs per day. After hatching, larval fish were transferred to outdoor rearing ponds and grown to a target size of 35-40 mm TL.

During calendar year 2007 a total of 26.2 million red drum fingerlings, 40 thousand potted seatrout fingerlings and 498 southern flounder, averaging 36.1mm TL were stocked into marine water. Approximately 1,786,883 red drum fingerlings were released into inland freshwater reservoirs. Cutting-edge research included automated routine respirometry and broodfish genotyping to strengthen the scientific basis of the stock enhancement program. Technical information on fish hatchery development was provided to other coastal states in a cooperative effort to enhance coastal marine fisheries.

In addition to stock enhancement, each facility provided public outreach activities. Interpretive displays, touch tanks and aquaria appeal to visitors. Sea Center Texas welcomed over 60,312 visitors in 2007. The Marine Development Center toured 1,372 visitors, and the PRB satellite pond facility received 55 visitors. These facilities, touted as the world's largest red drum hatcheries, represent a unique merger of fisheries science and visitor education.

Habitat Protection

In FY 2007 the Coastal Conservation program was integral in implementing numerous coastal restoration project along the Upper Texas coast.

As part of the settlement for the Natural Resource Damage Claim against the TexTin Superfund site in Texas City, approximately 100 acres of coastal marsh and shallow water habitat were restored and enhanced with Swan Lake on the western edge of Galveston Bay.

Working with other Natural Resource Trustees, TPWD staff was the lead agency overseeing project implementation. TPWD also was integral in the conservation purchase of 60 acres of barrier island coastal prairie on Galveston Island at McAllis point and the conservation of the 38 acre Moore Island adjacent to the Starvation Cove and Delehide Cove marsh restoration projects.

Funding was secured and a contractor selected for the North Deer Island erosion control and marsh restoration project. These projects have led to the conservation and restoration of numerous coastal habitats including intertidal marsh, coastal prairie, colonial bird rookery and seagrass meadow.

Coastal Conservation staff continued to provide recommendations to the Federal Energy Regulatory Commission and to the U.S. Army Corps of Engineers, regarding several Liquid Natural Gas (LNG) importation terminals including the Calhoun LNG and Golden Pass LNG facilities. Staff partnered with TPWD Wildlife staff work with Golden Pass LNG to restore 230 acres of intertidal marsh within the J.D. Murphree Wildlife Management Area, as mitigation for wetland impacts at the terminal site.

Staff also provided comments intended to minimize impacts to fish and wildlife habitat on 150 U.S. Army Corps of Engineers permits.

Staff participated in various Interagency Teams (ICT) for federal projects administered by the U.S. Army Corps of Engineers (USACE). These projects included Texas City Channel Deepening and Widening ICT, Matagorda Ship Channel Improvement ICT, Freeport Channel ICT, Clear Creek Flood Damage Reduction ICT, Sabine-Neches Waterway ICT. Staff also was involved with coordination with Harris County Flood Control District on numerous federal flood control projects including Hall's Bayou, Buffalo Bayou and Hunting Bayou.

Staff participation provided the primary input for the State, regarding the impact to fish and wildlife resources from the projects to the federal government and project proponents.

Coastal Conservation staff was also involved in numerous planning groups, including the Dickinson Bayou watershed planning group and the Gulf Alliance. The focus of the Dickinson Bayou watershed to create a conservation plan for sensitive habitats within the watershed and to develop strategies to address water quality issues within the bayou. TPWD staff hosted the Gulf Alliance Habitat working group meeting in Texas that featured coastal habitat projects and issues in Texas and Mexico.

Artificial Reef Program

The USTS *Texas Clipper* reefing project was awarded to Resolve Marine Services, Inc. (Ft. Lauderdale, FL) in September 2006 for approximately \$4 million. In October 2006, the ship transfer was completed by the U.S. Maritime Administration (MARAD) and a notice to proceed was issued to Resolve Marine Services. In November 2006, the ship made its voyage from the MARAD Reserve Fleet in Beaumont, Texas to the ESCO Marine, Inc. Shipyard in Brownsville, Texas for remediation and hull modifications. By August 2007, all hull modifications were completed and remediation included the removal of 7,000 gal of hydrocarbons; 7,040 lbs of oil sludge; 1,680 cu yd of asbestos; over 76,000 lbs of Polychlorinated biphenyls; 1,410 cu yd of debris; and over 330,000 gal of non-hazardous liquid wastes, such as bilge water. Reefing plans were engineered in anticipation of a sinking date in fall of 2007.

The Artificial Reef Program was responsible for maintaining 58 permitted reef sites, ten USCG required marker buoys (five permanent and five temporary), and 3 mooring buoys in the Outer Continental Shelf area of the Gulf of Mexico in 2007.

The Program received four petroleum structures and the components of two drill rigs, damaged by Hurricanes Katrina and Rita in 2005. A majority of the structures were deployed in the High Island area. HI-A-571 and MU-A-85 were partially removed by mechanical cutting and reefed in place. HI-A-316 and WC-524 were removed by explosives and towed to the HI-A-317 reef and HI-A-310 reef, respectively. The three rig legs, rig floor and substructure of the Rowan *LOUISIANA* were towed to the HI-A-271 reef. The leg and hull section of the Rowan *HALIFAX* was also deployed at the HI-A-271 reef.

The Texas Artificial Reef Fund received \$1,663,280 in donations. The nearshore reef offshore Port Isabel, in PS-1169, was further enhanced with 7 reef ball structures and a 65 foot shrimp boat. The Port Isabel reef site now contains 53 reef ball structures, 2 petroleum structures, a tug boat, a shrimp boat, and a U.S. Navy YR barge. Basco's reef, in HI-117, was further enhanced by the deployment of 63 quarry rocks (7-15 tons each) for a total of 268 deployed.

NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST REGION
NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
Roy E. Crabtree, Regional Administrator

The mission of NOAA Fisheries is stewardship of the nation's living marine resources. Through conservation and wise use, these resources and their habitats can be managed effectively and efficiently to maximize the benefit to the nation without jeopardizing future options.

NOAA Fisheries administered programs to promote the conservation, management, and development of living marine resources for commercial and recreational use. Included are services and products to support the administration of fisheries management options; international fisheries affairs; fishery development and industry assistance; protected species and habitat conservation; law enforcement activities for marine mammals, endangered species, and regulated fisheries; and scientific and technical aspects of marine fisheries research.

The NOAA Fisheries Southeast Regional Office (SERO) is located in St. Petersburg, Florida. The regional administrator represents the agency's assistant administrator with state conservation agencies, recreational interests, commercial industries, consumers, environmentalists, and the general public. Through a range of programs, the SERO planned, organized, and implemented fishery management and conservation including regulatory requirements, fishery management plans, and recreational and international fisheries. It provided administrative and technical support to regional fishery management councils including program planning and evaluation, budgeting, and administrative support. Support services were provided to other NOAA and NOAA Fisheries elements collocated with the SERO.

The NOAA Fisheries Southeast Fisheries Science Center (SEFSC) is located in Miami and has laboratories in Miami, Panama City, Beaufort, Pascagoula, Stennis Space Center, and Galveston. The SEFSC conducted multi-disciplinary research programs to provide management information to support national and regional programs and to respond to the needs of regional fishery management councils and other user groups. The SEFSC developed the scientific basis required for status of stocks and status of fisheries reports; environmental assessment and environmental impact statements for

management plans and/or international negotiations; and pursued research to answer specific needs in habitat conservation, aquaculture, fishery engineering, marine mammals, endangered species, fishery oceanography, food sciences, and fishery economics.

FISHERY RESOURCE CONSERVATION AND MANAGEMENT

Gulf Shrimp Fishery

Annual Texas Closure

The annual closure of the shrimp fishery in the western Gulf of Mexico was established to allow brown shrimp to reach a larger (and more valuable) size before harvest, preventing discard and waste of brown shrimp smaller than the preferred market size. For 2007, commercial shrimp fishing in federal waters off Texas was closed May 15 through July 15.

Amendment 13 – Shrimp Permit Moratorium

In August 2006, NOAA Fisheries Service published a final rule implementing actions in Amendment 13 to the Fishery Management Plan (FMP) for the Shrimp Fishery of the Gulf of Mexico. This rule, in part, established a moratorium on the issuance of federal commercial shrimp vessel permits. The rule also revised existing regulations regarding reporting and recordkeeping in the shrimp fishery and established stock status criteria for the various shrimp stocks.

Between October 26, 2006, and October 26, 2007, qualified shrimp vessel owners could apply for a commercial shrimp vessel moratorium permit. These moratorium permits were required to fish for or possess shrimp in federal waters of the Gulf of Mexico beginning March 26, 2007. Permits under the moratorium are fully transferable, allowing permittees the flexibility to enter or exit the fishery as they choose. A total of 1,933 moratorium permits were issued to qualified applicants.

In addition, the final rule established a standardized method to regularly monitor and report the catch, effort, and gear used in the shrimp fishery of the Gulf of Mexico. These reporting programs were implemented in 2007. A sample of federally-permitted shrimp vessels were equipped with electronic logbooks provided by NOAA Fisheries Service, and a sample of federally-permitted shrimp

vessels were selected to carry observers. Additional reporting requirements included mandatory reporting of landings, and completion of a form describing vessel and gear characteristics.

Interim Rule for the Red Snapper and Shrimp Fisheries

NOAA Fisheries Service published a final rule on April 2, 2007, implementing interim measures in the Gulf of Mexico red snapper and shrimp fisheries. The interim measures were intended to temporarily address overfishing of red snapper in 2007 while the Gulf of Mexico Fishery Management Council (Gulf Council) developed additional, long-term measures to end overfishing and rebuild the red snapper stock through Amendment 27/14 (see below). For the shrimp fishery, under the interim measures, shrimp effort and the associated bycatch discard mortality of juvenile red snapper would be controlled through time-area closures, as necessary, to reduce red snapper mortality 50 percent from the 2001-2003 time periods.

Amendment 27/14 – Red Snapper and Shrimp Fisheries (Shrimp Actions)

Joint Amendment 27 to the FMP for Reef Fish Resources of the Gulf of Mexico and Amendment 14 to the FMP for the Shrimp Fishery of the Gulf of Mexico (Amendment 27/14) was approved by the Gulf Council and submitted to NOAA Fisheries Service for Secretarial review in June 2007. In October 2007, NOAA Fisheries Service published a proposed rule for this action. The intent of the rule was to reduce the red snapper catch, bycatch, and discard mortality in the directed commercial and recreational fisheries, as well as in the shrimp fishery. The regulations were designed to ensure a reasonable probability of ending red snapper overfishing by 2010 and rebuild the stock by 2032. For the shrimp fishery, shrimp effort and the associated bycatch discard mortality of juvenile red snapper, would be controlled through time-area closures, as necessary, to reduce red snapper mortality 74 percent from the 2001-2003 time period. The size and duration of this time-area closure would be modified in the future as red snapper rebuild. This rule will become effective in 2008.

Shrimp Regulatory Amendment – (Bycatch Reduction Device [BRD] Certification Criterion and New BRDs)

In October 2007, NOAA Fisheries Service proposed new rulemaking that would standardize the bycatch reduction certification criterion throughout the Gulf of Mexico and South Atlantic regions. To be certified for use in the shrimp fishery a BRD would

have to demonstrate it reduced the weight of finfish in a trawl by 30 percent. In addition, NOAA Fisheries Service proposed a “two-year provisional certification” category for BRDs, if a BRD demonstrated a 25 percent reduction of the finfish by weight in a trawl. Based on this change, NOAA Fisheries Service proposed to certify the Modified Jones-Davis BRD, and to provisionally certify the Composite Panel and Extended Funnel BRDs. This rule will become effective in early 2008.

Gulf Reef Fish Fisheries

Grouper Regulatory Amendment

The Gulf Council approved a regulatory amendment to the Reef Fish FMP in November 2005. After reviewing the results of the gag stock assessment, which indicated gag was undergoing overfishing, NOAA Fisheries Service published a final rule implementing a February 15 to March 15 recreational closure, beginning in 2007, to constrain recreational harvest to the annual target catch level.

Fish Traps

On February 7, 2007, fish traps were prohibited in Gulf of Mexico federal waters. This prohibition was the result of the Gulf Council’s Amendment 14 to the Reef Fish FMP, implemented in 1997, which established a 10-year phase-out of fish traps. The prohibition of fish traps was established to address the impacts of incidental catch of non-target species, increasing unreported fishing effort, lack of compliance with fish trap regulations, and long-term ghost fishing from abandoned or lost traps. To reduce the economic impacts of the fish trap prohibition, the Gulf Council recommended phasing out the use of fish traps in federal waters over a 10-year period.

Interim Rule for Red Snapper and Shrimp Fisheries

NOAA Fisheries Service published a final rule on April 2, 2007, implementing interim measures in the Gulf of Mexico red snapper and shrimp fisheries. The interim measures were intended to temporarily address overfishing of red snapper in 2007 while the Gulf Council finalized Amendment 27/14. Interim measures for the directed red snapper fishery were implemented to:

- 1) Reduce the commercial red snapper minimum size limit from 15 inches to 13 inches total length (TL);
- 2) reduce the total allowable catch (TAC) for the directed red snapper fishery from 9.12 million pounds (mp) to 6.5 mp, resulting in a

commercial red snapper quota of 3.315 mp and a recreational red snapper quota of 3.185 mp;

- 3) reduce the recreational red snapper daily bag limit from four fish to two fish per person; and
- 4) prohibit the captain and crew of for-hire vessels from retaining the recreational bag limit. The reduction in the commercial minimum size limit was implemented on April 2, 2007, and the remaining measures were implemented on May 2, 2007. These interim measures were extended on September 24, 2007.

Amendment 26 – Red Snapper Individual Fishing Quota (IFQ) Program

The Gulf Council developed Amendment 26 to establish a Red Snapper IFQ Program after a referendum was conducted in November 2004. On November 22, 2006, NOAA Fisheries Service published a final rule which implemented the Red Snapper IFQ Program on January 1, 2007. NOAA Fisheries Service initially established a commercial quota of 2.55 mp, and adjusted the quota to 3.315 mp in the interim rule noted above. All appeals for initial allocations under the IFQ were resolved by June 2007. Final allocations, based on the 3.315 mp quota, were issued to 641 shareholder accounts held by 541 individuals. In response to requests by the IFQ participants, NOAA Fisheries Service proposed rulemaking to revise and clarify participant reporting requirements; these actions were included in the Vessel Monitoring System (VMS) and Vermilion snapper rules discussed below. As part of the extension of the interim rule listed above, red snapper regulations were also amended to allow for the distribution and issuance of 2008 IFQ allocations for the commercial fishery based on a more restrictive 2.55 mp commercial quota.

Amendment 18A – Vessel Monitoring Systems (VMS); Turtle Release Gear

Amendment 18A was developed by the Gulf Council to resolve several issues related to monitoring and enforcement of existing regulations, to update the framework procedure for setting TAC to reflect current terminology and stock assessment procedures, and to reduce bycatch mortality of incidentally caught endangered sea turtles and smalltooth sawfish. The Gulf Council approved the amendment in October 2005 and NOAA Fisheries Service implemented resulting regulations, with the exception of VMS requirements which were to become effective in late 2006. This regulation requires a NOAA Fisheries Service-approved VMS on board vessels with federal commercial permits for

Gulf reef fish, including charter vessels/headboats with such commercial permits. NOAA Fisheries Service delayed the effective date to May 6, 2007, to allow time to resolve an unanticipated technological problem with one of the approved VMS units and to allow vendors additional time to meet the demand for purchase and installation of VMS units that were backlogged. Subsequently, NOAA Fisheries Service modified the procedures making it easier to request a power-down exemption when vessels are in port and allows IFQ participants to submit their three-hour landings notification through their VMS (see VMS rule below).

Gulf of Mexico Reef Fish VMS Rule

To alleviate a battery drain problem with certain VMS units, NOAA Fisheries Service developed rulemaking to provide an in-port power-down exemption and reduced reporting rates when in port. This rule also established additional methods to report the landing notifications for the red snapper IFQ program. Thus, in addition to reporting via telephone, IFQ participants may now report a landing notification through their VMS units or by completing an electronic form from the IFQ website. A proposed rule was published on August 6, 2007, with the comment period ending August 21, 2007. A final rule published on December 27, 2007, and will become effective January 28, 2008.

Amendment 27/14 – Red Snapper and Shrimp fisheries (Red Snapper Actions)

Amendment 27/14 was approved by the Gulf Council and submitted to NOAA Fisheries Service for Secretarial review in June 2007. In October 2007, NOAA Fisheries Service published a proposed rule for this action. The intent of the rule was to reduce the red snapper catch, bycatch, and discard mortality in the directed commercial and recreational fisheries, as well as in the shrimp fishery. The regulations were designed to ensure a reasonable probability of ending red snapper overfishing by 2010 and rebuild the stock by 2032. For the directed red snapper fishery, the proposed rule included: 1) A 2.55 mp commercial quota; 2) a 2.45 mp recreational quota; 3) a reduction in the commercial directed fishery minimum size limit from 15 to 13 inches TL; 4) required use of venting tools, dehooking devices, and non-stainless steel circle hooks (when using natural baits) for all reef fish fishery sectors; 5) reduction of the recreational bag limit from four fish to two fish; 7) a June 1-September 30 recreational fishing season, and 8) a zero red snapper bag limit for captains and crews of for-hire vessels. Directed fishery management measures were estimated to reduce harvest by 45 percent. These regulations will become

effective on February 28, 2008, except the requirement for venting tools, dehooking devices, and circle hooks, which will become effective June 1, 2008.

Vermilion Snapper Regulatory Amendment

NOAA Fisheries Service implemented regulations to increase harvest of vermilion snapper. The intended effect of these regulatory changes is to assist the vermilion snapper fishery in achieving the optimum yield. A recent assessment indicates vermilion snapper is no longer overfished or undergoing overfishing, and current harvest levels are below the optimal level. Management measures implemented were:

- 1) Reduction of the commercial and recreational vermilion snapper minimum size limit from 11 inches to 10 inches TL;
- 2) elimination of the 10-fish recreational bag limit restriction for vermilion snapper within the existing 20-fish aggregate reef fish bag limit; and
- 3) elimination of the April 22-May 31 commercial closure for vermilion snapper. In addition, this rule provided clarification of several landings requirements in the red snapper IFQ program.

NOAA Fisheries Service published a proposed rule with a comment period ending May 14, 2007, and a final rule implementing these actions will be published on January 3, 2008 and effective February 4, 2008.

Amendment 30A to the Reef Fish Fishery Management Plan (Greater Amberjack and Gray Triggerfish)

NOAA Fisheries Service made a draft supplemental environmental impact statement (DSEIS) for Amendment 30A available for public comment in December 2007. The DSEIS analyzed the impacts of proposed management actions addressing overfishing of greater amberjack and gray triggerfish. The Gulf of Mexico greater amberjack and gray triggerfish stocks are overfished and undergoing overfishing. Although the greater amberjack stock has been under a rebuilding plan since 2003, it is not recovering as projected. Action is necessary to end overfishing, and adjust total allowable catch and harvest controls to bring the rebuilding plan back on course for recovery by 2012. Action is necessary for gray triggerfish to set TAC and harvest controls to end overfishing, to set management targets and thresholds, and to set a rebuilding plan. The DSEIS evaluated the effectiveness of alternative regulatory

measures in Amendment 30A. For greater amberjack, actions include:

- 1) Modifying the rebuilding plan;
- 2) developing accountability measures for the rebuilding plan; and
- 3) changing the recreational and commercial harvest controls (i.e., size limits, bag limits, trip limits, or seasons).

For gray triggerfish, actions include:

- 1) Establishing minimum stock size and fishing mortality thresholds and setting optimum yield;
- 2) developing a rebuilding plan;
- 3) developing accountability measures for the rebuilding plan;
- 4) managing the fishery on a regional basis; and
- 5) changing the recreational and commercial harvest controls. Amendment 30A and its associated rulemaking are currently undergoing review by NOAA Fisheries Service.

Quota Monitoring

The deep-water grouper (yellowedge, speckled hind, snowy, warsaw, and misty) commercial fishery was closed on June 2, 2007. The tilefish commercial fishery was closed on April 18, 2007.

Neither the shallow-water grouper (red grouper, gag, black grouper, red hind, rock hind, yellowfin, yellowmouth, and scamp) commercial fishery, or the red grouper commercial fishery, reached its quota during 2007.

Coastal Migratory Pelagics Fisheries: King and Spanish Mackerel

Quota Monitoring

- In 2007, the commercial fishery for king mackerel in the western zone of the Gulf of Mexico closed on November 3.
- The commercial gill net fishery for king mackerel in the southern Florida West Coast subzone closed on January 25, 2007.
- The commercial hook-and-line fishery for king mackerel in the Florida East Coast subzone closed on February 21, 2007.
- The commercial hook-and-line fishery for king mackerel in the southern Florida West Coast

subzone had the trip limit reduced to 500 lbs per day on March 3, and closed on April 10, 2007.

- The commercial hook-and-line fishery for king mackerel in the northern Florida West Coast subzone had the trip limit reduced to 500 lbs per day on December 27, but did not meet its quota in 2007.
- The commercial hook-and-line fishery for Spanish mackerel in the Gulf of Mexico did not meet its quota in 2007.

PROTECTED RESOURCES DIVISION

Biological Opinions

- Completed a biological opinion regarding the proposed 4(d) Regulations for Threatened Elkhorn and Staghorn Corals.
- Completed a biological opinion regarding NOAA Community Based Restoration Project - Scaling up Staghorn Coral Restoration across the Florida Reef Track using Resilience Principles.
- Completed a biological opinion for the Florida Keys National Marine Sanctuary Permit to Dr. Erin Lipp to Conduct Research Activities on Elkhorn corals.
- Completed a biological opinion on the continued authorization of fishing under the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Atlantic and Gulf of Mexico.
- Completed a biological opinion for the Jacksonville District COE regarding the proposed maintenance dredging and equilibration of a man-made canal at the Jupiter Harbor Marina along the Loxahatchee River, Intracoastal Waterway, Jupiter, Palm Beach County, Florida, and impacts on Johnson's seagrass.
- Completed a biological opinion for the Jacksonville District COE regarding the proposed new dredging of the Sebastian Inlet Channel, Indian River Lagoon, Indian River and Brevard Counties, Florida, and its impact on Johnson's seagrass.
- Completed a biological opinion for the Jacksonville District COE regarding proposed redevelopment and renovation of the Rybovich Marina including restoration of Little Munyon Island and its surrounding submerged habitat, Intracoastal Waterway, Lake Worth Lagoon, Palm Beach County, Florida.
- Completed a biological opinion for the Galveston District COE regarding Freeport Harbor Ship Channel Widening, and its impact on loggerhead, hawksbill, leatherback, Kemp's Ridley, and green sea turtles.
- Completed a biological opinion for the Galveston District COE regarding Sabine-Neches Waterway Widening and Deepening, and impacts on loggerhead, Kemp's Ridley, hawksbill, leatherback, and green sea turtles.
- Completed a biological opinion for the Galveston District COE regarding widening and deepening the Matagorda Ship Channel involving a combination of mechanical, pipeline, and hopper dredges, and its impact on loggerhead, Kemp's Ridley, hawksbill, leatherback, and green sea turtles.
- Completed a biological opinion for the Mobile District COE regarding Deer Island Restoration Project - Restoration of the Western Breach and the Southern Shoreline, including Grand Bayou Marsh, and its impact on Gulf sturgeon critical habitat.
- Completed a biological opinion for the Mobile District COE regarding Panama City Beach Renourishment Project, between St. Andrew Inlet westward to Phillips in the U.S. Gulf of Mexico, Florida, and its impact to Gulf sturgeon critical habitat.
- Completed a biological opinion for the Mobile District COE regarding the proposed Pascagoula River Harbor Dredged Material Management in Mississippi Sound, and its impact on Gulf sturgeon critical habitat.
- Completed a biological opinion for the Mobile District COE, USCG, and FEMA regarding the Mississippi Coastal Debris Removal, and its impact on Kemp's Ridley, loggerhead, green, and leatherback sea turtles.
- Completed revision number 2 concerning the 2003 Gulf of Mexico Hopper Dredging Regional Biological Opinion.
- Completed a biological opinion for the Federal Energy Regulatory Commission regarding the effects of the Gulf LNG Clean Energy Project near Bayou Casotte, Jackson County, Mississippi, and its impact on endangered and threatened sea turtles, marine mammals, fish, and critical habitat.
- Completed a biological opinion for Minerals Management Service regarding effects of the Five-Year Outer Continental Shelf Oil and Gas Leasing Program (2007-2012) in the Central and Western Planning Areas of the Gulf of Mexico.
- Completed a biological opinion for U.S. Fish and Wildlife Service regarding the funding of the Texas Parks and Wildlife Department's Fishery-Independent Sampling Program through the Sport Fish Restoration and State Wildlife Grant

Programs, and its impact on Kemp's Ridley, loggerhead, hawksbill, and green sea turtles.

- Completed a biological opinion for U.S. Fish and Wildlife Service regarding the Pamlico Sound Independent Gill Net Survey, and its impact on Kemp's Ridley, loggerhead, and green sea turtles.
- The 5-Year Status Review for Johnson's Seagrass was finalized.
- Initiated the 5-Year Status Review for Shortnose Sturgeon.
- Issued several authorizations to fish with a modified Georgia Jumper Turtle Excluder Device to test a method of improving shrimp retention efficiency in waters off northeast Florida, Georgia and South Carolina.
- Renewed the Florida Fish and Wildlife Conservation Commission's Endangered Species Act Section 6 Cooperative Agreement.
- Renewed the South Carolina Department of Natural Resources' Endangered Species Act Section 6 Cooperative Agreement.
- Renewed the North Carolina Department of Natural Resources' Endangered Species Act Section 6 Cooperative Agreement.
- Registered approximately 16,601 fishermen under the Marine Mammal Authorization Program.
- Issued several Stranding Agreements authorizing participation in the National Marine Fisheries Service Marine Mammal Health and Stranding Response Program, Southeast Region Stranding Network.
- Launched the Dolphin SMART program in Key West, FL, with sponsoring partners, and initiated implementation with the first training program and recognized three commercial tour operators as Dolphin SMART participants.
- Participated in several partnership meetings with the Florida Fish and Wildlife Conservation Commission on enhancing outreach for wild dolphin conservation efforts on the West coast of Florida, with emphasis on reducing illegal feeding and harassment of bottlenose dolphins in popular tourism areas (e.g., Panama City).
- Created and facilitated the first Florida Consortium workshop with diverse partners and stakeholders to help minimize the impacts to wild dolphins from close human interactions by developing and maintaining consistent outreach messages throughout the state of Florida.
- Mailed educational packets to all commercial tour operators in Corpus Christi and South Padre Island, TX to remind them of the MMPA's implementing regulations preventing feeding and

harassment of wild dolphins, as well as providing responsible viewing and advertising information and associated outreach materials.

- Conducted outreach visits to commercial operators in Nokomis, FL to remind them that feeding a local dolphin, Beggar, is illegal under the MMPA's implementing regulations.
- Maintained NOAA billboards in Panama City and Sarasota, FL reminding the public it is harmful and illegal to feed wild dolphins.
- Conducted workshops in Louisiana and Mississippi to identify ways to build capacity throughout the Gulf of Mexico to better manage protected/endangered species of marine mammals and enhance marine mammal stranding response.

HABITAT PROTECTION

The Habitat Conservation Division (HCD) used authorities from federal law and Executive Orders to conserve, protect and restore habitats that support managed fish stocks, protected resources, and healthy ecosystem functions in the southeastern U. S. To accomplish these objectives, HCD applies its authorities to manage and influence the outcome of activities that may adversely affect essential fish habitat (EFH) and other fishery resources and, ultimately, the production of important commercial and recreational fisheries. Activities focused on project and permit reviews and EFH consultations involving federal programs, pre- and post-application planning, federal projects affecting habitat, National Environmental Policy Act (NEPA) consultations, ecosystem planning, partnerships and coordination with others (e.g., fishery management councils and marine fisheries commissions), coordination between science and management, and outreach. The HCD continued its intensive involvement in activities promoting conservation, restoration, enhancement, creation, and preservation of coastal wetlands, riverine habitats, and nearshore areas utilized by important commercial and recreational fishery species. Increasingly, HCD is becoming involved in regional partnerships to leverage resources and capabilities to conserve habitat and promote stewardship. These partnerships include the Southeast Aquatic Resources Partnership (SARP), the Gulf of Mexico Alliance, the Northern Gulf Institute, and the NOAA Gulf of Mexico Regional Collaboration Team

The HCD accomplished its missions through personnel stationed in the SERO and seven field offices in key locations throughout the region where interaction with federal, state, and local officials; private sector; and interested citizens occurred

frequently. Consultation services were provided through field inspections, meetings, public hearings, and document review. Recommendations were provided to sequentially avoid, minimize, and offset adverse impacts to EFH and other fishery habitats. During 2007, the HCD:

- Reviewed over 3200 individual proposals to construct in coastal waters or wetlands.
- Provided pre-consultative technical assistance to over 150 projects.
- Recommended measures to protect living marine resources on over 275 proposals, which included detailed conservation recommendations on 150 EFH consultations initiated by federal action agencies.
- Completed reviews over 50 National Environmental Policy Act actions.
- Participated in activities associated with mitigation planning and habitat restoration unrelated to other habitat programs and activities detailed here. The majority of this work was related to federal regulatory programs. Considerable effort was devoted to fulfilling requirements related to processing applications, permits and licenses for liquefied natural gas (LNG) facilities in the southeastern U. S. In 2007, HCD provided technical assistance and review and offered EFH conservation recommendations on a number of both open loop and closed loop LNG projects in various stages of the permitting and licensing process. We also served on technical advisory committees established to develop and implement plans to monitor and mitigate for unavoidable adverse impacts caused by multiple LNG facilities in offshore and onshore locations.
- Engaged in activities related to the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA, also known as the Breaux Act). During FY07:

- NOAA Fisheries received approximately \$5.7 million in engineering and design funds to initiate evaluation of the Madison Bay Marsh Creation and Terracing and the West Belle Pass Headland Restoration projects. The Madison Bay project entails the creation of more than 400 acres of new marsh, the nourishment of approximately 260 acres of existing marsh, and the construction of more than 24,000 linear feet of wetland terraces in Terrebonne Parish,

Louisiana. The West Belle Pass project entails the restoration of more than 250 acres of marsh and upland barrier island features along an eroding barrier shoreline near Port Fourchon in Lafourche Parish, Louisiana.

- NMFS completed construction of the Little Lake marsh creation and shoreline protection project in Jefferson Parish and the Chalant Headland barrier island restoration project in Plaquemines parish. The Little Lake project entailed the creation and nourishment of more than 1,000 acres of marsh while the Chalant project restored more than 500 acres of barrier island and stabilized more than 2.5 miles of shoreline.
- Engineering and design activities were ongoing for the following three barrier island restoration projects in the Barataria basin (Pelican Island - \$33 million and 325 acres; Bay Joe Wise - \$27 million and 300 acres; Scofield Island - \$32 million and 275 acres).
- Post-Katrina site assessments and project re-design were also completed for the Pass Chalant to Grand Bayou Pass and additional project funds were received to offset hurricane-related cost increases.
- NOAA Fisheries completed planning activities and received \$1.7 M for engineering and design of the Bayou Dupont Marsh and Ridge restoration project which, if funded for construction, will restore and create about 300 acres of intermediate marsh.
- Engineering and implementation funds were also received for a project to evaluate targeted application of oyster reefs to reduce shoreline erosion. Planning activities also were initiated for three projects which would benefit over 780 acres of coastal wetlands.
- NOAA Fisheries also continued assisting the Corps of Engineers with hurricane recovery and protection efforts by providing expedited reviews of proposed levee and flood control activities and engaging in long-term restoration planning.
- Under the auspices of the emerging Cooperative Habitat Protection Program partnered with the Galveston Bay Foundation and the National Fish and Wildlife Foundation to implement small landowner living shoreline projects in Galveston Bay.

- Analyzed fishery management plans to improve and revise outreach products and SERO's EFH consultation guidance documents for the Gulf of Mexico.
- Participated on SERO Interdisciplinary Planning Teams providing habitat information and EFH reviews during the development of fishery management plans, amendments, and other regulatory actions.
- Provided technical support and local expertise to the NOAA Scientific Support Coordinator and the Regional Response Teams during several hazardous material incidents and exercises.
- Through formal agreement with the Florida Department of Transportation, staff was assigned to work closely with that agency throughout the bridge and highway project planning process. This directed assignment of staff ensured that project delays were minimized and ensured early consideration of measures to conserve NOAA Fisheries-trust resources.
- Participated in ecosystem planning activities through active membership in the Southeast Aquatic Resources Partnership (SARP). SARP is a collaboration of 14 states, the U.S. Fish and Wildlife Service, NOAA Fisheries, the Gulf States and Atlantic States Marine Fisheries Commissions, the Gulf and South Atlantic Fishery Management Councils, non-governmental organizations such as The Nature Conservancy, and business and recreational groups. The SARP was organized with the goal to protect, conserve, and restore aquatic resources including habitats throughout the Southeast, for the continuing benefit, use, and enjoyment of the American people. In 2007, SARP completed the initial draft of the Aquatic Habitat Plan, which will be applied by the SARP partners to implement the National Fish Habitat Initiative in the southeastern U.S. The Aquatic Habitat Plan will help identify and prioritize habitat conservation and restoration opportunities and will focus stewardship efforts on aquatic habitats by applying an ecosystem-based, watershed approach to conservation.
- Participated in ecosystem planning activities through active membership in other partnerships including the Mississippi Coastal Improvements Program, Louisiana Coastal Protection and Restoration Program, Louisiana Coastal Area Feasibility Study, Florida's Subcommittee on Managed Marshes, National Estuary Programs in Texas, Louisiana, Mississippi, and Florida, and a variety of similar planning activities.
- Participated in the Gulf of Mexico Alliance by representing the NOAA Fisheries Service, Southeast Region on the Alliance Federal Work Group and on the Habitat Conservation and Restoration Team. The Gulf of Mexico Alliance was formed in 2004 to establish a state-led, region-wide, cross-boundary collaborative approach among the Gulf coastal states of Texas, Louisiana, Mississippi, Alabama and Florida to enhance joint efforts to ensure the long-term health of the Gulf ecosystem, economic prosperity, and resiliency of coastal communities.
- Aggressively engaged in outreach, disseminating habitat conservation information by:
 - ♦ Conducting poster sessions and making formal and informal presentations at scientific and management meetings;
 - ♦ Addressing students of all ages in classrooms throughout the region;
 - ♦ Delivering lectures at constituent meetings and maintaining continuous contact with concerned individuals and organizations;
 - ♦ Producing many reports and brochures for intra- and interagency coordination; and
 - ♦ Responding to requests for information from private citizens, news media, and local, state, and federal agencies.

COOPERATIVE AGREEMENT AND GRANT PROGRAMS

In 2007, 82 grants and cooperative agreements totaling \$103,694,580 were awarded to states, universities, non-profit/profit institutions, and individuals. Three fishery management councils in the Southeast U.S. received a total of \$5,906,778 in 2007 to conduct fisheries management activities in accordance with the Magnuson-Stevens Fishery Conservation and Management Act:

- The Southeast Area Monitoring and Assessment Program (SEAMAP) - \$1,140,160
- Supplemental SEAMAP funds for the Gulf of Mexico component - \$1,888,325
- The State-Federal Cooperative Fisheries Statistics Program - \$1,062,419
- The Anadromous Fisheries Program - \$105,786
- The Interjurisdictional Fisheries Program - \$988,160
- Atlantic Coastal Fisheries Cooperative Management Act Program - \$987,595
- Atlantic Coastal Cooperative Statistics Program - \$309,675

- The Marine Fisheries Initiative (MARFIN) Program - Six new awards totaling \$629,051 and twelve previous multi-year awards were funded totaling \$1,008,751.
- The Saltonstall-Kennedy (S-K) Grant Program - The competitive program was not conducted in 2007 due to an insufficient funding allocation.
- The Cooperative Research Program - \$1,494,277
- Unallied Science Program - \$2,159,355
- Unallied Management Projects (Disaster Funds) - \$84,915,000
- Cooperative Science and Education Project - \$813,248
- The Gulf States Marine Fisheries Commission received \$5,105,091 to coordinate activities of the Fisheries Information Network and \$1,950,000 to support a cooperative economic data program. They were also awarded \$5,000 in support of a Billfish Symposium.
- Virginia Polytechnic Institute and State University was awarded \$286,000 for their Recruiting, Training, and Research Program.
- South Carolina Department of Natural Resources was awarded \$839,000 for work on the Marine Resources Monitoring, Assessment, and Prediction (MARMAP) program.

back programs, and a commercial shrimp fishery supply model.

- Assisted in the development and review of a report to Congress on the impacts of Hurricanes Katrina, Rita, and Wilma on Gulf Fisheries.
- Monitored a contract for the development of the shrimp vessel gear form database and data entry.
- Assisted the SEFSC in the development of a shrimp vessel cost and earnings survey.

SOCIO-ECONOMICS PROGRAM

The SERO Fisheries Social Science Branch provided review, assessment, and/or authorship services for 12 Gulf fishery Federal management plans, amendments, and rules including the Gulf Aquaculture FMP, Reef Fish Amendment 26 (red snapper IFQ), Reef Fish Amendment 27/Shrimp Amendment 14 (red snapper TAC and shrimp bycatch), Vermilion Snapper Regulatory Amendment, Reef Fish Amendment 29 (grouper LAPPs), Reef Fish Amendment 30A (gray triggerfish and greater amberjack), Reef Fish Amendment 30B (gag), VMS rule, and the BRD testing protocol and decertification rules. Participation continued on technical work groups, panels, and committees as part of the GMFMC Socioeconomic Panel, the GMFMC Ecosystem Management Science and Statistics Committee, and the GMFMC Shrimp Effort Workgroup. Other activities in 2007 included:

- Monitored and provided professional oversight of contracts to conduct post-hurricane fishing community damage assessment, collect cost and earnings data on the Gulf commercial EEZ shrimp fishery, and fishing community data for Gulf states.
- Provided technical monitoring services to research investigations on sequential license buy-

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

Wayne Swingle, Executive Director

The Gulf of Mexico Fishery Management Council is one of eight regional fishery management councils established by the Fishery Conservation and Management Act of 1976 (now called the Magnuson-Stevens Act). The Council prepares fishery management plans designed to manage fishery resources from where state waters end, out to the 200-mile limit of the Gulf of Mexico. These waters are referred to as the Exclusive Economic Zone, or EEZ.

The Council consists of 17 voting members: the Southeast Regional Administrator of NMFS (or his designee), the directors of the five Gulf state marine resource management agencies (or their designees), and 11 members who are nominated by the state governors and appointed by the Secretary of Commerce. Appointments are three-year terms with a maximum of three consecutive terms. In addition, there are four nonvoting members representing the U.S. Coast Guard, U.S. Fish and Wildlife Service, Department of State, and the Gulf States Marine Fisheries Commission.

The Council meets five times a year at various locations around the Gulf coast. Prior to taking final action on any proposed rule change public hearings are held throughout the Gulf. Public testimony is also heard during the meeting, at which final action is scheduled. Proposed rule changes are then submitted to NMFS for further review and approval before implementation.

When reviewing potential rule changes, the Council draws upon the services of knowledgeable people from other state and federal agencies, universities, and the public, who serve on panels and committees.

Panels and committees include Advisory Panels, Scientific and Statistical Committees, Stock Assessment Panels and the Socioeconomic Panel.

Advisory Panels (APs) - Recreational and commercial fishermen, charter boat operators, environmentalists, buyers, sellers, and consumers who are knowledgeable about a particular fishery.

Scientific and Statistical Committees (SSCs) - Economists, biologists, sociologists, and natural resource attorneys who are knowledgeable about the technical aspects of fisheries in the Gulf and advise

the Council on ACL, ABC, and other stock conditions.

Stock Assessment Panels (SAPs) - Biologists who are trained in the specialized field of population dynamics, and who participate in the stock assessment process.

Socioeconomic Panel (SEP) - Sociologists, anthropologists, and economists who advise the Council of social and economic impacts or conditions.

The AP and SSC membership review process is conducted every two years to fill vacancies on panels and committees. At its March 2007 meeting, the Council completed this process.

FMPs

In 2007, the Gulf Council addressed a variety of issues through the development and implementation of various management plans and amendments.

Shrimp

The Council approved and submitted to the Secretary of Commerce Shrimp Amendment 14, which was combined with Reef Fish Amendment 27, in order to address bycatch in the shrimp fishery and directed red snapper fishery, and aid in the rebuilding of the red snapper stock.

After hearing an update on the conditions of the Texas shrimp stocks, an economic analysis, and public comment, the Council again recommended maintaining the Texas shrimp closure for 2007. The closure helps to protect juvenile shrimp migrating from the bays to the Gulf of Mexico, allowing the shrimp to grow to a larger, more valuable size.

Reef Fish

The Gulf Council held 13 public hearings on Joint Reef Fish Amendment 27/Shrimp Amendment 14, which proposes to adjust TAC in order to rebuild successfully the stock as prescribed in Amendment 22. It also will address bycatch issues in both the shrimp fishery and the directed red snapper fishery.

The SSC and Reef Fish AP also reviewed the document and provided recommendations to the Council.

In June, the Council submitted to NOAA Fisheries for approval and implementation joint Reef Fish Amendment 27/Shrimp Amendment 14.

A new Ad Hoc Recreational Red Snapper AP was formed, to discuss and develop new ideas for managing the recreational and for-hire red snapper fisheries.

The Council continued developing four separate amendments to the reef fish fishery management plan. They include:

- Amendment 28, which considers the possible allocation of red grouper. Staff developed and presented an allocation discussion paper for red snapper in November.
- Amendment 29, which proposes to rationalize effort and reduce overcapacity in the commercial grouper fishery as a means to achieve and maintain optimum yield (OY) (the Council later instructed staff to include tilefish).
- Eight scoping meetings were held in September. IFQ participants from British Columbia made presentations to the Council in November, and the Standing and Reef Fish SSC and AP were convened to review the draft document.
- The Ad Hoc Grouper IFQ AP continued its development of the IFQ program.
- Amendment 30A, which provides rebuilding programs for greater amberjack and gray triggerfish.
- Amendment 30B, which will provide rebuilding plans for gag and co-management of red grouper, which is not overfished or subject to overfishing.

NOTE: Eight public hearings were held in September, and the Standing and Reef Fish SSC and AP were convened to review Amendment 30, which was later split into 30A and 30B.

Finally, the Council approved a Regulatory Amendment for vermilion snapper and submitted it for approval by the Secretary. The amendment restores the size limit of 10 inches and increases the bag limit.

Red Drum

The Council accepted its SSC recommendation to develop an Ad Hoc Review Panel for Red Drum,

consisting largely of scientists from the states, the SSC and the SAP to develop research and data needs for the SEDAR Assessment.

In March, the Council appointed members to a new Ad Hoc Review Panel for red drum. The panel reviewed available information and recommended a SEDAR assessment for red drum be convened.

The Council later charged the Ad Hoc AP with developing a long-term research project to collect age structure information by a cooperative research program under which the commercial and recreational fishermen would collect this information.

Coastal Migratory Pelagics

In March, the Council approved convening a special joint meeting between the GMFMC and the SAFMC management groups to reach an agreement on geographic boundaries and mixing of groups of king mackerels.

The Council reviewed the scoping document for Amendment 19 to the CMP FMP and added a provision to establish a boundary between the Gulf and South Atlantic Councils for mackerel at the jurisdictional boundary between the two Councils.

Six scoping hearings were approved, however, because of the decision by the SAFMC to defer any action until SEDAR 16 is completed in 2008, those meetings were not held.

Finally, the Council appointed members to the SEDAR 16 King Mackerel Data, Assessment, and Review workshops for the king mackerel stock assessment.

Aquaculture

The Council in January selected preferred alternatives for the Aquaculture Amendment based on the economic analyses of the affects of each alternative. The SSC was convened to address the SEDAR issues.

For the Aquaculture Amendment, the Council held seven public hearings in July and five more in December. The March hearings resulted in no public comment, while the December hearings were very well attended.

The Aquaculture AP was convened to review the amendment. The Council and IPT then reviewed the public comments and AP recommendations and further revised the document based on that information.

Spiny Lobster

The Council agreed that the CFMC should have the lead in preparation of a joint FMP creating a minimum size limit for lobster imported into the United States.

Sustainable Fisheries Act Generic Amendment

Actions were taken through reef fish, CMP, and shrimp FMP amendments that specify B_{MSY} , OY, MFMT and MSST for managed species.

Data Collection

The Council appointed a select committee of SSC members to review and comment on the actions of the Data and Analysis Group that will be helping to revise the collection of recreational fisheries data under the guidelines of the National Research Council.

The Council directed staff to further evaluate state and other for-hire reporting systems and provide a report to the Data Collection Committee.

The Council also recommended to NMFS that the private recreational and recreational for-hire stakeholders be included in the groups that will design a better recreational data collection program.

Dr. Boreman, NMFS, discussed with the Council NOAA's proposal for revising and improving the MRFSS data collection program. The Council appointed four SSC members to serve on a Select Committee to monitor the working groups undertaking this task. The committee will report to the Council on group's activities.

The NMFS working groups charged with revising the MRFSS were convened to begin their respective tasks. The Select SSC Committee participated in this meeting and provided a report to the Council.

SEDAR

The SEDAR Steering Committee met twice in 2007 to review the terms of reference for grouper, discuss research needs and prioritizations, as well as procedural issues, and to review the SEDAR schedule and SEDAR Guidelines modifications.

The SEDAR process is a three-step process for conducting stock assessments. It consists of a Data Workshop to compile available data, a Stock Assessment workshop to prepare the actual assessment, and an Assessment Review Workshop to provide an independent review of the assessment, conduct additional analyses if necessary, and make

recommendations regarding the status of stock and acceptable biological catch levels.

Ecosystems

The Gulf Council is one of four Councils participating in a pilot project to develop an ecosystem approach to fisheries management.

In May 2007, the Council convened its Ecosystem SSC, along with experts in the use of Ecopath/Ecosim, plus other invited ecosystem-modeling experts for a three-day workshop to demonstrate the feasibility of using ecosystem modeling as a tool to address fishery management issues based on a specific Scope of Work and specific agenda.

A follow-up workshop was held in September, and the group continued its work of refining the Gulf of Mexico Ecosim with Ecopath model, evaluating fishery management issues through an ecosystem model approach, and discussing other more specialized models the might be used in conjunction with the Gulf of Mexico model.

LEAP

The LEAP held its March meeting and discussed a federal fish stamp for recreational fishermen, a preliminary report on the red snapper IFQ program; the provisions of Reef Fish Amendment 27/Shrimp Amendment 14; and provisions of the scoping document for Reef Fish Amendment 30.

Other

In early 2007, the Council, in coordination with NOAA Fisheries and Florida Wildlife and Conservation Commission, held a two-day Grouper Forum, the purpose of which was to provide stakeholders an opportunity to ask questions about fisheries management and science and provide input on ways communication can be improved among stakeholders and government agencies. The forum was also intended to allow government agencies an opportunity to disseminate accurate, timely information to stakeholders regarding grouper.

One outcome of the Grouper Forum was the implementation, by the Council and NOAA Fisheries, of an open Q&A session during each regularly scheduled Council meeting. The sessions are held after hours and are designed to encourage open dialogue between stakeholders and managers regarding fishery management issues in the Gulf of Mexico.

The Council reviewed and commented on the following HMS Issues:

- Regulatory changes for Atlantic swordfish fishery
- Amendment to EFH for Atlantic HMS
- Scoping options for Atlantic sharks fisheries.

Council representatives attended the HMS AP meeting and the ICCAT Advisory Committee meeting and provided review and comment on proposed rules for sharks.

The Council approved the location of the Mote Marine Laboratory artificial reef.

Also in 2007, the Council summarized options for creating Annual Catch Limits (ACLs) and Accountability Measures (AMs), per the MSA reauthorization.

UNITED STATES FISH AND WILDLIFE SERVICE

Douglas J. Frugé, Gulf Coast Fisheries Coordinator

The U.S. Fish and Wildlife Service (FWS) participated in the Gulf States Marine Fisheries Commission (GSMFC) spring (Biloxi, Mississippi, March 12-15) and fall (Point Clear, Alabama, October 15-18) semi-annual meetings.

Participation included meetings of the Anadromous Fish, Habitat and Southeast Area Monitoring and Assessment Program (SEAMAP) subcommittees, the Technical Coordinating Committee (TCC), the State-Federal Fisheries Management Committee (S-FFMC) as well as the Commission business sessions. Doug Frugé, Gulf Coast Fisheries Coordinator in Ocean Springs, Mississippi represented the FWS at both meetings, along with Columbus Brown, Special Assistant to the FWS Southeast Regional Director, at the October meeting.

Besides participation in GSMFC meetings, numerous FWS activities conducted by a number of regional and field offices throughout 2007 contributed to coastal fisheries interests of the five Gulf States and the GSMFC as described below under the major headings of Anadromous Fisheries, Other Coastal Fish and Wildlife Resources, Habitat Protection/Enhancement, Federal Assistance, Law Enforcement and Public Outreach and Education.

ANADROMOUS FISHERIES

A major focus of FWS efforts in the marine fisheries arena is management and restoration of anadromous fish populations. Three species in Gulf coastal waters and rivers are considered anadromous: Alabama shad, Gulf of Mexico sturgeon; and striped bass.

Anadromous Fish Subcommittee

Doug Frugé continued serving as chair of the GSMFC's Anadromous Fish Subcommittee during 2007. The Subcommittee members were contacted during August regarding scheduling a meeting for the GSMFC fall meeting in Point Clear, Alabama. However, it was determined more prudent to try to schedule the meeting in conjunction with the annual Morone Workshop of the Apalachicola-Chattahoochee-Flint (ACF) Rivers Striped Bass Technical Committee (TC) to be held in February 2008.

Alabama Shad

The Alabama shad is an anadromous species native to the northern Gulf of Mexico from the Suwannee to the Mississippi River and historically migrating inland as far as the Ohio and Missouri rivers.

Similar to the other two anadromous Gulf of Mexico species, populations of Alabama shad have declined significantly over the course of the 20th Century. The most significant remaining spawning population is believed to reside in the ACF rivers system. During 2007, the Panama City FRO worked in conjunction with the Georgia Department of Natural Resources (GDNR), the Florida Fish and Wildlife Conservation Commission (FFWCC), The Nature Conservancy (TNC), U.S. Geological Survey (USGS) and other FWS personnel in continuing development of a draft management plan for Alabama shad in the system.

Gulf of Mexico Sturgeon

The Gulf sturgeon is a subspecies of the Atlantic sturgeon native to rivers from the Suwannee in Florida to the Lake Pontchartrain Rivers of Louisiana and Mississippi. It was listed as threatened under the Endangered Species Act (ESA) in 1991. The Gulf Sturgeon Recovery Plan was developed jointly with the GSMFC, also as an Interjurisdictional Fishery Management Plan (FMP) in 1995.

The Baton Rouge FRO continued providing assistance to the Louisiana Department of Wildlife and Fisheries (LDWF) during 2007, in efforts to sample for and track radio/sonic-tagged Gulf sturgeon in Lake Pontchartrain Rivers of Louisiana, primarily the Pearl and Bogue Chitto rivers as part of a study to determine population status and habitat use by the species in those rivers. These efforts included field-sampling trips during March, April, May, June and August.

The Baton Rouge FRO also discussed with the FWS Louisiana Ecological Services Field Office (ESFO) and LDWF staff during the year to consider potential modifications to and improved coordination of Gulf sturgeon recovery activities in the Lake Pontchartrain Rivers, including the Pearl. In October the office hosted a workshop to summarize and coordinate Gulf sturgeon recovery activities in these drainages.

Representatives of the LDWF, USGS, Louisiana State University (LSU), Louisiana Department of Natural Resources (LDNR), TNC and the FWS (Baton Rouge FRO and Louisiana ESFO) met on the LSU campus. The meeting resulted in an improved understanding of the various types of information available from which to assess environmental influences on recovery of the species as well as a coordinated network of involved organizations to better leverage cooperative efforts.

During November, Glenn Constant of the Baton Rouge FRO visited with the LSU School for the Coast and the Environment to review new Dual-Frequency Identification Sonar (DIDSON) sonar image technology to evaluate potential use in sturgeon recovery. This high-definition technology provides almost video-quality images. The possibility of using the LSU DIDSON equipment in the Pearl River to help map critical Gulf sturgeon habitat was discussed.

The Panama City FRO sampled Gulf sturgeon populations in the Choctawhatchee River, Florida/Alabama, Brothers River and Blackwater rivers in Florida, and the Alabama and Perdido rivers and Mobile and Perdido bays in Alabama using stationary and drift gill nets during 2007 to monitor populations in support of various studies to evaluate the success of recovery and management programs for the species. Standard data gathered included total length and weight, and all fish were tagged with passive integrated transponder (PIT) tags and t-bar anchor tag. Some fish were implanted with radio and/or sonic telemetry tags. The work in the Choctawhatchee River included a capture/recapture population estimate conducted in October and November. A total population of 2,800 fish was estimated.

The Panama City FRO continued assisting the NOAA Fisheries Service with sonic telemetry studies of Gulf sturgeon winter habitat use of coastal waters that were begun in 2003 and 2005, one goal of which was to identify potential impacts from Hurricane Ivan on coastal Gulf sturgeon foraging habitats. In 2007 the FWS also collected Gulf sturgeon, implanted acoustic tags, and monitored tagged fish to specifically to examine movement patterns and length of residency in Choctawhatchee and Pensacola bays. Fifty-eight juvenile, sub-adult, and adult Gulf sturgeons from four Florida Rivers (Escambia, Blackwater, Yellow and Choctawhatchee) were surgically implanted with acoustic coded transmitters. In addition 57 underwater fixed acoustic monitoring stations were deployed in

Pensacola and Choctawhatchee bays to provide continuous data on movement of individuals throughout the study site. The Panama City FRO also used manual tracking equipment to monitor fish movement and habitat use. The project is scheduled for completion in federal Fiscal Year (FY) 2008. Preliminary indications are that Gulf sturgeon remain in Choctawhatchee Bay much longer than originally thought; wish some fish being located in the upper bay during mid-summer.

The Panama City FRO also provided various forms of technical assistance with Gulf sturgeon recovery activities to numerous Federal and State agencies, education institutions, and non-government organizations and individuals. This included providing 45 samples of Gulf sturgeon tissue to the Gulf sturgeon genetics bank maintained by the University of Southern Mississippi.

Personnel from a number of FWS offices attended the annual Gulf sturgeon informational and coordination workshop, held November 7-8 in Mobile, Alabama.

Striped Bass

Populations of striped bass in Gulf Of Mexico Rivers have been considered to be below historic population levels since at least the late 1960s and a coordinated cooperative program among state and federal agencies and the GSMFC to restore fisheries and self-sustaining populations have been on-going since that time. The GSMFC developed an interjurisdictional FMP for striped bass in the Gulf in 1986, and that plan was revised in 2006.

Apalachicola-Chattahoochee-Flint Rivers Striped Bass Restoration Technical Committee

The FWS Panama City Fisheries Resource Office (FRO), located at Panama City, Florida coordinates the efforts of the ACF Rivers Striped Bass TC, which is composed of representatives of the states of Alabama, Florida and Georgia as well as the FWS. The TC oversees management of interjurisdictional striped bass restoration efforts in the river system. In this coordination role the Panama City FRO has assisted the TC in completing and periodically revising a 5-year plan for restoration and evaluation of striped bass populations, holding several meetings and conference calls of the TC throughout the year, including the annual Morone Workshop, and coordinating multi-agency broodfish collection, artificial spawning, fingerling production and stocking of Gulf race striped bass into the ACF and other Gulf river systems.

Personnel from several FWS offices (Gulf Coast FCO; Panama City FRO, Florida; Southeast Regional Office, Atlanta, Georgia; Warm Springs Fisheries Technical Center (FTC), Georgia; and Welaka National Fish Hatchery (NFH), Florida) attended the annual Morone workshop sponsored by the TC in Albany, Georgia on February 6-7. Several FWS personnel also participated in a conference call on March 20 as follow-up to that meeting to discuss hybridization and genetics issues of striped bass in Gulf Of Mexico Rivers. Representatives of the Gulf Coast FCO, Panama City FRO and the FWS Southeast RO also participated in the August 27 meeting of the TC at Chattahoochee, Florida. The Panama City FRO coordinated development of a draft brochure on efforts to restore striped bass in the ACF Rivers system as part of the 2008 25th anniversary of the Morone workshop.

Striped Bass Fry/Fingerling Production and Stocking

Through the cooperative efforts of a number of FWS field stations (Welaka NFH; Private John Allen NFH, Mississippi; Natchitoches NFH, Louisiana; Warm Springs NFH; Panama City FRO; and Southeast Region Fisheries Office) as well as the states of Alabama, Florida, Georgia and Mississippi, approximately 1,069,800 Phase I and 76,900 Phase II Gulf race striped bass fingerlings were stocked within the species' historic range in Gulf coastal rivers during the 2007 stocking year (includes early 2008) as part of the multi-agency anadromous striped bass restoration program in the Gulf. Of these fingerlings, NFHs grew and stocked approximately 437,600 (41%) of the Phase Is and 38,200 (50%) of the Phase IIs. Welaka NFH was key to this effort in the spawning of broodfish and production of fry used in producing fingerlings.

The Southeast Region Fisheries Office (Fisheries Supervisor Tom Sinclair) continued coordinating and managing efforts to analyze and monitor genetics of Gulf race striped bass broodfish. A multiple-year FWS contract with the New York University School of Medicine (NYU) to conduct broodfish genetics screening expired in 2005. In 2006 and 2007 the FWS regional genetics laboratory at the Warm Springs FTC began performing the routine genetics screening with NYU conducting quality control of this work through analyses of a subset of samples. The purpose of the screening is to determine specific genotypes of striped bass being used for hatchery production and subsequent restoration stocking within the ACF and other river systems. Knowledge regarding the specific genotypes of fingerlings being produced is essential in applying genetic tagging

procedures and assuring that only Gulf race striped bass are used in restoration stocking efforts. The data are also useful in monitoring genetic composition of the broodstock sources used in the restoration efforts. The Regional Office also continued maintaining a historical database on genetics analyses conducted on striped bass in Gulf Of Mexico Rivers.

Apalachicola River Fingerling Survival/Recruitment Evaluation

The Panama City FRO, in cooperation with Welaka NFH, Natchitoches NFH (Louisiana) and Warm Springs NFH continued a study begun in 2001 to evaluate the relative contributions of stocked Phase I and Phase II fingerlings and naturally-spawned striped bass to the broodfish population in the Apalachicola River. As originally proposed and initiated, the project involved annually stocking oxytetracycline marked (OTC) Phase I fingerlings into Lake Seminole and coded-wire-tagged (CWT) Phase II striped bass into the Apalachicola River through 2005, evaluating short-term fingerling survival by fall electrofishing at fixed stations throughout the river and lake during 2002-2006, screening broodfish for CWT and OTC during 2004-2007, and completing a final report and recommendations. During 2001-2005 a annual totals of 500,000-700,000 Phase I fish were marked with OTC and stocked into Lake Seminole and 50,000-100,000 Phase II fish were marked with coded wire tags and stocked into the Apalachicola River. Electrofishing evaluations of young-of-year fish were conducted in the river during 2002-2006 and CWT and otolith screening of broodfish was conducted during 2004-2007 and will continue through spring 2009. Preliminary results indicate that overall there is low stocking efficiency for recruitment of stocked fingerlings to broodfish (0.00073%). Although Phase II fish recruited to the broodfish population at a slightly higher rate than Phase I's, the numbers of fish involved were very low compared to the total numbers of fish stocked and essentially the same for both fingerling sizes. A final report will be completed in 2009.

Other Striped Bass Restoration Activities

During spring the Gulf Coast FCO provided data on striped bass stocked into Gulf Of Mexico Rivers during the 1960s through 2002 to Dr. Roger Rulifson of East Carolina University as requested for use in preparing a publication on striped bass stocking throughout the species' range.

Also during the year the FWS participated in a number of meetings and discussions within and outside the agency regarding a proposal by the

Florida Fish and Wildlife Conservation Commission (FWC) to change bag and size limits for striped bass in the rivers of the Florida Panhandle north and west of and including the Suwannee River. The proposed change would significantly liberalize the bag limit for striped bass in those rivers, and there were questions raised regarding potential effects of the proposed change on the Gulf race striped bass restoration program. The FWS hosted a meeting on October 10 in Panama City, Florida with FWC and GDNR personnel and to discuss the proposal. The FWC rescinded the proposal from consideration for formal adoption later in October pending efforts to address concerns. Doug Frugé attended a meeting on December 3 with the FWC in Panama City to potential changes to the proposal.

Anadromous Fish Habitat Restoration and Protection

The FWS Ecological Services Field Offices (ESFO) located at: Daphne, Alabama; Jackson, Mississippi; Lafayette, Louisiana and Panama City, Florida implemented numerous aquatic habitat projects and activities within the native ranges of Gulf anadromous fish species during 2007. Although primarily initiated to benefit candidate or Endangered Species Act listed freshwater mussel and fish species, many of these projects also benefited anadromous fishes through addressing problems related to streambank erosion, habitat degradation resulting from poorly-managed agricultural and silvicultural lands, unpaved roads, and streambed sedimentation. Many of the projects were funded through the FWS Partners for Fish and Wildlife and Coastal programs.

Choctawhatchee River Gulf Sturgeon Habitat Assessment

During 2004 the Panama City FRO floated 40 miles of the Choctawhatchee River to identifying environmental disturbances that may threaten Gulf sturgeon spawning habitat. A report was completed that documented the various habitat threats which included sediment runoff from bridge crossings, boat ramps, dirt roads, uncontrolled range land and pastures, eroded river banks, and point and non-point discharges. Landowner lists associated with the environmental disturbances were developed and government and non-government agencies, groups and individuals were contacted in 2006 to work with landowners to undertake habitat conservation practices and minimize the number of environmental threats to Gulf sturgeon spawning habitat. Two landowners with property posing the highest threat to Gulf sturgeon spawning habitat were provided incentives in 2007 to enter into partner agreements with the FWS for habitat restoration efforts in 2008.

Jim Woodruff Lock and Dam Fish Passage Improvement

One of the principal threats to anadromous species is the prevention of spawning migrations by impoundments on major streams. The Jim Woodruff Lock and Dam (JWLD) on the Apalachicola River in Florida, inhibits passage of migratory fish species to spawning and resting areas upstream. A cooperative study among the FWS, USGS, U.S. Army Corps of Engineers (CE), GDNR, FWC, and TNC was initiated in 2005 to evaluate the use of the lock for fish passage at JWLD. The objective of the on-going study is to evaluate fish behavior in and near the lock and to monitor up- and downstream movement to evaluate fish passage opportunities. Sonic tags are being implanted in Alabama shad and Gulf striped bass. Fixed telemetry stations connected to a microprocessor monitor fish behavior near and in the lock. Upstream and downstream movements of fish are monitored by participating agencies. Initial results indicate that Alabama shad and striped bass do pass upstream through the navigation lock.

Water Management in the ACF Rivers System

The Panama City FRO and ESFO continued efforts in 2007 to work with the U.S. Army Corps of Engineers (CE) in efforts to develop and refine reservoir operational policies for the Jim Woodruff Lock and Dam on the Apalachicola River in order to minimize adverse effects on riverine fish and mussel populations. This work became even more urgent and important during the latter part of 2007 as the drought affecting the ACF basin continued and became more severe. This included an ESA Section 7 consultation on the Interim Operating Plan for water management operations at numerous dams within the basin. Revisions to the IOP were necessitated in order to try to maintain sufficient water in Lake Lanier, the primary water supply for the City of Atlanta, Georgia. In November the FWS received an Exceptional Drought Operation (EDO) plan from the U.S. Army Corps of Engineers (CE) for reducing water releases from the basin's reservoirs, primarily Lake Lanier. The EDO called for reducing flows into the Apalachicola River incrementally to 4,750, 4,500 and perhaps eventually to 4,150 cubic feet per second (CFS), depending on continuing severity of the drought and agreements that the states of Georgia and Florida may develop. The FWS conducted a formal Section 7 consultation on the EDO to evaluate potential effects of the plan on the Gulf sturgeon, fat threeridge mussel and the purple bankclimber mussel, which are listed as endangered or threatened under the ESA. The FWS issued a biological opinion (BO), in a compressed timeframe, that the continued existence of the three species

would not be jeopardized nor their critical habitat adversely modified by reductions to 4,500 feet prior to June 1, 2008. The FWS was unable to complete the consultation for the 4,150 CFS level in the time frame available. The CE was expected to determine criteria that might call for reducing flow to 4,150 CFS and re-initiate consultation with the FWS by April 15, 2008. The FWS would then develop a supplemental BO at that flow level for the three species.

Other Habitat Restoration Activities

Other 2007 efforts relevant to habitat restoration in Gulf coastal streams used by anadromous fish species included activities such as the following by the Panama City FRO:

- Evaluating and suggesting actions for rehabilitation and elimination of sediment inputs at road-stream crossings on Eglin Air Force Base (AFB), Florida;
- Implementing a stream monitoring program on Eglin AFB; assisting in revising the Aquatic Ecosystem Adaptive Management Plan for Eglin AFB;
- A partial threats assessment of the Ochlockonee River, Florida to determine potential restoration sites in the watershed to address problems of sedimentation, riparian habitat, unpaved roads and cattle access;
- A geographic information system (GIS)-based threats assessment for the Chipola River watershed;
- A study to assess sediment risk conditions at unpaved roads stream crossings in the Spring Creek watershed. Georgia;
- Working with Early County, Georgia and Golden Triangle Resource Conservation and Development to abate unpaved road soil materials from entering Sheffield Mill Creek;
- Continuing work on identifying barriers to fish passage in the northeastern Gulf rivers;
- A sedimentation assessment of unpaved road stream crossings in the Choctawhatchee Watershed, Alabama;

The Panama City FRO was also an active participant in numerous partnerships focused on watershed and

aquatic habitat restoration, such as the Florida Unpaved Road Interagency Team.

OTHER COASTAL FISH AND WILDLIFE RESOURCES

The Gulf Coast FCO reviewed the SEAMAP 2006-2010 Management Plan and provided comments to the GSMFC on January 23.

On September 4 the Gulf Coast FCO provided photos of hurricane damage to coastal habitat on Sabine National Wildlife Refuge (NWR) to the GSMFC for use in a briefing on coastal habitat restoration needs. The Gulf Coast FCO donated a number of fisheries technical publications to the Gulf Coast Research Laboratory's (GCRL) Gunter Library on December 19.

One of the roles of the FWS Fisheries Program is to provide fishery management assistance on military installations under the Sikes Act. The Panama City FRO conducted a mail survey of Department of Defense (DOD) facilities in the Southeast in 2006-2007 to determine the extent of aquatic habitat and recreational fishing opportunities on these lands. On the 53 installations that responded to the survey there are 65 miles of marine coastline and 22,200 acres of marine bays. Recreational fishing was reported as being compatible with mission activities on 96% of the facilities, with over 193,000 days of angler use being recorded annually. Among the facilities responding, 66% indicated a need for technical fishery assistance to help manage their recreational fisheries. The FWS is able to meet only a small percentage of these needs at current staff levels.

The Baton Rouge and Panama City FROs continued actively monitoring and documenting occurrences of nonindigenous aquatic nuisance species in Gulf Of Mexico Rivers during 2007.

American Eel

During 2004 the FWS and NOAA Fisheries Service were petitioned to list the American eel under the ESA. The 90-day administrative finding on the petition was published in the Federal Register on July 6, 2005 and indicated that the petition presented substantial information indicating that the listing might be warranted. A status review of the species was initiated at that time and continued through 2006. On January 30 it was announced that the agencies had concluded that listing the species was not warranted at that time, despite significant population declines in some eastern U.S. rivers.

The European eel was listed under the Convention on International Trade in Endangered Species (CITES) Appendix II at the 14th Conference of the Parties in late June at The Hague in the Netherlands. Although this listing doesn't apply to the American eel, it should help develop a clearer picture of international trade in this species due to similarity of appearance to the European eel.

Fisheries Information Network

Doug Frugé continued as the FWS representative on the GSMFC's Fisheries Information Network (FIN) Committee and the FIN Administrative Subcommittee during 2007. He attended the FIN meeting in Key Largo, Florida on June 19-20 and the special meeting of the S-FFMC in New Orleans, Louisiana on August 29 to review the 2008 work plan for the FIN and discuss funding issues regarding that program.

Gulf of Mexico Fishery Management Council

Columbus Brown, the FWS Southeast Regional Director's Special Assistant for Coastal Fisheries Commissions, Councils and the Gulf of Mexico Program, and/or Doug Frugé represented the FWS at meetings of the Gulf of Mexico Fishery Management Council (GMFMC) and several of its committees at: Point Clear, Alabama (January 25-26); and Destin, Florida (March 26-29). No FWS personnel were available to attend the full Council sessions held on June 6-7 in New Orleans, Louisiana, July 31-August 1 in San Antonio, Texas and October 31-November 1 in Biloxi, Mississippi due to other priorities. However, Doug Frugé attended the meetings of the Administrative Policy Committee and a joint meeting of the Reef Fish, Red Drum and Mackerel management committees to discuss the Aquaculture Amendment being developed for those respective fishery management plans in New Orleans on June 4, and Columbus Brown attended meetings of the Reef Fish, Red Drum, Shrimp and Spiny Lobster/Stone Crab management committees on October 29-31. Mr. Brown and Mr. Frugé both attended the joint meeting of the Reef Fish, Mackerel and Red Drum management committees on October 30.

During 2007 the FWS served on the Administrative Policy, Artificial Reef, Habitat Protection, Coral Management, Stone Crab/Spiny Lobster Management, Marine Reserves Management and Sustainable Fisheries/Ecosystem Management committees. Mr. Brown served as chair of the Habitat Protection and vice-chair of the Marine Reserves Management committees.

During March the Gulf Coast FCO coordinated the FWS's responses to a letter received by the FWS Southwest Regional Office (RO), as well as the Gulf coastal Ecological Services Field Offices (ESFO) in both the Southeast and Southwest regions, from the NOAA Fisheries Service Southeast Regional Administrator requesting information on FWS concerns with a fishery management plan amendment being developed by the GMFMC and regulations being developed by NOAA Fisheries Service for commercial aquaculture operations in the Gulf of Mexico Exclusive Economic Zone. On June 29 the Gulf Coast FCO reviewed specific portions of the draft aquaculture amendment regarding FWS-specific information and provided comments to the NOAA Fisheries Service at the request of the GMFMC Executive Director. A subsequent thorough review of the amendment was accomplished on September 11-12 with comments provided to the GMFMC and NOAA Fisheries at that time and followed up with additional comments on October 5 and 9.

Gulf of Mexico Research Plan

Doug Frugé participated on a Planning and Review Council for development of a Gulf of Mexico Research Plan being developed by the Alabama-Mississippi Sea Grant Consortium. On June 20 he reviewed and provided comments on information from the Consortium relating to development of the Plan.

National Survey of Fishing, Hunting and Wildlife-Associated Recreation

Preliminary data from the 2006 National Survey of Fishing, Hunting and Wildlife-associated Recreation were made available during the fall and indicated that more than 87 million Americans, or 38 percent of the population age 16 and older hunted, fished or observed wildlife that year, spending \$120 billion pursuing those activities. Of these, 30 million fished, 12.5 million hunted and 71 million participated in wildlife observation activities. The data also indicate that fishing participation had declined about 12% nationwide, with a 15% decline in saltwater fishing and a 23% decline in the Great Lakes since the previous survey in 2001. The National Survey has been conducted every 5 years since 1955.

Sea Turtles

The FWS continued providing support for field operations on the eastern Mexico coast to protect the Kemp's Ridley sea turtle nesting habitat located there. There were 15,032 Kemp's Ridley sea turtle nests recorded on the Mexican beaches during 2007, the highest number recorded since the cooperative efforts between the United States and Mexico were

established in 1978 to protect the beaches that constitute the major nesting areas for the species.

The Laguna Atascosa NWR continued co-leading a number of partners in the South Texas Sea Turtle Project during 2007. In this program beach patrols are utilized to locate and protect nesting Kemp's Ridley and other sea turtles, nests, and hatchlings on South Padre Island (SPI) and Boca Chica (BC) beaches of south Texas. Secondary objectives include environmental education and public outreach to increase awareness of sea turtle conservation through public hatchling releases, literature, and special programs. In addition, live and dead stranded sea turtles located through this program are documented, retrieved, and transferred to the appropriate organization to assist with National Sea Turtle Stranding and Salvage Network efforts. The South Texas Sea Turtle Project is a cooperative conservation partnership between Sea Turtle, Inc., Laguna Atascosa NWR, and Lower Rio Grande Valley NWR. During 2007 daily patrols were conducted by volunteers, interns, and staff from April through mid-July. Patrols ended on July 15, 2007. A total of 22 sea turtle nests, including 20 Kemp's Ridley were found through the project in 2007. All nests found were relocated to a protective corral on South Padre Island, where they were monitored until hatching.

In February a draft Atlantic Loggerhead Sea Turtle Recovery Plan was submitted to the FWS and NOAA Fisheries by the recovery team for agency review. Five-year status reviews for the loggerhead, hawksbill, leatherback, Kemp's Ridley and green sea turtles were completed in August, with recommendations for maintaining the current listing status of all five species.

The FWS Alabama ESFO at Daphne worked with local high school students in late March on an ongoing dune restoration project on the Alabama coast. The FWS assisted students from Daphne and Foley High Schools in planting a variety of dune plants that had been grown at their respective schools. The planting took place at locations on Alabama's Gulf State Park that suffered extensive damage from Hurricanes Ivan and Katrina. The dunes and beaches, once restored, will provide habitat for nesting sea turtles, as well as for the Alabama and Perdido Key beach mice and shore birds. The "Grasses in the Classes Program" is a cooperative effort of the FWS, Baldwin County Schools, Weeks Bay National Estuarine Research Reserve, Natural Resources Conservation Service, the Alabama Department of Conservation and

Natural Resources, and Gulf State Park. The FWS provides part of the funding for the nursery grown plants as well as technical expertise in the planting process.

The NOAA Fisheries Service and FWS were petitioned November 15, 2007 to change the listing of the western North Atlantic loggerhead sea turtle population from threatened to endangered status under the ESA. The NOAA Fisheries Service has the lead for responding to the petition and issuing the 90-day finding.

West Indian Manatee

On April 9 the FWS announced the completion and availability of its five-year status review of the West Indian manatee, a federally-listed species protected under the ESA. This review included both the Florida and Antillean subspecies of manatee. After reviewing all of the best scientific and commercially available information and data the FWS concluded that the species no longer fits the ESA definition of endangered and made a recommendation to reclassify it to threatened status. The recommendation does not actually change the manatee's listed status or level of protection. Reclassifying a species requires a more formal administrative process, including a proposed rulemaking through the Federal Register with an opportunity for stakeholder and public review and comment.

HABITAT PROTECTION/ENHANCEMENT

On August 10 Doug Frugé participated in a meeting at the GSMFC office in Ocean Springs, Mississippi with GSMFC personnel and representatives of TORP Terminal LP regarding the Bienville Offshore Energy Terminal (BOET), a proposed liquefied natural gas (LNG) collection/processing facility to be located approximately 63 miles south of the Alabama coast.

Ms. Mike Gantt, the FWS Southeast Regional Coordinator for Grants, Partnerships and Ecosystems, represented the FWS in a grants fair/workshop at the Mississippi State University Coastal Research and Extension Center in Biloxi sponsored by the Mississippi Department of Marine Resources (MDMR) on August 17. Approximately 40 persons attended the event seeking information on grants, mostly focused on habitat restoration. The event targeted representatives of state and local governments and non-governmental organizations.

Comments were provided by FWS offices, primarily the Gulf Coast FCO, to the GSMFC/GMFMC Habitat Staff Specialist on several occasions during the year on draft letters of comment regarding

proposed development activities affecting coastal habitats. These included: a letter on July 2 to the CE on proposed dredging of the Matagorda Ship Channel in Texas; and on August 6 a draft letter of comment to the U.S. Coast Guard regarding the environmental impact statement for the BOET.

The Panama City FRO completed pre-restoration monitoring of Oyster Lake near Panama City, Florida in order to establish a baseline for analyzing the effects of efforts to re-connect the lake to the Gulf of Mexico. The lake has been disconnected from the Gulf since 1975 by a causeway and water control structure. A plan exists to re-connect the lake through removal of a portion of the causeway and renovate the structure. A small portion of the causeway was removed in 2007, and it is hoped the main portion of the barrier will be removed in 2008.

The FWS ESFOs at: Vero Beach, Jacksonville (St. Petersburg Sub-Office), and Panama City, Florida; Daphne, Alabama; Jackson, Mississippi; Lafayette, Louisiana; Houston and Corpus Christi, Texas continued efforts to protect and restore coastal habitats through a variety of activities, many involving review of federal permit applications, consultations involving potential effects on species listed under the ESA, and activities under the FWS Environmental Contaminants and Coastal programs.

The Lafayette ESFO, Louisiana continued representing the FWS on the interagency Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA or Breaux Act) Team in developing and sponsoring wetland restoration projects focused on reducing subsidence and erosion-related wetlands loss in coastal Louisiana. The Lafayette ESFO also participates as the FWS lead in the Louisiana Coastal Area Study with the CE and Louisiana Department of Natural Resources. Numerous other FWS offices, including the Baton Rouge FRO and the coastal NWRs in Louisiana were also involved in various aspects of planning or implementing coastal restoration strategies and projects during the year.

Coastal Program

The Florida and Texas Gulf Coastal programs, through the Jacksonville, Vero Beach, Panama City, Houston and Corpus Christi ESFOs contributed funding and technical assistance to numerous partners for a variety of habitat protection and restoration projects benefiting coastal habitats during the year. As part of the Living Shoreline Initiative (LSLI), the FWS Coastal Program in the Florida Panhandle assisted the Alabama, Florida and Mississippi Sea Grant Extension offices in

sponsoring a workshop for property owners, marine contractors, consultants, coastal managers, and regulators working in these states' coastal areas. About 100 participants attended the event at the Five-Rivers Delta Resource Center in Spanish Fort, Alabama, in November 2007. The workshop focused on the use of "soft" alternatives instead of seawalls to protect eroding shorelines. The workshop may be followed by others in the future.

Gulf of Mexico Program and Gulf of Mexico Alliance

Columbus Brown continued serving as the primary FWS representative to the Gulf of Mexico Program (GMP), a state-federal-private partnership coordinated by the Environmental Protection Agency (EPA), focused on the environmental health of the Gulf of Mexico. Mr. Brown continued representing the FWS on the Management Committee during 2007. However, the focus groups of the GMP, on which several other FWS personnel serve, were not active during 2007 due to the GMP Office shifting its major efforts toward support of the Gulf of Mexico Alliance (GMA), a partnership formed in 2004 between the five Gulf of Mexico states, with federal agency support, focused on sharing science, expertise and financial resources to better protect the health of the Gulf. Mr. Brown also began serving during 2005 as the primary FWS representative on the Federal Workgroup for the GMA. Doug Frugé, of the Gulf Coast FCO, also had some involvement with the GMA during 2007. He attended the Mississippi portion of a workshop on coastal habitat restoration held by the GMA in Spanish Fort, Alabama on March 7, the GMA Implementation and Integration meeting in St Petersburg, Florida on July 10-11 and a meeting on August 24 and conference calls in September and October among U.S. Department of the Interior (DOI) personnel involved in the GMA. The Gulf Coast FCO also provided information and assistance to other state and federal agency personnel involved in the GMA during the year.

Mississippi River/Gulf of Mexico Watershed Nutrient

The Mississippi River/Gulf of Mexico Watershed Nutrient (MR/GMWN) Coordination Committee (CC) was formed in 2000 to assist the MR/GMWN Task Force in addressing hypoxia in the northern Gulf of Mexico. The Task Force is coordinated by the EPA. The Gulf Coast FCO continued providing FWS representation on the CC. However, efforts during 2007 continued to consist primarily of keeping other FWS offices in the Southeast and Midwest regions apprised of Task Force activities due to limited staff time of the Gulf Coast FCO being

occupied by other work. The main focus of the Task Force during 2007 continued on an update and revision of the 2001 Gulf Hypoxia Action Plan. Doug Frugé participated in a conference call on October 26 among DOI personnel regarding the draft revision. Comments on the draft Action Plan were provided to the EPA on November 8.

The Task Force has established a number of sub-basin teams and state working groups to carry out its work, one of which is the Louisiana Hypoxia Working Group. Doug Frugé and Glenn Constant of the Baton Rouge FRO attended the monthly meeting of the Louisiana Hypoxia Working Group in Baton Rouge, Louisiana on May 29. Doug Frugé also attended a meeting of the Lower Mississippi River Sub-basin Team on September 18 in Olive Branch, Mississippi.

National Fish Habitat Action Plan

The National Fish Habitat Action Plan (NFHAP) is a strategy to support locally-driven efforts that build private and public partnerships to improve fish habitat across the nation. The NFHAP partnerships are self-identified, self-organized, and self-directed communities of interest formed around geographic areas, keystone species, or system types. Development of the plan was initiated in 2001 when an ad hoc group supported by the Sport Fishing and Boating Partnership Council explored the idea of developing a partnership effort for fish on the scale of what had been done for waterfowl in the 1980s through the North American Waterfowl Management Plan. The proposal to develop the NFHAP was formally put forth in the FWS Fisheries Program's strategic vision document, *Conserving America's Fisheries: Fisheries Program Vision for the Future* in December 2002. The NFHAP was completed in 2006, and in federal FY 2006 a total of \$1 million in funding was appropriated to the FWS for initiating implementation of the plan through on-the-ground projects. Only \$1 million was again available in FY 2007 due to the FWS being level funded that year. However, approximately \$5 million was requested for FY 2008.

A proposal that had been identified by the FWS for restoring 1.5 acres of coastal marsh habitat along Bennett Bayou, just north of the City of Moss Point, Mississippi in the Pascagoula River basin was selected for NFHAP FY 2006 funding in the amount of \$32,667. Wetland habitats in the area had been destroyed and degraded by an abandoned commercial marina development. The primary partner in this project, the Land Trust for the Mississippi Gulf Coastal Plain (Land Trust) had previously purchased

the site. The Southeastern Association of Fish and Wildlife Agencies provided the funding to the Land Trust on behalf of the SARP. The project is adjacent to the new Pascagoula River Audubon Center, which will incorporate the restored Bennett Bayou area into its environmental education programs and conduct long-term monitoring of the project site.

The Gulf Coast FCO provided field-level coordination for the project between project sponsors, the NFHAP, the SARP and the FWS Southeast Regional Office. During 2007 the project sponsors gathered baseline data on plant species and elevations from a nearby intact reference wetland in order to develop a detailed working restoration plan, treated and removed invasive plant species from the site, removed rip-rap from the site, removed a deteriorated boat slip canopy structure, removed existing fill and used it to re-fill the existing boat basin to reference wetland elevations, planted native tidal marsh vegetation to stabilize banks and re-vegetate newly created marsh areas, and maintained an existing channel for boat access by visitors and project personnel to the Pascagoula River. The project was scheduled for final completion in 2008.

The Gulf Coast FCO took advantage of opportunities throughout the year to seek ideas for additional projects from partners for potential NFHAP funding. This included meetings of the GSMFC's Habitat Subcommittee, the Pascagoula River Basin Alliance and the GMA. Meeting participants were specifically invited to submit project proposals. The Gulf Coast FCO and Panama City FRO submitted a number of additional projects for potential funding under the NFHAP for Fiscal Year 2008 in October, and some of those were focused on coastal habitats.

National Wildlife Refuges

A total of 37 NWRs perpetually protect and manage thousands of acres of coastal wetlands in each of the five Gulf States providing critical nursery habitat for most of the commercially and recreationally important fish and shellfish species in Gulf fisheries. Additionally, most of these refuges also provide access to and opportunity for coastal recreational fishing.

In May approximately 30 students from Louise S. McGehee School in New Orleans spent a morning restoring a section of marsh at Bayou Sauvage NWR, Louisiana. The marsh was damaged during the removal of a barge which floated in on Hurricane Katrina's storm surge. The marsh grass planting was one in a series of Community Service Days carried out by volunteers from the school.

Following the hurricanes of 2005 the U.S. Congress provided more than \$132.4 million in emergency supplemental appropriations to the FWS in the Southeast Region for recovery. The agency committed to obligating 90 percent of this funding for recovery construction by June 30, 2007. The emergency funds must be spent only to restore land, facilities, and equipment damaged or lost as a result of the storms. Hurricane Rita did more than \$3 million in damage at Sabine NWR, irreparably damaging the office/visitor center and storage facilities; rolling up marsh like a carpet, leaving open water behind; and dumping a jumble of debris on the refuge that included hazardous materials, houses, boats, electronic goods and marsh grass. The Service cleaned up 36,000 acres of marsh at Sabine and two other nearby refuges. Elsewhere in Louisiana and in parts of Mississippi, 60 miles of canals were restored and work is underway to repair more than 43,000 feet of levees, 22 water control structures, and nearly 200,000 feet of canals.

Southeast Aquatic Resources Partnership

The Southeast Aquatic Resources Partnership (SARP) was established in 2001 in order to better unify joint state and federal agency efforts in addressing the numerous aquatic resource challenges in the region. The SARP is envisioned as functioning similarly to the migratory bird joint ventures, but with a focus on aquatic resources, with habitat protection, restoration and enhancement being a primary focus. The GSMFC became a signatory to the SARP Memorandum of Understanding in 2003. The FWS Southeast Region Fisheries Assistant Regional Director, Linda Kelsey, serves as vice-chair of the SARP Steering Committee. The Gulf Coast FCO also continued to provide advice and support during 2007 to the SARP Coordinator and Steering Committee. Several FWS personnel attended SARP Steering Committee meetings in Nashville, Tennessee on May 8-9 and November 14-15.

The major focus of the SARP during 2007 was development of the Southeast Aquatic Habitat Plan (SAHP), a step-down plan to help implement the NFHAP in the Southeast. During 2007 the SARP was officially recognized as a fish habitat partnership under the NFHAP. The SAHP is being developed as a joint effort of all the member agencies and partners of SARP plus many other stakeholders throughout the region. It is broad and regional in nature, given the geographic and biological range of the SARP's 14 member states. The plan has eight broad objectives focused on all aquatic habitats in the Southeast from headwater streams to marine waters. A number of FWS personnel were involved in

various aspects of drafting the SAHP, including attending the second SAHP stakeholder workshop on April 9-12 in Charleston, South Carolina. Doug Frugé participated on the SARP Habitat Work Group which drafted the plan and specifically worked on drafting the Plan's resource targets. Following a meeting of the Work Group on July 25-26 in Lafayette, Louisiana to review, discuss and edit the draft Plan it was sent out to selected stakeholders for review and comment. The FWS's comments on the Plan were compiled and provided to the SARP on November 1, and additional comments were provided by the Gulf Coast FCO as a Work Group participant in November.

Water Issues

The FWS, primarily through the Panama City and Daphne ESFOs, continued working on efforts to determine and protect water needs of aquatic resources in the on-going disputes involving the states of Alabama, Florida and Georgia and various federal agencies on water use and allocations in the Alabama-Coosa-Tallapoosa (ACT) and the ACF river basins. Basin commissions that had been established to resolve these issues were dissolved in 2004 and efforts at resolution have continued for the most part since that time through court actions and related activities and through informal coordination meetings. The issue of water use in the basin reached a crisis point in the latter half of 2008 when continuing drought conditions resulted in projections that the water level in Lake Lanier on the Chattahoochee River would reach a critically low level in early 2008. Specific actions by the FWS in relation to this issue are described above under "Anadromous Fish Habitat Restoration and Protection".

The drought in the Southeast has also affected the Alabama-Coosa-Tallapoosa (ACT) river basin in Alabama and Georgia similarly to the ACF. The ACT hosts 27 federally-listed aquatic species. The FWS monitored the effects of drought and reduced flows on these species and were in close consultation with the CE and Alabama Power, which operate dams on the river. The Alabama Power dam operations are subject to licensing provisions of the Federal Energy Regulatory Commission. Reduced flows in both the ACF and ACT basins have effects on estuarine in addition to in-stream resources.

FEDERAL ASSISTANCE

The FWS continued providing funds to Gulf of Mexico states for estuarine and marine sport fish restoration projects under the Federal Aid in Sport Fish Restoration Act during 2007. This also included

provision of funds to the GSMFC (\$200,000) through an Administrative Grant and funds to the states to coordinate and administer coastal sport fish restoration programs. In addition, grants were also made available to some Gulf States under the Coastal Wetlands, Clean Vessel Act, Boating Infrastructure, Endangered Species, North American Coastal Grant and State Wildlife Grants (SWG) programs. Funding allocations and brief descriptions of the types of projects funded during federal FY 2007 (October 1, 2006 - September 30, 2007) are described below.

Sport Fish Restoration Grants

In Alabama a total of \$793,402 was apportioned to the Marine Resources Division of the Department of Conservation and Natural Resources for marine sport fish restoration activities. Projects included: grant coordination and administration of sport fish restoration programs; maintaining and improving boating access in coastal areas; conducting a statewide aquatic education program; enhancing recreational sport fishing in marine waters through fishery-dependent and fishery-independent data collection, public outreach, habitat enhancement, and life history research and improve facilities and equipment.

A total of \$5,229,382 was apportioned to the FFWCC to carry out marine sport fish restoration activities, although some of this funding was also applied to efforts on the Florida east coast. Projects included: grant coordination and administration of sport fish restoration programs; planning, assessing, developing and administering a system of artificial reefs in state waters; collecting marine recreational fisheries data; investigations into nearshore and estuarine gamefish abundance, behavior, ecology and life history specifically for snook, spotted seatrout, red drum and tarpon; enhancing the recreational fisheries component of the Marine Resources Geographic Information System; determining and applying population genetics for fishery management of Florida sportfish species, including Atlantic tarpon, bonefish and red drum; monitoring and managing the health of sport fish cultured for release; developing life history and population dynamics information necessary to maintain viable, productive recreational reef fisheries in southeast Florida including gray snapper, yellowtail snapper, lane snapper, mutton snapper and red grouper; conducting a statewide Sport Fish Restoration marine education program; conducting outreach to better inform citizens regarding the benefits of the state's Sport Fish Restoration programs; inventorying, maintaining and planning for additional needs for boating access facilities; renovating and improving Sebastian Inlet

State Park at Coconut Point by replacing existing deteriorated ramps; and documenting habitat utilization, trophic dynamics and population characteristics of snook and largemouth bass in coastal rivers.

The LDWF received \$2,139,294 for marine sport fish restoration. Projects funded included: Sport Fish Restoration Program coordination and administration; establishing a Louisiana Aquatic Education Program to enhance the public's awareness of aquatic resources as related to sport fishing; stock assessment of various marine finfish species; identifying essential fish habitat in coastal waters; maintaining a marine sport fish tagging study in Barataria Bay; evaluating and documenting the value of limestone based inshore artificial oyster reefs as essential fish habitat for important marine sport fish species, associated forage species and benthic invertebrate colonizing species; establishing an outreach program to inform the Louisiana citizens of the benefits of the Sport Fish Restoration Program; constructing Phase I improvements at the Venice Marina in Plaquemines Parish, to include asphaltting the road, and redressing the parking area; and providing technical guidance and review of proposed land and water development projects that could potentially impact fish and wildlife resources.

A total of \$792,843 was provided to the Mississippi Department of Marine Resources in FY 2007 for marine sport fish restoration efforts. Specific projects included: administering and coordinating the marine Sport Fish Restoration Program; developing, renovating and maintaining public boat ramp facilities; evaluating the condition of stocked striped bass populations in Mississippi coastal waters; a public outreach program to disseminate information on the benefits and implementation of the coastal Sport Fish Restoration program; coordination, site identification and monitoring of the Mississippi Artificial Reef Program; collecting data on relative abundance and age structure of spotted sea trout, red drum and selected shark species to support recommendations for more effective management of these species; and managing a recreational tag and release program in coastal Mississippi to encourage fishers to take measurements and keep accurate records on seatrout, cobia and tripletail they catch and tag.

The Texas Parks and Wildlife Department was apportioned \$5,697,717 for marine sport fish restoration programs. Specific projects carried out included: monitoring trends in landings, relative abundance, and size of recreationally important fishes

in the marine waters; operating and maintaining the Perry R. Bass Marine Research Facility, the Sea Center State Fish Hatchery, and the GCCA/CPL Marine Development Center, all of which produce red drum and spotted seatrout fry and fingerlings for stocking in Texas bays; providing technical guidance, project review and recommendations to private, local, state and federal regulatory entities regarding proposed development projects with potential to impact marine recreational fisheries species; administrative support for research activities at the Perry R. Bass Marine Fisheries Research Station; describing age, growth, reproduction and population characteristics of sand seatrout in Texas coastal waters; dredging the channel at Port Mansfield to maintain safe passage for recreational boats; improving the Cameron County Isla Blanca Park Boat Ramp; determining the genetic population structure of southern flounder along the Texas Coast; determining the genetic population structure of alligator gar along the Texas Coast; dredging and renovations to improve boating access at Kaufer Hubert Memorial park at Riviera on Baffin Bay; constructing a boat ramp and dock facility at the City of Surfside Beach Jetty Park to provide to the Brazos River/Freeport Ship Channel; and improving and expanding the existing Copano Bay boat ramp area and fishing pier, near Fulton, Texas.

Coastal Wetlands Grants

The State of Texas received \$ 398,637 under the Coastal Wetlands Grant Program in FY 2007 to protect 689 acres of coastal wetlands and riparian habitats through fee title acquisition in the Guadalupe River delta.

Clean Vessel Act Grants

Four Gulf States received funding under the Clean Vessel Act (CVA) in FY 2007 for coastal projects. This included \$205,128 awarded to the State of Alabama to construct/renovate 10 pump-out facilities and place one pump-out boat and conduct CVA-related outreach activities. The State of Florida received \$1,325,652 to construct/renovate 54 pump-out facilities on the coast and conduct outreach activities to inform the public of the locations and benefits of pump-out facilities. A total of \$93,234 was awarded to the State of Mississippi to construct/renovate six pump-out facilities in coastal Mississippi and conduct outreach regarding the benefits of vessel pump-out facilities. In addition the State of Texas received \$455,838 to provide boater amenities at three different sites on the Texas coast.

Boating Infrastructure Grant Program

Under the Boating Infrastructure Grant Program three Gulf States received funding in FY 2007. The State of Louisiana received \$99,000 to remove existing dilapidated and leaning pilings, dredge in and around the boat stalls, and the construct eight new tie-up facilities for transient boaters with amenities such as water and electricity at the Slidell Marina. In Mississippi a total of \$ 100,000 will be used to increase the number and quality of tie-up facilities for large recreational transient vessels at the Biloxi Schooner Pier. The State of Texas received \$599,140 to add a 200 linear foot floating dock with six fingers that will provide twelve new boat slips with electrical and water hookups at Port Lavaca and construct 15 new non-trailerable boat slips designated for use by transient boaters in the Rockport-Fulton area of Aransas County.

Endangered Species Grant Program

Under the Endangered Species Grant Program three states received funding for projects focused on coastal aquatic resources. The State of Alabama received \$10,134 for a population survey of the saltmarsh topminnow. The State of Florida will use \$19,116 to continue to provide the long-term data necessary to accurately assess sea turtle nesting activity and nest success trends on Florida beaches through the Index Nesting Beach Program, which will provide information to land managers for making educated land management decisions to ensure the long-term survival of sea turtles in Florida. The State of Louisiana will use \$5,250 to increase public awareness of the occurrence of manatees in Louisiana waters.

North American Coastal Grant Program

Under the North American Coastal Grant Program the State of Louisiana received \$950,000 for the Maurepas/Pontchartrain Habitat Conservation Effort III.

State Wildlife Grants

Three states received funding under the SWG Program for work related to coastal fisheries resources. The State of Florida received a total of \$3,140,466 in general project implementation. Among these projects were several focused on coastal resources: a project to link biodiversity/life history data to habitat in west coast waters to use as a tool for marine ecosystem management; distribution mapping of freshwater/tidal stream fishes; experimental evaluation of a technique to restore seagrass habitat damaged by boats; restoration,

monitoring and management of prop scars in seagrass beds in St. Andrews Bay; study the effects of water quality and seagrass bed architecture/ location on fish distribution/abundance in Tampa Bay; assess importance of horseshoe crab eggs to migrating red knots and sanderlings during refueling stops on Gulf beaches; and continue studying and evaluating the use of coral aquaculture for restoration of coral reefs. Florida also received targeted funding of \$1,369,500 for a specific project to map shallow-water benthic habitats of the Florida Keys Coral Reef Ecosystem.

The LDWF received funding under the SWG Program for a number of specific projects involving coastal and marine resources. A total of \$249,407 was received for a comparative study of fish fauna in natural and altered habitats on the three barrier islands systems: Isles Dernieres, Timbalier, and Barataria to give managers a better understanding of the types of impacts of altered habitats on fish assemblages and what types of restoration activities are beneficial. Another project totaling \$98,840 for quantifying the relationships between edge habitat complexity and nekton use will provide information for guiding future management actions for species of conservation concern. A \$30,893 project will evaluate the effects of the Caernarvon water diversion off the Mississippi River on non-fishery aquatic organisms and aquatic community structure and evaluate the validity of different community and growth metrics that can be used for rapid assessments of nekton communities in Louisiana coast-wide to help in evaluating the effectiveness of marsh creation/restoration projects.

The State of Texas received funding for two coastal projects. A \$13,000 project will provide baseline data on terrapin distribution and population characteristics and serve as a starting point for population studies in other areas of Texas as well as provide status and trend information on the terrapin population in Galveston Bay, which will serve as an indicator of the overall health of Galveston Bay. Another project for \$150,000 will complete Phase II of the Goose Island Shoreline Stabilization and Marsh Restoration Project will restore resulting in restoration of 24 acres of intertidal, emergent, estuarine marsh in Aransas Bay providing valuable nursery habitat for commercial and recreational fishery species and feeding and cover for wading birds, shorebirds, and other wildlife species.

LAW ENFORCEMENT

Officers of the FWS Division of Law Enforcement continued to work closely with state and NOAA Fisheries enforcement agents in enforcement of laws

affecting or beneficial to conservation of Gulf of Mexico fisheries and other aquatic resources. In Florida, a Lee County Sheriff's Deputy began enforcing marine protection laws on June 21 when the officer became a deputy FWS law enforcement officer under an agreement between the FWS and the county Sheriff's Office to dedicate a full-time deputy to focus on protection of marine resources. The deputy will assist county natural resources personnel in the investigation, apprehension and prosecution of abandoned vessel cases; enforcement of state and federal manatee protection zones; and monitoring of fisheries violations on Lee County artificial reefs. Agreements to deputize officers federally are usually entered into only with state agencies.

The FWS and NOAA Fisheries Service announced in August a new partnership aimed at improving efforts to use genetic testing to identify shark species to help enforcement efforts focused on curtailment of finning. The work is being performed by the NOAA Center for Coastal Environmental Health and Biomolecular Research in Charleston, South Carolina and at the FWS's National Fish and Wildlife Forensics Laboratory in Ashland, Oregon.

In another partnership effort involving investigations by law enforcement officers of the FWS, NOAA Fisheries and Canada, a Hialeah, Florida seafood dealer was charged in July with conspiracy to smuggle large quantities of queen conch taken in the Caribbean to customers throughout the United States and Canada in violation of the Lacey Act. The queen conch is an endangered species and also protected under the CITES. The conch shipments were initially discovered in shipments falsely labeled as whelk at the Canadian border, but confirmed as being queen conch through genetics testing by the FWS National Forensics Laboratory.

PUBLIC OUTREACH AND EDUCATION

The Baton Rouge FRO, Gulf Coast FCO and Panama City FRO, as well as the ESFOs, responded throughout the year to numerous telephone and other inquiries from the public for general information and questions on coastal fishing and fish habitats. Examples of specific contacts included:

- Discussion by the Gulf Coast FCO of the impacts of hurricanes on fish and wildlife on February 8 with a south Mississippi author who was interested in writing a book for children on the subject and identification of a mantis shrimp from a photo provided;

- Discussion by Doug Frugé on the roles and organization of the FWS on July 20 with Stephanie Taylor, a student from Auburn University who was working for the GSMFC as an intern during the summer;
- Assistance by the Gulf Coast FCO to the local representative of the Coastal Conservation Association in locating distribution copies of a Sea Grant publication on fisheries management on August 13;
- The Gulf Coast FCO providing tide tables for the Ocean Springs area to a visitor to the office on September 6;
- Assistance by the Gulf Coast FCO in obtaining state-specific saltwater fishing participation and economic expenditure data from the FWS Division of Federal Aid in Washington, DC upon request by a charter-fishing advocate;
- Assistance by the Gulf Coast FCO to a caller on December 28 looking for information on a wetlands site in coastal Mississippi.

Also during the year the Gulf Coast FCO participated on a committee coordinated by the GMP to review an application by the J.L. Scott Marine Education Center (MEC) of the GCRL, Mississippi State University in Ocean Springs, Mississippi, for certification as a Coastal America Coastal Learning Center. The committee met at the MEC on March 5-6. The MEC was certified later in the year, and Gulf Coast FCO delivered a number of outreach materials being contributed by the FWS to the MEC on October 25. Columbus Brown represented the FWS at an event held at the MEC on November 2 to celebrate the MEC's Coastal Learning Center designation, which was also attended by Mississippi Governor Haley Barbour and U.S. First Lady Laura Bush.

Personnel of the FWS Southeast RO participated in World Ocean Day at the Georgia Aquarium in Atlanta on June 8. A total of 8,400 guests participated in the event, which focused on invasive species.

The Panama City FRO provided information, gave presentations, and manned information booths describing FWS programs to numerous civic and school groups, environmental outreach events, and festivals such as Earth Day and the Junior Museum Safety Day held in Panama City. The office also participated in the St. Vincent NWR Open House and the NOAA Fisheries Panama City Laboratory Open

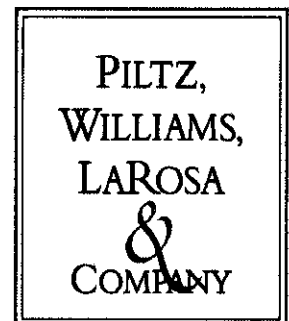
House which drew over 1,500 visitors. Topics included the restoration of anadromous fish species, recovery of threatened and endangered fish and mussels, aquatic habitat restoration, and recreational fisheries.

The Panama City FRO also assisted the FWC with a "Kids' Fishing Clinic" in Panama City which drew over 250 children, adults, and volunteers. The kids spent 10 minutes at various learning stations (fish habitat, fishing ethics, safety and casting) after which they received a free fishing rod and reel and tackle box and were able to fish for free on a Gulf pier.

The Panama City FRO obtained several signs from the FWC warning boaters of the hazards of jumping sturgeon and placed them at boat ramps on the Choctawhatchee and Brothers rivers in Florida. In recent years incidents have been documented of recreational boaters having collisions with jumping sturgeon in the Suwannee River. Some of the collisions have resulted in serious injuries prompting the FWC to initiate a program to post signs at boat ramps on the Suwannee River warning boaters about the jumping sturgeon and reduce their speed.

Panama City FRO and TNC staff took some local Cub Scouts on a field trip collecting Gulf sturgeon in the Choctawhatchee River. The scouts helped in netting, measuring and weighing the fish, applying tags, and recording data.

Financial Statements
Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi
December 31, 2007



CERTIFIED PUBLIC ACCOUNTANTS
A Professional Association

Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

Financial Statements

December 31, 2007

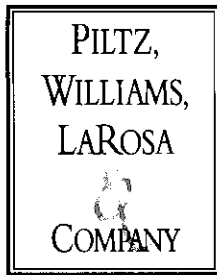
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Independent Auditors' Report

Board of Commissioners
Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

We have audited the accompanying financial statements of the governmental activities, each major fund, and the aggregate remaining fund information of Gulf States Marine Fisheries Commission as of and for the year ended December 31, 2007, which collectively comprise Gulf States Marine Fisheries Commission's basic financial statements as listed in the table of contents. These financial statements are the responsibility of Gulf States Marine Fisheries Commission's management. Our responsibility is to express opinions on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinions.

As described in Note A, these financial statements were prepared on the modified cash basis of accounting, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, each major fund, and the aggregate remaining fund information of the Gulf States Marine Fisheries Commission, as of December 31, 2007, and the respective changes in financial position-modified cash basis, thereof for the year then ended in conformity with the basis of accounting described in Note A.

In accordance with *Government Auditing Standards*, we have also issued our report dated July 15, 2008 on our consideration of Gulf States Marine Fisheries Commission's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Governmental Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

The management's discussion and analysis and the budgetary comparison schedule and corresponding notes on pages 3 through 5 and 19 and 20, are not a required part of the basic financial statements but are supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise Gulf States Marine Fisheries Commission's basic financial statements. The accompanying schedule of expenditures of federal awards which is presented for purposes of additional analysis as required by U.S. Office of Management and Budget Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, and is not a required part of the basic financial statements of Gulf States Marine Fisheries Commission. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated, in all material respects in relation to the basic financial statements taken as a whole.

Piltz, Williams, Ladd & Co.
Certified Public Accountants

Biloxi, Mississippi
July 15, 2008

Section I

Management's Discussion and Analysis

Management's Discussion and Analysis

Our discussion and analysis of the Commission's financial performance provides an overview of the Commission's financial activities for the year ended December 31, 2007. Please read it in conjunction with the Commission's basic financial statements, which are found in Section I.

Using this Annual Report

This annual report consists of a series of financial statements. The Statement of Net Assets-Modified Cash Basis and the Statement of Activities-Modified Cash Basis provide information about the activities of the Commission similar to that of a for profit private-sector business enterprise with the appropriation and use of economic resources as the measurement focus. The notes to financial statements provide detailed support to individual balances and classes of transactions found in the various statements. The required and other supplemental information (see Section III) provides information about the Commission's operating activities as compared to its budget, as well as certain other schedules required by *Government Auditing Standards*.

The Statement of Net Assets-Modified Cash Basis reports the Commission's net assets. You can think of the Commission's net assets (the difference between assets and liabilities) as one way to measure the Commission's financial health, or financial position. Net Assets are divided into the following two basic categories: Net assets invested in capital assets, net of related debt and net assets unrestricted and available for spending. Over time, increases or decreases in the Commission's net assets are one indicator of whether its financial health is improving or deteriorating. The Statement of Activities-Modified Cash Basis measures the annual change in the net assets displayed on the Statement of Net Assets-Modified Cash Basis.

Net assets – net assets may serve over time as a useful indicator of government's financial position. In the case of the Commission, assets exceeded liabilities by \$557,558 as of December 31, 2007.

By far the largest portion of the Commission's net assets (51%) reflects its investment in capital assets (e.g. land, buildings, mobile equipment, furniture and equipment, and leased property under capital leases, less any related debt used to acquire those assets that is still outstanding). The Commission uses these capital assets to conduct its programs; consequently these assets are not available for future spending.

Gulf States Marine Fisheries Commission
Financial Statements
December 31, 2007

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The following table presents a summary of the Commission's net assets for the year ended December 31, 2007.

Current assets	\$ 239,696
Noncurrent assets	409,971
Total assets	<u>649,667</u>
Current liabilities	41,438
Noncurrent liabilities	50,671
Total liabilities	<u>92,109</u>
Net assets	
Investment in capital assets, net of related debt	282,987
Unrestricted	274,571
Total net assets	<u>\$ 557,558</u>

Changes in net assets – The Commission's total revenues for the year ended December 31, 2007 were \$37,286,254. The total cost of all programs and services was \$37,421,424. The following table represents a summary of the changes in net assets for the year ended December 31, 2007.

Revenues	
Program revenues	\$ 37,249,023
General revenues	37,231
Total revenues	<u>37,286,254</u>
Expenses	
Programs	37,135,131
General and administrative	286,293
Total expenses	<u>37,421,424</u>
(Increase) in net assets	<u>\$ (135,170)</u>

Budgetary Highlights

The Commission establishes its budget to reflect financial conditions such as increases and decreases in operating revenues and expenses, and also to increases, decreases and availability of federal funding for operating and capital needs. As noted in the notes to the financial statements, it is the practice of the Commission to prepare its budget on the modified cash basis of accounting.

Gulf States Marine Fisheries Commission
Financial Statements
December 31, 2007

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Capital Asset Administration

At the end of the current year the Commission had \$351,331, net of accumulated depreciation invested in facilities, equipment and automobiles. This amount reflected a net decrease (including additions, deletions and depreciation deductions) from the prior year of \$94,090.

Section II
Financial Statements

Gulf States Marine Fisheries Commission
Statement of Net Assets - Modified Cash Basis
December 31, 2007

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Assets	Governmental Activities
Current assets	
Cash in bank	\$ 239,696
Noncurrent assets	
Post Employment Health Plan investment account	58,640
Property and equipment, net of accumulated depreciation	351,331
Total noncurrent assets	<u>409,971</u>
Total assets	<u>649,667</u>
Liabilities	
Current liabilities	
DHHS payable	23,223
Section 125 cafeteria plan payable	542
Notes payable, due within one year	17,673
Total current liabilities	<u>41,438</u>
Noncurrent liabilities	
Notes payable, due beyond one year	<u>50,671</u>
Total liabilities	<u>92,109</u>
Net assets	
Investment in general fixed assets, net of related debt	282,987
Unrestricted	274,571
Total net assets	<u>\$ 557,558</u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Activities - Modified Cash Basis
For the Year Ended December 31, 2007

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	<u>Expenses</u>	<u>Charges for Services</u>	<u>Operating Grants and Contributions</u>	<u>Net (Expense) Revenue and Change in Net Assets Governmental Activities</u>
Functions/Programs				
Primary government:				
Programs				
Collection & dissemination of commercial and recreational fisheries information	\$ 5,002,105	\$ -	\$ 5,000,727	\$ (1,378)
Interjurisdictional fisheries management	248,838	-	249,761	923
Coordination of recreational fisheries programs	198,467	-	171,334	(27,133)
Collection & dissemination of fishery - independent data and information	98,116	-	98,970	854
SEAMAP Supplemental	8,566	-	9,324	758
Review and formation of habitat information	47,755	-	49,317	1,562
Study of aquatic nuisances	55,182	-	53,172	(2,010)
Fish and wildlife support services	63,145	-	45,221	(17,924)
Billfish research	300,255	-	299,744	(511)
Louisiana seafood exposition	145,039	-	150,000	4,961
Emergency disaster recovery program	30,910,773	-	30,892,363	(18,410)
Acquaculture planning in the Gulf of Mexico	7,475	-	7,475	-
Other	49,415	-	48,930	(485)
Total	<u>37,135,131</u>	<u>-</u>	<u>37,076,338</u>	<u>(58,793)</u>
General and Administrative				
Local administration	252,242	25,185	112,500	(114,557)
Council activities	34,051	-	35,000	949
Total	<u>286,293</u>	<u>25,185</u>	<u>147,500</u>	<u>(113,608)</u>
Total primary government	<u>\$ 37,421,424</u>	<u>\$ 25,185</u>	<u>\$ 37,223,838</u>	<u>(172,401)</u>
General revenues				
Other income				6,909
Post employment health plan revenue				3,922
Gain (loss) on sale of assets				(947)
Interest income				26,031
Unrealized gain (loss) on investments				1,316
Total general revenues				<u>37,231</u>
Change in net assets				(135,170)
Net assets, beginning				<u>692,728</u>
Net assets, ending				<u>\$ 557,558</u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Assets, Liabilities and Fund Balances-Cash Basis
Governmental Funds
December 31, 2007

	General Fund	Special Revenue Funds			Total Governmental Funds
		RECFIN/ COMFIN Fund	EDRP Fund	Other Funds	
Assets					
Current assets					
Cash in bank	\$ 234,717	\$ -	\$ 4,979	\$ -	\$ 239,696
Noncurrent assets					
PEHP investment account	58,640	-	-	-	58,640
Total assets	<u>\$ 293,357</u>	<u>\$ -</u>	<u>\$ 4,979</u>	<u>\$ -</u>	<u>\$ 298,336</u>
Liabilities					
Current liabilities					
DHHS payable	\$ -	\$ -	\$ 23,223	\$ -	23,223
Section 125 cafeteria plan	542	-	-	-	542
Total liabilities	<u>542</u>	<u>-</u>	<u>23,223</u>	<u>-</u>	<u>23,765</u>
Fund Balances					
Fund balance - reserved for investments	58,640	-	-	-	58,640
Fund balance - unreserved	234,175	-	(18,244)	-	215,931
Total fund balances	<u>292,815</u>	<u>-</u>	<u>(18,244)</u>	<u>-</u>	<u>274,571</u>
Total liabilities and fund balances	<u>\$ 293,357</u>	<u>\$ -</u>	<u>\$ 4,979</u>	<u>\$ -</u>	<u>\$ 298,336</u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Reconciliation of the Governmental Funds Statement of Assets,
Liabilities and Fund Balances - Cash Basis
to the Statement of Net Assets - Modified Cash Basis
December 31, 2007

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Total fund balances - governmental funds	\$ 274,571
Amounts reported for governmental activities in the statement of net assets - modified cash basis are different because:	
Capital assets used in governmental activities are not financial resources and therefore are not reported in the funds, net of accumulated depreciation	351,331
Notes payable are not due and payable in the current period expenditures and therefore are not reported in the funds	<u>(68,344)</u>
Total net assets - governmental activities	<u><u>\$ 557,558</u></u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission

Statement of Revenues, Expenditures and Changes in Fund Balances - Cash Basis

Governmental Funds

For the Year Ended December 31, 2007

	Special Revenue Funds				Total Governmental Funds
	General Fund	RECFIN/ COMFIN Fund	EDRP Fund	Other Funds	
Revenues:					
Member state appropriation	\$ 112,500	\$ -	\$ -	\$ -	\$ 112,500
Other income	6,909	-	-	-	6,909
Interest income	26,031	-	-	-	26,031
Rent income	7,200	-	-	-	7,200
Lease income	930	-	-	-	930
Post employment health plan revenue	3,922	-	-	-	3,922
Grant income	-	5,000,727	30,892,363	1,218,248	37,111,338
Registration fees	17,985	-	-	-	17,985
Unrealized gain on investments	1,316	-	-	-	1,316
Totals	<u>176,793</u>	<u>5,000,727</u>	<u>30,892,363</u>	<u>1,218,248</u>	<u>37,288,131</u>
Expenditures					
Personal services and benefits	86,713	474,222	120,919	507,413	1,189,267
Professional services	1,285	4,202,775	30,730,455	488,861	35,423,376
Other purchased services	58,195	281,873	50,602	222,760	613,430
Supplies and materials	7,005	43,235	8,797	38,201	97,238
Debt service:					
Principal	20,401	-	-	5,855	26,256
Interest	5,900	-	-	-	5,900
Totals	<u>179,499</u>	<u>5,002,105</u>	<u>30,910,773</u>	<u>1,263,090</u>	<u>37,355,467</u>
Excess (deficiency) of revenues over (under) expenditures	<u>(2,706)</u>	<u>(1,378)</u>	<u>(18,410)</u>	<u>(44,842)</u>	<u>(67,336)</u>
Other financing sources (uses)					
Interfund loans	(51,347)	1,378	166	49,803	-
Operating transfers in	4,961	-	-	-	4,961
Operating transfers out	-	-	-	(4,961)	(4,961)
Total other financing sources (uses)	<u>(46,386)</u>	<u>1,378</u>	<u>166</u>	<u>44,842</u>	<u>-</u>
Net change in fund balances	(49,092)	-	(18,244)	-	(67,336)
Fund balance - beginning	341,907	-	-	-	341,907
Fund balance - ending	<u>\$ 292,815</u>	<u>\$ -</u>	<u>\$ (18,244)</u>	<u>\$ -</u>	<u>\$ 274,571</u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Reconciliation of the Governmental Funds Statement of Revenues,
Expenditures and Changes in Fund Balances - Cash Basis
To the Statement of Activities - Modified Cash Basis
For the Year Ended December 31, 2007

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Net changes in governmental fund balances \$ (67,336)

Amounts reported in the statement of activities are different because:

Governmental funds report capital outlays as expenditures. However, the statement of activities - modified cash basis reports depreciation to allocate those expenditures over the life of the assets. There were no capital assets purchased and depreciation expense amounted to \$93,143. (93,143)

Payment of principal on long-term liabilities is reported as an expenditure in the governmental funds, but the payment reduces long-term liabilities in the statement of net assets - modified cash basis. 26,256

Proceeds from the sale of assets are reported in the governmental funds as revenues, but only the gain or loss on the sale of assets is reported in the statement of activities - modified cash basis. (947)

Change in net assets of governmental activities \$ (135,170)

See Notes to Financial Statements.

Note A – Summary of Significant Accounting Policies

Operations – The Gulf States Marine Fisheries Commission, was formally created, with the consent of the 81st Congress of the United States, granted by Public Law 66 and approved May 19, 1949. Congress authorized an interstate compact relating to the better utilization of the fisheries of the Gulf of Mexico. Parties to the agreement are the states of Alabama, Florida, Louisiana, Mississippi and Texas. The Commission's office is centrally located in Ocean Springs, Mississippi.

The Commission receives and expends such sums of money as shall from time to time be appropriated for its use by the participating governing authorities, and makes application for and receives and expends funds available under appropriated Federal Programs. The Commission may also receive and expend funds from any other sources not "prohibited by law".

The financial reporting entity – Gulf States Marine Fisheries Commission is a quasi-governmental corporation governed by 15 member board. The Commission has no reportable component units.

Basis of accounting – The accompanying financial statements have been prepared on the modified cash basis of accounting. That basis differs from generally accepted accounting principles because the Commission has not recognized balances, and the related effects on earnings, of grant receivables from third party agencies and of accounts payable to vendors.

The Commission reports the following major governmental funds:

General Fund – This is the Commission's primary operating fund. It accounts for all financial resources of the Commission, except those required to be accounted for in another fund.

RECFIN/COMFIN Fund – This is the fund that is the Commission's program to collect, manage, and disseminate statistical data and information on the commercial and recreational fisheries of the Gulf of Mexico.

Emergency Disaster Recovery Program (EDRP) Fund – This is a program fund through which Federal Fisheries Disaster funds appropriated by Congress are distributed to assist the Gulf States in the restoration of damaged marine resources and to provide assistance to impacted fishermen.

All other governmental funds not meeting the criteria established for major funds are presented as other governmental funds.

Additionally, the Commission reports the following non-major governmental fund types:

Special Revenue Funds – Special revenue funds are used to account for the proceeds of specific revenue sources that are restricted for specific projects or programs. The funds' principal revenue sources are grants and contracts from various federal and member state agencies.

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

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Basis of Presentation – The Commission’s basic financial statement consists of government-wide statements, including a statement of net assets and a statement of activities, and fund financial statements, which provide a more detailed level of financial information.

Government-wide Financial Statements:

The Statement of Net Assets and Statement of Activities display information about the Commission as a whole. They include all funds of the reporting entity. Governmental activities generally are financed through taxes, intergovernmental revenues and other nonexchange revenues.

The Statement of Net Assets presents the financial condition of the governmental activities of the Commission at year-end. The Government-wide Statement of Activities presents a comparison between direct expenses and program revenues for each function or program of the Commission’s governmental activities. Direct expenses are those that are specifically associated with a service, program or department and therefore clearly identifiable to a particular function. Program revenues include charges paid by the recipient of the goods or services offered by the program and grants and contributions that are restricted to meeting the operational or capital requirements of a particular program. Revenues, which are not classified as program revenues, are presented as general revenues of the Commission with certain limited exceptions. The comparison of direct expenses with program revenue identifies the extent to which each governmental function is self-financing or draws from the general revenues of the Commission.

Fund Financial Statements:

Fund financial statements of the Commission are organized into funds, each of which is considered to be separate accounting entities. Each fund is accounted for by providing a separate set of self-balancing accounts that constitute its assets, liabilities, fund equity, revenues and expenditures/expenses. Funds are organized into one major category: governmental. An emphasis is placed on major funds within the governmental category.

Fixed assets – Fixed assets are recorded at actual cost. Contributed assets are reported at the estimated fair value at the time received. The Commission has adopted a policy of capitalizing assets with an acquisition cost of \$5,000 or more. Depreciation is computed on the straight-line method over the estimated useful lives of the underlying assets.

Investments – Investments in equity securities with readily determinable fair values and all investments in debt securities are measured at their fair market value in the Statement of Net Assets–Modified Cash Basis. The unrealized gain or loss on investments is reflected in the Statement of Activities–Modified Cash Basis.

Income taxes – The Commission is exempt from income taxes as a governmental entity and is classified by the Internal Revenue Service as a governmental organization.

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

Long-term liabilities – Long-term liabilities are the unmatured principal of notes or other forms of noncurrent or long-term general obligation indebtedness. Long-term liabilities are not limited to liabilities from debt issuances, but may also include liabilities on lease-purchase agreements and other commitments. Long-term liabilities should not be reported as liabilities in governmental funds; but should be reported in the governmental activities column in the government-wide Statement of Net Assets.

Equity Classifications

Government-wide Financial Statements:

Equity is classified as net assets and displayed in three components:

1. Invested in capital assets, net of related debt – Consists of capital assets including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes or other borrowings that are attributable to the acquisition, constructions or improvement of those assets.
2. Restricted net assets – Consists of net assets with constraints placed on the use either by (1) external groups such as creditors, grantors, contributors, or laws or regulations of other governments; or (2) law through constitutional provisions or enabling legislation.
3. Unrestricted net assets – All other net assets that do not meet the definition of “restricted” or “invested in capital assets, net of related debt.”

Fund Financial Statements:

Governmental fund equity is classified as fund balance. Fund balance is further classified as reserved and unreserved, with unreserved classified as designated and undesignated.

Estimates – The preparation of financial statements in conformity with the modified cash basis of accounting requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Note B – Concentration of Credit Risk

The Commission has maintained bank accounts at one financial institution. The account balances at December 31, 2007 may be shown as follows:

<u>Description</u>	<u>Carrying Amount</u>	<u>Bank Balance</u>
Regular accounts	<u>\$ 239,671</u>	<u>\$ 336,467</u>

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

The bank balances at December 31, 2007 are categorized as follows:

Amount insured or collateralized with securities held by the Commission or its agent in the Commission's name	\$ 100,000
Uncollateralized, or held by the pledging financial institution's trust department or agent in the financial institution's name	<u>236,467</u>
Total bank balances	<u>\$ 336,467</u>

Note C – Investments

Investments:

Except for nonparticipating investment contracts and for participating interest-earning investment contracts and money market investments that had a remaining maturity at the time of purchase of one year or less, investments are reported at fair value which is based on quoted market price. Nonparticipating investment contracts such as repurchase agreements and nonnegotiable certificates of deposit are reported at cost. Participating interest-earning investment contracts and money market investments that had a remaining maturity at time of purchase of one year or less are reported at amortized cost.

Investments made by the Commission that are included on the statement of net assets are summarized below. The investments that are represented by specific identifiable investment securities are classified as to credit risk by the categories described below:

Category I – Insured or registered or for which the securities are held by the Commission or its agent in the Commission's name.

Category 2 – Uninsured and unregistered for which the securities are held by the broker or dealer's trust department or agent in the Commission's name.

Category 3 – Uninsured and unregistered for which the securities are held by the broker or dealer, or by its trust department or agent hut not in the Commission's name.

Investment Type	Category			Reported Amount	Fair Value
	1	2	3		
Van Kampen Equity & Income Fund Cl. A, 5,448.119 shares		X		\$ 48,161	\$ 48,161
Federal Home Loan Mortgage Bond, due 8/15/22, 5.5%		X		4,981	4,981
Tax-Free Money Market Fund		X		<u>5,498</u>	<u>5,498</u>
Totals				<u>\$ 58,640</u>	<u>\$ 58,640</u>

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

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Note D – Property, Plant and Equipment

The Commission's land, depreciable property and equipment may be stated as follows:

	Balance 12/31/06	Additions	Deletions	Balance 12/31/07
Restricted				
Vehicles	\$ 84,670	\$ -	\$ -	\$ 84,670
Office equipment	1,096,257		321,835	774,422
Totals	1,180,927	-	321,835	859,092
 Unrestricted				
Land	20,000			20,000
Buildings	182,817			182,817
Office equipment	81,630		22,003	59,627
Totals	284,447	-	22,003	262,444
 Less accumulated depreciation				
Restricted	912,114	82,353	320,889	673,578
Unrestricted	107,839	10,791	22,003	96,627
Totals	1,019,953	93,144	342,892	770,205
 Governmental activities				
Net property and equipment:				
Restricted	268,813	(82,353)	946	185,514
Unrestricted	176,608	(10,791)	-	165,817
Totals	\$ 445,421	\$ (93,144)	\$ 946	\$ 351,331

Note E – Notes Payable

During a prior year the Commission acquired the building that it had previously been renting. This acquisition was financed in part with a loan from Hancock Bank. On February 18, 2007 the Commission refinanced the loan with Hancock Bank. Details of the refinancing are as follows:

Refinanced amount	\$ 59,689
Amount outstanding	\$ 46,729
Interest rate	6.875%
Payment terms	59 monthly payments of \$692, plus 1 of remaining balance
Collateral	Land and building at 2404 Government St. Ocean Springs, MS

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

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During 2004, the Commission acquired a new copy machine under a lease/purchase agreement. The financing details are as follows:

Cost of copier	\$ 30,652
Amount outstanding	\$ 10,425
Interest rate	7.5%
Payment terms	60 monthly payments of \$614
Collateral	Xerox copier
Purchase option	Ownership at end of lease

During the prior year, the Commission acquired a vehicle. The financing details are as follows:

Original loan amount	\$ 18,480
Amount outstanding	\$ 11,189
Interest rate	6.30%
Payment terms	36 monthly payments of \$565
Collateral	2007 GMC Sierra

	Beginning 01/01/07	Additions	Deletions	Ending 12/31/07	Amounts Due Within One Year
Governmental activities					
Notes	\$ 77,846	\$	\$ 19,928	\$ 57,918	\$ 10,853
Capital leases	16,754		6,329	10,425	6,820
Total governmental activities	<u>\$ 94,600</u>	<u>\$</u>	<u>\$ 26,257</u>	<u>\$ 68,343</u>	<u>\$ 17,673</u>

The annual requirements to pay principal and interest on the notes and capital leases outstanding at December 31, 2007 follow:

December 31,	Governmental Activities			
	Notes		Capital Leases	
	Principal	Interest	Principal	Interest
2008	\$ 10,853	\$ 4,241	\$ 6,820	\$ 551
2009	9,850	3,519	3,605	80
2010	5,269	3,040		
2011	5,642	2,666		
2012	26,304	406		
Totals	<u>\$ 57,918</u>	<u>\$ 13,872</u>	<u>\$ 10,425</u>	<u>\$ 631</u>

Note F – Retirement Plan

The Commission has a tax sheltered annuity plan for all employees that have been employed for at least six (6) months. The Commission contributes seven (7) percent of each eligible employee's base pay with the amounts being fully vested upon payment by the Commission. The total expense for the year ended December 31, 2007 was \$56,878.

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

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Note G – Post Employment Health Benefits

During a prior year the Commission established a post employment health plan for its employees. The plan is available to any employee with at least ten (10) years of service, but less than twenty-five (25) years.

Upon separation from service 50% of the employee's unused sick leave hours are multiplied by 50% of the employee's hourly pay rate at the separation date to determine a value which will be transferred to a medical savings account.

During 2007 one employee separated from service and has qualified for this benefit. The amount payable to a medical savings account on his behalf is \$11,673.

At December 31, 2007 nine (9) employees would qualify for this benefit. Assuming that all nine (9) separated from service at that date, and utilizing their current sick leave hours and rates of pay then the computed value is \$50,167. During the current year the Commission invested \$3,922 to continue funding this benefit. This investment is shown on the Statement of Net Assets – Modified Cash Basis at its current market value of \$58,640.

Any employee with twenty-five (25) years or more of service is provided full health insurance coverage in lieu of the above. This coverage is provided from date of separation until death.

Note H – Risk Management

The Commission is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Commission carries commercial insurance for these risks. Settled claims resulting from these risks have not exceeded insurance coverage in any part of the past three fiscal years.

Section III
Supplemental Information

Gulf States Marine Fisheries Commission

Budgetary Comparison Schedule

For the Year Ended December 31, 2007

	Budget			Actual			Over (Under) Budget
	Operating Fund	Grant Funds	Total	Operating Fund	Grant Funds	Total	
Revenues:							
Member state appropriation	\$ 112,500	\$ -	\$ 112,500	\$ 112,500	\$ -	\$ 112,500	\$ -
Other income			-	6,909		6,909	6,909
Interest income	14,469		14,469	26,031		26,031	11,562
Rent income	7,200		7,200	7,200		7,200	-
Lease income			-	930		930	930
Post employment health plan revenue			-	3,922		3,922	3,922
Grant income		134,214,227	134,214,227		37,111,338	37,111,338	(97,102,889)
Registration fees	12,000		12,000	17,985		17,985	5,985
Transfers in			-	4,961		4,961	4,961
Unrealized gain (loss) on investments			-	1,316		1,316	1,316
Totals	146,169	134,214,227	134,360,396	181,754	37,111,338	37,293,092	(97,067,304)
Personal costs							
Salaries	65,199	801,472	866,671	67,119	799,009	866,128	(543)
Payroll taxes	6,656	62,736	69,392	8,386	58,728	67,114	(2,278)
Health insurance	7,062	184,080	191,142	6,571	188,655	195,226	4,084
Retirement expense	4,784	54,962	59,746	4,635	52,243	56,878	(2,868)
Post employment health plan expense	-	8,532	8,532	-	3,922	3,922	(4,610)
Totals	83,701	1,111,782	1,195,483	86,711	1,102,557	1,189,268	(6,215)
Maintenance/Operations							
Facilities	18,000	7,200	25,200	18,000	7,200	25,200	-
Office supplies	3,700	19,710	23,410	5,784	32,621	38,405	14,995
Postage	650	15,335	15,985	548	15,983	16,531	546
Travel - committee	-	232,075	232,075	200	202,910	203,110	(28,965)
Travel - staff	9,000	47,401	56,401	6,253	68,132	74,385	17,984
Telephone	2,500	35,196	37,696	2,086	31,954	34,040	(3,656)
Office equipment	1,400	18,346	19,746	-	-	-	(19,746)
Copying expense	1,100	28,714	29,814	668	27,892	28,560	(1,254)
Printing expense	300	13,774	14,074	104	7,033	7,137	(6,937)
Meeting costs	11,000	46,577	57,577	11,952	58,687	70,639	13,062
Subscriptions & dues	750	1,272	2,022	1,294	447	1,741	(281)
Automobile expenses	1,400	19,349	20,749	(98)	6,703	6,605	(14,144)
Insurance	3,200	20,751	23,951	3,087	21,382	24,469	518
Maintenance	22,628	131,693	154,321	26,603	145,294	171,897	17,576
Professional expenses	1,300	258,933	260,233	1,285	249,917	251,202	(9,031)
Contractual	-	131,859,369	131,859,369	-	35,172,174	35,172,174	(96,687,195)
Utilities	4,000	13,403	17,403	3,374	12,378	15,752	(1,651)
Janitorial	2,169	8,011	10,180	1,458	6,851	8,309	(1,871)
Courtesies	1,000	-	1,000	1,887	-	1,887	887
Other	-	282,994	282,994	-	-	-	(282,994)
Principal and interest on note	-	-	-	8,301	5,855	14,156	14,156
Transfers out	-	-	-	-	4,961	4,961	4,961
Totals	167,798	134,171,885	134,339,683	179,497	37,180,931	37,360,428	(96,979,255)
Excess of revenues over expens	\$ (21,629)	\$ 42,342	\$ 20,713	\$ 2,257	\$ (69,593)	\$ (67,336)	\$ (88,049)

Gulf States Marine Fisheries Commission
Budgetary Comparison Schedule
For the Year Ended December 31, 2007
(Continued)

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Budgetary Comparison Schedule

(1) Basis of Presentation

The Budgetary Comparison Schedule presents the original adopted budget, the actual data on the cash basis, and variances between the budget and the actual data.

Gulf States Marine Fisheries Commission
Schedule of Expenditures of Federal Awards – Cash Basis
For the Year Ended December 31, 2007

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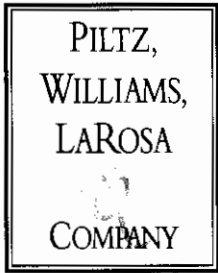
Federal Grantor / Program Title	Catalog of Federal Domestic Assistance	Federal Expenditures
U.S. Department of Interior		
Aquatic Nuisance	15.608	\$ 55,182
Sports Fish Restoration Program	15.605	205,253
Total U. S. Department of Interior		<u>260,435</u>
U.S. Department of Commerce		
Interjurisdictional Fisheries Management Plan	11.407	248,838
Distribution of Bottom Habitat Information in the Gulf of Mexico	11.433	49,415
Recreational Fisheries Information Network (RECFIN) and Commercial Fisheries Information Network (COMFIN)	11.434	5,002,105
Southeast Area Monitoring and Assessment Program (SEAMAP)	11.435	98,116
SEAMAP Supplemental	11.435	8,566
Billfish Research	11.454	300,255
Emergency Disaster Recovery Program	11.454	30,910,773
Habitat Conservation	11.463	47,755
Acquaculture Planning in the Gulf of Mexico	11.472	7,475
Total U. S. Department of Commerce		<u>36,673,298</u>
Total expenditures of federal awards		<u>\$ 36,933,733</u>

Note – This schedule was prepared using the same basis of accounting and the same significant accounting policies, as applicable, used for the financial statements.

See Independent Auditors' Report.

Section IV

Reports on Compliance and Internal Control



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**Report on Internal Control over Financial Reporting
and on Compliance and Other Matters Based
on an Audit of Financial Statements Performed in
Accordance with *Government Auditing Standards***

Board of Commissioners
Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

We have audited the financial statements of the governmental activities, each major fund and aggregate remaining fund information of Gulf States Marine Fisheries Commission as of and for the year ended December 31, 2007, which collectively comprise Gulf States Marine Fisheries Commission's basic financial statements and have issued our report thereon dated July 15, 2008. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered Gulf States Marine Fisheries Commission's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Gulf States Marine Fisheries Commission's internal control over financial reporting.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects Gulf States Marine Fisheries Commission's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of Gulf States Marine Fisheries Commission's financial statements that is more than inconsequential will not be prevented or detected by Gulf States Marine Fisheries Commission's internal control.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by Gulf States Marine Fisheries Commission's internal control.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

Compliance and Other Matters

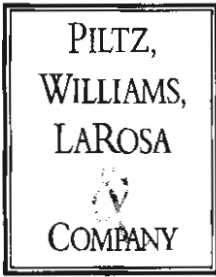
As part of obtaining reasonable assurance about whether Gulf States Marine Fisheries Commission's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information and use of the Commission, management, others within the organization and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Piltz, Williams, Ladd & Co.

Certified Public Accountants

Biloxi, Mississippi
July 15, 2008



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**Report on Compliance with Requirements
Applicable to Each Major Federal Program and Internal
Control over Compliance in Accordance with OMB Circular A-133**

Board of Commissioners
Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

Compliance

We have audited the compliance of Gulf States Marine Fisheries Commission with the types of compliance requirements described in the U.S. Office of Management and Budget (OMB) Circular A-133 *Compliance Supplement* that are applicable to each of its major federal programs for the years ended December 31, 2007. Gulf States Marine Fisheries Commission's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs. Compliance with the requirements of laws, regulations, contracts and grants applicable to each of its major federal programs is the responsibility of Gulf States Marine Fisheries Commission's management. Our responsibility is to express an opinion on Gulf States Marine Fisheries Commission's compliance based on our audit.

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of State, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about Gulf States Marine Fisheries Commission's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion. Our audit does not provide a legal determination on Gulf States Marine Fisheries Commission's compliance with those requirements.

In our opinion, Gulf States Marine Fisheries Commission complied, in all material respects, with the requirements referred to above that are applicable to each of its major federal programs for the years ended December 31, 2007.

Internal Control Over Compliance

The management of Gulf States Marine Fisheries Commission is responsible for establishing and maintaining effective internal control over compliance with the requirements of laws, regulations, contracts, and grants applicable to federal programs. In planning and performing our audit, we considered Gulf States Marine Fisheries Commission's internal control over compliance with the requirements that could have a direct and material effect on a major federal program in order to determine our auditing procedures for the purpose of expressing our opinion on compliance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Gulf States Marine Fisheries Commission's internal control over compliance.

A *control deficiency* in an entity's internal control over compliance exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect noncompliance with a type of compliance requirement of a federal program on a timely basis. A *significant deficiency* is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to administer a federal program such that there is more than a remote likelihood that noncompliance with a type of compliance requirement of a federal program that is more than inconsequential will not be prevented or detected by the entity's internal control.

A *material weakness* is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that material noncompliance with a type of compliance requirement of a federal program will not be prevented or detected by the entity's internal control.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in internal control that might be significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above.

This report is intended solely for the information and use of the Commission, management, others within the organization and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Piltz, Williams, Lohme + Co.

Certified Public Accountants

Biloxi, Mississippi
July 15, 2008

Section V

Other Items

Gulf States Marine Fisheries Commission
Schedule of Findings and Questioned Costs
For the Year Ended December 31, 2007

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Section 1 – Summary of Auditors’ Results

1. An unqualified opinion was issued on the basic financial statements.
2. There were no significant deficiencies in internal control disclosed by the audit of the basic financial statements.
3. The audit did not disclose any noncompliance which is material to the basic financial statements.
4. There were no significant deficiencies in internal control over major federal award programs disclosed during the audit.
5. An unqualified opinion was issued on compliance for major programs.
6. The audit did not disclose any audit findings which are required to be reported under Section __.510(a) of OMB Circular A-133.
7. The major programs were: Recreational Fisheries Information Network and Commercial Fisheries Information Network – 11.434, Billfish Research and Emergency Disaster Recovery Program – 11.454.
8. The dollar threshold used to distinguish between Type A and Type B Programs was \$300,000.
9. The auditee does qualify as a low-risk auditee.

Section 2 – Findings Related to the Financial Statements

None

Section 3 – Findings and Questioned Costs for Federal Awards

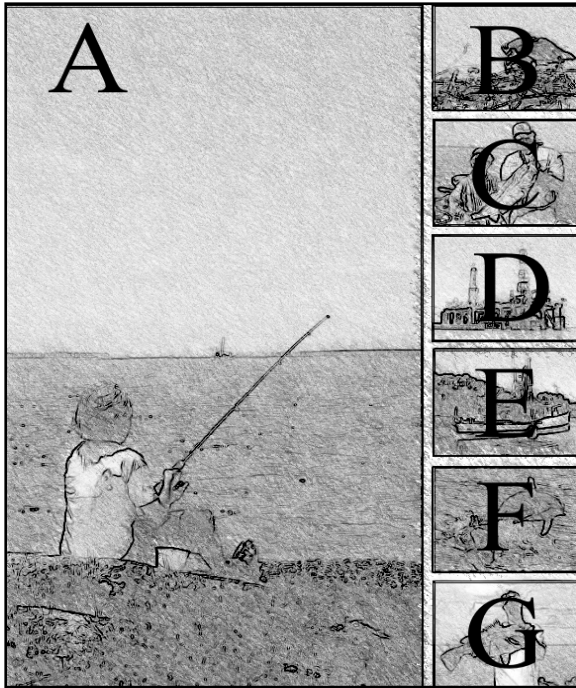
None

Gulf States Marine Fisheries Commission
Summary Schedule of Prior Audit Findings
Year Ended December 31, 2007

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Finding 06-1:

- **Condition** – The Commission was not verifying that entities are not suspended, debarred, or otherwise excluded before entering into contracts under federal awards.
- **Recommendation** – The Commission should check with the Excluded Parties List System before entering into contracts under federal awards.
- **Current Status** – The recommendation was adopted in 2007. No similar findings were noted in the 2007 audit.



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- G. Leonard Maiolatesi



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