

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

For the Year 2006



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-Seventh Annual Report
(2006)

*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.



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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

Acknowledgements

In submitting this Fifty-Seventh 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-seven 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,

Virginia Vail, *Chairman*
Vernon Minton, *Vice Chairman*
Ralph Rayburn, *Second Vice Chairman*
Larry B. Simpson, *Executive Director*

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Commission Roster

Commission Officers

Chairman: Virginia Vail

First Vice Chairman: Vernon Minton

Second Vice Chairman: Ralph Rayburn

Commissioners

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

ALABAMA

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

Gary G. Tanner
Alabama Senate
Theodore, Alabama

Chris Nelson
Bon Secour Fisheries
Bon Secour, Alabama

FLORIDA

Ken Haddad
Florida Fish & Wildlife Fisheries
Commission
Tallahassee, Florida

Nancy Argenziano
Florida Senate
Crystal River, Florida

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

LOUISIANA

Dwight Landreneau
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

Robert L. Cook
Texas Parks & Wildlife Department
Austin, Texas

Gene Seaman
Texas Senate
Austin, Texas

Ralph Rayburn
Texas Sea Grant College Program
College Station, Texas

Staff

Larry B. Simpson, *Executive Director*

Ronald R. Lukens, *Assistant Director*

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 M. Donaldson, 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.....	John Roussel Virginia Vail Vernon Minton William Perret Mike Ray
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	Joseph Smith, 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	Chris Denson, Chairman
TCC Habitat Subcommittee.....	Doug Frugé, Chairman
TCC SEAMAP Subcommittee	Jim Hanifen, Chairman

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

When you consider the tropical events of 2004 in Florida and those in 2005 throughout the Gulf region, you can see why we spend most of our time discussing recovery. And as I said last year, the effort to claw back from the worst natural disasters to have ever hit the United States consumes us both personally and professionally.

Fortunately, help arrived. Thanks to the efforts of hundreds of thousands of volunteers, FEMA, the Red Cross, and numerous 'faith-based' organizations, the citizens of the Gulf Coast *are* rebuilding and making progress. In addition, with the help of the U.S. Congress and NOAA, our Gulf of Mexico fisheries are being rebuilt as well.

This past year, Congress passed an emergency disaster relief funding package that included \$128 million for fisheries restoration. The package includes funding to support restoration of oyster grounds, restoration of shrimp and other fisheries grounds, and cooperative research to restore fisheries:

- At least \$38 million must be spent to rehabilitate oyster grounds and restore the oyster fishery.
- At least \$7 million must be spent on cooperative research to restore Gulf of Mexico fisheries.
- The remaining amount is available to support restoration of shrimp and other fisheries grounds, additional oyster work, and addition cooperative research.

The disaster funding package is being distributed to the States of Texas, Louisiana, Mississippi, Alabama, and Florida. Congress appropriated the funding to the National Marine Fisheries Service, who then determined that it would be most efficient to provide the funding to the GSMFC for administration through a cooperative agreement. During late June and early July 2006, the GSMFC and the States of Texas, Louisiana, Mississippi, Alabama, and Florida, in cooperation with NOAA Headquarters and the Southeast Regional Office, discussed details regarding eligible and non-eligible activities under the cooperative agreement. The States developed proposals for activities to be conducted within their jurisdictions, which were submitted to the GSMFC and incorporated into a regional cooperative agreement, submitted to NOAA officially on July 11, 2006. The cooperative agreement spans five (5)

years, beginning September 1, 2006 and running through August 31, 2011.

The distribution of funds to the states, determined by Congress, is as follows:

Texas	\$ 3,175,000.00 (2.5%)*
Louisiana	\$ 52,916,667.00 (41%)*
Mississippi	\$ 37,041,667.00 (29%)*
Alabama	\$ 29,633,333.00 (23%)*
Florida	\$ 4,233,333.00 (3.5%)*
NOAA Fisheries	\$ 1,000,000.00 (1%)*
TOTAL	\$128,000,000.00

*Percentages are rounded up to equal 100%

As a result of this inflow of disaster assistance, the five Gulf States have been able to assist their displaced fishermen, rebuild and re-establish oyster reefs, identify and remove debris and currently are looking for additional ways to bring back the fishing industry, that is so much a part of the Gulf's economy and identity. It is likely that we will be discussing 'disaster relief' for a long time to come.

Right here at home in Mississippi, we no longer have the historic old homes or family owned restaurants and businesses on the beach. The storm also took much of the harbor infrastructure and many seafood processors. These losses are opening up the way for development. Condominium signs line the beaches now from Henderson Point, near the Bay of St. Louis, to Biloxi Bay. The casinos are rebuilding and expanding as well. What was, no longer is.

The Mississippi coast is losing its quaint old southern charm and quickly becoming another retiree destination. Don't get me wrong, there is a place for 'the new and improved', but for many who've lived here for years, it's a bitter-sweet change. Fisheries and fisheries work will continue, regardless of who lives on the beach, but the new normal will definitely not be the same.

We will be different, but better in most all ways. You can count on it.

EMERGENCY DISASTER RECOVERY PROGRAM

Ralph E. Hode, Fisheries Disaster Program Coordinator

As the Executive Director stated in his report last year, hurricanes Katrina and Rita represented the worst natural disaster to have hit the United States in its recorded history. During the period immediately following the storms, the states bordering the Gulf saw both monumental and historical recovery efforts evolve as they sought to assess damages to the fishery resources and to make plans to put life back to where it was before these storms.

Recovery has been monumental, in that damage assessments were completed within six months and a team effort involving all five Gulf States, the GSMFC, legislative and congressional delegations from each state, NOAA, and the Department of Commerce were successful in petitioning Congress for recovery assistance funding. In July of 2006, President Bush signed into law H.R. 4939, which provided nearly \$128,000,000 over the next five years, to aid in restoring the Gulf of Mexico to pre-storm condition.

Much appreciation is given to Congress for its wisdom and foresight in both recognizing the impact that the storms in 2005 had on the Gulf of Mexico fisheries, and in approving the funding necessary to begin the vital recovery process during the early months following the disaster.

Recovery has been historic in that the grant, as approved, represents the single largest appropriation in the history of the United States for fisheries recovery, and it is the single largest grant ever to be administered through the GSMFC. As such, the recovery program is a testament to the damages that were sustained by the Gulf of Mexico fisheries and to the capabilities of the Commission itself.

Aside from the administrative efforts necessary to see the grant application and cooperative agreements finalized, administration efforts began in September 2006, with the hiring of a Fisheries Disaster Program Coordinator. Visits were made to each of the five Gulf States early in the program, for the purposes of becoming familiar with the principal investigators, program coordinators, as well as, the overall implementation plans.

EDRP OVERVIEW

An ad hoc Emergency Disaster Recovery Program (EDRP) Committee has been established and is scheduled to meet bi-annually at the spring and fall meetings of the GSMFC. The first meeting was at the fall annual meeting in October in New Orleans, where a total of twenty-five participants, including several state directors, principal investigators, and program coordinators were in attendance. The meeting focused primarily on administrative procedures including: general accounting, program management requirements, as well as, quarterly reporting requirements. Each state was given the opportunity to talk about their plans and to address issues that needed to be addressed early in the overall program development. It was generally concluded that these meetings served as an excellent forum for networking and the exchange of ideas and information that could be beneficial to state programs as individual jobs and projects progressed.

Inherent to the bill which authorized funding for the recovery effort, were conditions which required that of the \$128,000,000 appropriated, no less than \$38,000,000 are to be dedicated to Oyster Recovery; and no less than \$7,000,000 were to be dedicated to Cooperative Research. The remainder has been

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

State	Oyster Recovery	Cooperative Research	Shrimp and Shellfish Recovery	State Totals
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
Florida	2,994,700.00	425,033.00	813,600.00	4,233,333.00
Mississippi	15,000,000.00	10,041,667.00	12,000,000.00	37,041,667.00
Alabama	16,133,333.00	5,500,000.00	8,000,000.00	29,633,333.00
Total	\$58,842,943.00	\$21,349,500.00	\$46,827,527.00	\$127,019,970.00
Percentage	46.3%	16.8%	36.8%	100%

approved for other resource recovery, as determined necessary by each of the states. A detailed summary of planned expenditures, by category for each state is included below. Additionally, sub-award recipients were requested to aid in "industry recovery" by utilizing, where practical, displaced fishermen to assist in the recovery effort.

OYSTER PLANS

A combined total of nearly \$50,000,000 has been programmed for oyster rehabilitation, during the five year recovery cycle; with nearly \$23,000,000 of these funds being scheduled for oyster recovery in Louisiana, and another \$15,000,000 in Mississippi.

Projects included the cultivation of existing reefs by local fishermen, through the removal of sediments from covered beds utilizing bagless dredges or other means where practical; the installation of new cultch material where the old materials was destroyed; and the relaying of live oysters by local fishermen for re-seeding purposes in newly cultivated sites. Work involved both public sector and private sector (lease holdings) refurbishment and rehabilitation. Nearly 400,000 acres of oyster areas are scheduled for restoration in one form or another; with nearly 350,000 acres in Louisiana alone.

COOPERATIVE RESEARCH

Nearly \$27,500,000 is scheduled for cooperative research efforts, aimed at stock assessment and the development of recommendations for minimizing the effects of such disasters in the future.

Among the cooperative research projects approved as part of the grant, is an Oyster Larvae Disbursement Study in the Pensacola Bay area. The project intends to examine hydrologic flows and oyster larvae distribution within the bay system, with the intent of developing a model that would predict those areas where oyster spat are likely to settle. Successful modeling, when applied in other bay systems, could be used by other states and fishery agencies to more accurately predict the best locations for new oyster cultch plant sites and subsequent productive reefs.

Other projects include an analysis of the impact on fish larvae as a result of sudden or drastic changes in water temperature, salinity and/or other factors that may be brought on by hurricanes or other natural or man-made events; and, the establishment of new baseline fisheries data through stock assessments involving trip catch and by-catch data, fishing locations, and time and effort reports.

SHRIMP, CRAB, FINFISH AND OTHER SHELL FISH RECOVERY

This segment includes not only the removal of debris from fishing grounds, but also the restoration of destroyed or damaged off-shore and near shore artificial fishing reefs, restoration of critical habitat, mapping of fishing grounds, replacement of critical hydrological monitoring equipment and programs designed to assist in the elimination of aquatic invasive species brought on by the storms. Approximately \$47,000,000 is programmed for recovery work in this segment.

YEAR END STATUS

Because the recovery effort did not officially begin until September 1, there was little expectation of broad recovery before the years end. For the most part, the states utilized the last four months of this year in administrative capacities; further assessing damages, priority planning, developing specifications, interagency agreements, and/or scopes of work for contracts, materials and services; mapping, conducting public meetings, developing fiscal management programs; and, generally putting together plans of action for the coming year. Because Mississippi already had ongoing contracts in place, the MDMR has been able to show some progress in all three segments of the grant program already.

FORECASTED ACTIVITIES

As of the end of 2006, a total of almost \$770,000 has been expended within the Recovery Program; with nearly \$600,000 of this going to Mississippi for oyster restoration effort. All five Gulf States indicated at the fall 2006 GSMFC Annual Meeting that they expected to see significant progress beginning in the spring of 2007, as both the commercial and recreational fisheries activities begin to get back to normal.

SPORT FISH RESTORATION ADMINISTRATION PROGRAM

Ronald R. Lukens, Assistant Director

The Gulf States Marine Fisheries Commission (GSMFC) provided administrative support for "Sport Fish Restoration Administrative Program," FWS Grant Agreement No. GS-96-Segment 9. The GSMFC furnished services, qualified personnel and materials, equipment, and facilities as needed to perform required duties.

During the period covered by this report, the Program Coordinator attended and/or participated in meetings and 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, it is anticipated that these articles and reports will be 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 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.

Fisheries Habitat Activities

General Coordination

In 1996, the U.S. Congress passed significant amendments to the Magnuson-Stevens Fishery Conservation and Management Act, including provisions to identify, describe, enhance, and protect essential fish habitat (EFH). While the Magnuson-Stevens Act establishes federal fishery management policies, fisheries habitat is largely located within state jurisdictional waters, a situation that represents the potential for conflict if there is not close coordination between the federal agencies and the states. Important issues involving the Habitat Program activities include the development of a regional policy on management of submerged aquatic vegetation, a regional policy on management of wetlands, and the development of an annotated bibliography on fishing gear impacts on habitat. This latter document is available on the GSMFC web page. The GSMFC Habitat Subcommittee will be integrally involved in the development and review of the habitat sections of all FMPs being developed by the GSMFC.

During 2006, the Subcommittee focused attention on the issue of freshwater in-flow and the impacts of reduction of freshwater into estuaries. The Subcommittee will be cooperating with the Southeast Aquatic Resources Partnership (SARP) to ensure that freshwater in-flow language is clearly articulated in the Southeast Aquatic Habitat Plan, currently under development. In addition, the Subcommittee will attempt to identify potential impacts to a concomitant reduction in nutrient and sediment flows. The Subcommittee continued discussing the potential impact of liquefied natural gas (LNG) facilities on marine fish stocks in the Gulf of Mexico. The LNG facilities, if permitted as flow-through systems, would use 100 to 200 million gallons of water each day in the regasification process.

Invasive Species Activities

The Program Coordinator continues to work in conjunction with the National Aquatic Nuisance Species Task Force 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 of Mexico Regional Panel on Aquatic Invasive Species (Regional Panel).

The GSMFC has continued to update and manage the invasive species web site for the Regional Panel. A number of updates have been accomplished during this reporting period. 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 button. 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 development of a strategic plan for the Regional Panel.

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 conducted 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. That process should be completed and submitted for consideration of adoption in early 2007.

Associated Meetings

2/1-2/2006	Artificial Reef Special Management Zone
2/15/2006	Mississippi Invasive Species Council/Task Force Meeting
3/2-3/2006	SARP Habitat Committee Meeting
3/7/2006	Louisiana Invasive Species Task Force
3/13-16/2006	Gulf States Marine Fisheries Commission
4/18-20/2006	SARP Meeting
4/27-28/2006	Invasive Species Advisory Committee
5/15-18/2006	International Conference on Aquatic Invasive Species
5/24-26/2006	ANSTF Meeting
6/20-21/2006	Artificial Reef Planning Meeting
7/1-3/2006	Florida Artificial Reef Workshop
8/15-17/2006	South Carolina Aquatic Plant Management Society Conference
9/11-14/2006	Invasive Species Advisory Committee Meeting
9/18-20/2006	Pathways and Prevention Work Group Meeting
10/3-5/2006	Gulf and South Atlantic Regional Panel Meeting
10/23-26/2006	Gulf States Marine Fisheries Commission Meeting
11/6-9/2006	ANSTF Meeting
11/13-16/2006	Joint ASMFC-GSMFC Artificial Reef Meeting

ADMINISTRATION OF THE GULF OF MEXICO REGIONAL PANEL ON AQUATIC INVASIVE SPECIES

Ronald R. Lukens, Assistant Director

The Gulf States Marine Fisheries Commission (GSMFC) provided administrative support for "Administration of the Gulf of Mexico Regional Panel On Aquatic Invasive Species," FWS Grant Agreement No. 98210-5-G691. The GSMFC furnished services, qualified personnel and materials, equipment, and facilities as needed to perform required duties.

During the period covered by this report, the Regional Panel Coordinator attended and/or participated in meetings and 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 Gulf of Mexico Regional Panel on Aquatic Invasive Species

The Gulf States Marine Fisheries Commission provided staff to maintain an active slate of membership on the Gulf of Mexico Regional Panel. The staff facilitated communication among panel members, planned and coordinated meetings of the regional panel, maintained an administrative record of regional panel meetings, provided staff support for development of documents, and was responsible for all fiscal management and tracking of funds supporting regional panel activities.

The following are meetings and other administrative activities accomplished during this reporting period:

- February 15, 2006 Mississippi Invasive Species Task Force meeting
- March 7, 2006 Louisiana Invasive Species Task Force meeting
- April 4-7, 2006 Gulf and South Atlantic Regional Panel meeting
- April 25-28, 2006 Invasive Species Advisory Committee meeting
- May 14-19, 2006 International Conference on Aquatic Invasive Species
- May 23-26, 2006 ANSTF meeting
- August 15-17, 2006 South Carolina Aquatic Plant Management Society conference

- September 11-14, 2006 Invasive Species Advisory Committee meeting
- September 18-20, 2006 Pathways and Prevention Work Group meeting
- October 3-5, 2006 Gulf and South Atlantic Regional Panel meeting
- November 6-9, 2006 ANSTF meeting
- August 3, 2005 Alabama Invasive Species Task Force meeting
- August 23-25, 2005 Invasive Species Risk Assessment Workshop
- October 10-13, 2005 Invasive Species Advisory Committee meeting
- November 1, 2005 Louisiana Invasive Species Task Force meeting
- November 29 – December 1, 2006 Gulf and South Atlantic Regional Panel meeting

Liaison Between Regional Panel and Aquatic Nuisance Species Task Force

The Program Coordinator attended the ANSTF meeting held during this reporting period (see above). The Program Coordinator provided a Regional Panel update at the ANSTF meeting. In addition, the Program Coordinator provided phone, e-mail, and other coordination between the Regional Panel and the ANSTF.

Logistical and Administrative Support for Gulf of Mexico Regional Panel Committees and Sub-groups

The Gulf of Mexico Regional Panel has several working groups directed toward providing advice and guidance and selected subject matter. These groups require meetings and/or telephone conference calls from time to time, and the Gulf States Marine Fisheries Commission provided staff to assist these working 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. During this reporting period, there were no work group meetings or conference calls.

Preparation and Presentation of Annual Report

The Program Coordinator will be compiling information for the Annual Report during the next reporting period.

A TLANTIC BILLFISH RESEARCH PROGRAM

Ronald R. Lukens, Assistant Director

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. 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 projects 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 – 1 project for \$215,080

Three projects were completed this year:

- University of Miami (Project #05): A comprehensive statistical modeling effort to use historic tagging data to elucidate growth characteristics for Atlantic Billfish;

- Texas Parks and Wildlife Department (Project #07): Age and growth, reproduction and genetics of billfish in Gulf of Mexico waters off Texas; and
- University of Miami (Project #17): Evaluating the contribution of spawning and nursery habitats within the Straits of Florida to the EFH of Atlantic billfish.

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 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*

Spring Plankton Survey

The SEAMAP Spring Plankton Survey took place from April 22 to May 29, 2006. One hundred sixty-four stations were sampled from the west Florida shelf to the Louisiana/Texas border. This was the twenty-fifth year for the survey. The objectives of the survey were to collect ichthyoplankton samples for estimates of the abundance and distribution of Atlantic bluefin tuna larvae and collect environmental data at all ichthyoplankton stations.

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

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 11 to May 10, 2006. Video cameras were deployed at 154 sites and the chevron trap at 28 sites.

Summer Shrimp/Groundfish Survey

During the spring of 2006, there was communication between the Shrimp/Groundfish Work Group members to examine the design for the Summer Shrimp/Groundfish Survey and determine the random station locations for each participant.

Objectives of the survey were to:

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

The overall sampling strategy during the 2006 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-fifth year for the survey. The entire survey occurred from June 1 to July 16, 2006 and 332 trawl stations were sampled during the survey. In addition, NMFS and Louisiana vessels collected ichthyoplankton data. Fifty-five stations were sampled with bongo and/or neuston nets, as encountered along cruise tracks.

During the survey, the NOAA Ship OREGON II and R/V TOMMY MUNRO sampled offshore and inshore Gulf waters with 40-ft trawls. Alabama's R/V VERRILL sampled offshore Alabama waters with 40-ft trawls, the R/V PELICAN sampled both Louisiana state waters and offshore waters with 40-ft trawls, and Texas vessels sampled Texas state waters and offshore waters with 20-ft trawls. All vessels took environmental data, including temperature, salinity, 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, 2006

through September 29, 2006. NMFS and Alabama sampled 127 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 5 to December 15, 2006, from off Mobile, Alabama to the U.S.-Mexican border. Vessels sampled waters out to 60 fm, covering 344 trawl stations, in addition to plankton and environmental sampling. The objectives of the survey were to:

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

NMFS 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.

JOINT GSMFC/GMFMC HABITAT PROGRAM

Jeffery K. Rester, Program Coordinator

On January 1, 2006, the data gathering portion of the Commission's Bottom Mapping Project began. The Bottom Mapping Project is a MARFIN funded grant to collect information on bottom habitats in the Gulf of Mexico. The main goal of the project is to develop a user friendly, interactive system that identifies, describes, and displays resources characterizing the seabed habitat of the Gulf of Mexico. The database is being created from the recovery, interpretation, and integration of existing data for this region. A project priority will be in identifying hardbottom and coral reef areas within the Gulf of Mexico. Such an integrated database does not presently exist and should prove immensely valuable to a wide range of users. The information will prove to be critical for regional management decisions related to: recovery of over-exploited fisheries; identification, description, and conservation of unique habitats, including deep-water coral communities and Essential Fish Habitat (EFH); designation of Marine Protected Areas; locating appropriate cable routes; and exploration for mineral and hydrocarbon resources. The Bottom Mapping Committee met on in June, 2006. Agenda items included a status report on the project from the contractor, demonstrating the database querying capability, prioritizing identified and potential data sources, identifying other potential data sources, and discussing other current Gulf of Mexico habitat characterization projects and potential chances to partner with them.

During 2006, the Habitat Program continued reviewing 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.

The Council's Texas Habitat Protection Advisory Panel met in September. The AP discussed the status of the Sabine-Neches Waterway Deepening Project, the Texas Artificial Reef Program's public reefing initiative, deepening of the Matagorda Ship Channel,

dredging associated with the Calhoun LNG facility in Lavaca Bay, the Bahia Grande restoration, the Beacon Port LNG facility, and the Council's Ecosystem Management Plan.

The Council's Louisiana/Mississippi Habitat Protection Advisory Panel met in October. The AP discussed the Port of Iberia channel deepening project, deauthorization of the Mississippi River Gulf Outlet, the Louisiana Coastal Protection and Restoration Plan, the Coastal Impact Assessment Program, status of the Port of Pascagoula dredged material management plan, the Mississippi Coastal Improvements Plan, the Donaldsonville to the Gulf hurricane protection project, the proposed deepening of the Atchafalaya River Ship Channel, the Morganza to the Gulf hurricane protection project, and the Council's Ecosystem Management Plan.

Other work included a juvenile red snapper EFH project for the Council and developing siting criteria and aquaculture zones for offshore aquaculture facilities in the Gulf of Mexico. The juvenile red snapper EFH project included a literature search and also an exploration of SEAMAP trawl data. The Council is looking to identify potential high concentration areas of juvenile red snapper for potential time/area closures from shrimp trawling. Identified areas included Freeport Rocks and Sabine Bank off Texas and areas off the mouth of Mobile Bay. This option to reduce red snapper bycatch will be examined under Shrimp Amendment 15. The aquaculture siting criteria project involved literature searches along with creating a geographic information system (GIS) for identifying potential offshore aquaculture zones in the Gulf of Mexico. The main criteria used to establish the zones were depth, environmental parameters such as temperature and salinity, current speed, and substrate type.

INTERJURISDICTIONAL FISHERIES (IJF) MANAGEMENT PROGRAM

Steven J. VanderKooy, Program Coordinator

The beginning of 2006 was still focused on fishery effects as a result of the 2005 hurricanes. The Commercial/Recreational Fisheries Advisory Panel, the Menhaden Advisory Committee, and the Crab Subcommittee addressed some of their concerns related to their respective fisheries, data collection, and research at their meetings in March, but by October, they had returned to pre-storm modes of operation.

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 57th Annual Meeting.

During 2006, the IJF Program Coordinator was Mr. Steven J. VanderKooy and the IJF Staff Assistants were Mrs. Cynthia B. Yocom, Ms. Sandy Shanks, and 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.

Task force and committee travel was coordinated and supported through the IJF Program and included the Crab Subcommittee, the Derelict Trap TTF, the Habitat Subcommittee, the Menhaden Advisory Committee, the Commercial/Recreational Fisheries Advisory Panel, the Oyster Technical Task Force, and the Law Enforcement Committee.

The Crab Subcommittee continued to work on derelict trap programs around the Gulf and add to the materials in the Derelict Trap Task Force's guidelines document. None of the states held public derelict trap cleanups in 2006, as much of the agencies time was still taken up with recovery.

The Oyster TTF is in the early stages of drafting for the revision to the Commission's 1991 Oyster FMP. Since it is such an extensive revision, it is like starting over with a brand new species. Considerable changes have occurred since completion of the original, related to ISSC issues, genetics, and of course, disaster recovery. The TTF anticipated having a final draft sometime near the end of this year, but funding issues within NOAA have delayed most of the Commission's programmatic activity.

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 and subsequent enforcement activity including coordinated "high-contact" events, joint enforcement agreements, and regional training opportunities.

The otolith manual, *A Practical Handbook for Determining the Ages of Gulf of Mexico Fishes*, continues to be distributed local, nationally, and internationally. The revision was initiated in early 2005, but was derailed by the 2005 storms. In an effort to coordinate the FIN biological sampling activities in the Gulf, staff is working on the addition of red grouper, gag grouper, gray snapper, and vermilion snapper in 2006. Minor technique updates have been provided previously and will be added to the manual. The revision is intended to include the east coast, through the participation the ASMFC in the process. The Georgia DNR has provided materials for inclusion in the techniques portion of the manual making it officially bicoastal.

Program administration in 2005 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.

The GSMFC approved the revision to the Striped Bass FMP in March 2006. It was printed over the summer and the FMP was made available to the public in the fall. Electronic copies of the FMP were also generated and are included with the rest of the

GSMFC's 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 GSMFC publications and programmatic reprints and support literature into the ProCite database, bringing the total number of references in the GSMFC collection to over 18,000. 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 sheephead, 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. This brings the total number of scanned reprints and Commission documents at well over 9,000. The IJF, Fishing Impacts, and Artificial Reef databases are searchable from the GSMFC website and provides keywords and complete abstracts, when available. In addition, the Gulf Coast Research Laboratory's (GCRL) Gunter Library reprint collection is available through the GSMFC website. That collection is no longer available through the GCRL Library website, so GSMFC agreed to host the database along with its own collections. GCRL continues to update and add to their collection, even though they lost many reprints in Hurricane Katrina. Since the 2005 storms, a number of state and federal agency personnel from the coast have requested CDs and DVDs of reprints that they lost in their own reprint collections. 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

INTRODUCTION

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 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 2005 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. Future activities of the FIN Committee are outlined in Table 1.

COMMITTEE ACTIVITIES

FIN Committee

The major FIN meeting was held in June 2006. The major issues discussed during these meetings included:

- Identification and continuation of tasks to be addressed in 2006 and instruction to Administrative and Geographic Subcommittees and the Biological/Environmental, Data Collection Plan and ad hoc work groups to either begin or continue work on these tasks;
- Development of the 2007 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 2006;
- 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 2007;
- 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 RecFIN (SE) Biological/Environmental Work Group met (via conference call) in February and March 2006 to develop sampling protocols for highly migratory species in the Gulf of Mexico;
- The Marine Recreational Fisheries Statistics Survey data review meetings were held in March, June and October to discuss the RDD and Intercept Surveys for the Gulf Region, sampler performance activities, scanning technologies for data entry, presentation of at-sea head boat sampling activities, conducting economic add-on expenditure survey, adding questions regarding protected species

interactions, review and comparison of at-sea and logbook head boat data, collecting of latitude and longitude data for recreational fishing sites, issues regarding red groupers estimates, review of wave report fish tables and estimate tables and review of Gulf States For-Hire Telephone Survey;

- The Gulf of Mexico Geographic Subcommittee meeting in March and October 2006 to discuss various issues including status of biological sampling activities, review of compilation of issues regarding vessel information, status of compilation of recreational fishing licenses and license frame pilot survey, review of white paper regarding changes in TIP, discussion of price/pound issue, development of multi-year cooperative agreement for FIN, review of FIN confidential user ID request form, red snapper IFQ/trip ticket issues, InPort metadata project, monitoring of non-native species and various State/Federal Reports;
- The Otolith Processors Training Workshop was held in May 2006 to conduct an otolith readings and comparison exercise for red snapper, greater amberjack, king mackerel and flounders as well as discuss the red snapper, flounder and king mackerel reference sets, developing reference sets for other species, overview of FIN biological sampling activities, presentation of greater amberjack processing and analysis issues, coordination of ageing centers, status of Otolith Manual Revision, processing status of otoliths collected in 2002 – 2005;
- A meeting to discuss the Texas trip ticket program was held in May 2006 to discuss full implementation of the program, data loading schedules and other issues;
- The FIN Data Collection Plan Work Group met in May 2006 to review of 2005 and 2006 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, development of 2006 FIN Data Collection Plan document;
- The State/Federal Fisheries Management Committee met in August 2006 to discuss the finalization of activities for funding for the 2007 FIN cooperative agreement;
- The FIN Administrative Subcommittee met (via conference call) in August 2006 to finalize plans for the upcoming FIN external program review;
- The FIN external program review was conducted in November 2006 to evaluate the FIN's success in meeting the data collection and management

needs in the Southeast Region and determine the effectiveness of the FIN program in meeting its stated goals, objectives and mission.

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. And 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.
- Collection of Detailed Effort Data for the Louisiana Blue Crab Fishery - This task will provide funding for collection of detailed effort (multiply gears/areas fished) from the commercial blue crab fishery in Louisiana. This activity will be used to test the methodology (developed by FIN) for collecting detailed effort from commercial fisheries. Detailed effort is not collected via the trip ticket programs so alternate methods need to be developed to compile this information. As additional funds become available, this activity will be expanded to cover other fisheries and other states. This is a new activity.

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 2006 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. 2006. *2007 Operations Plan for Fisheries Information Network (FIN)*. No. 139 Gulf States Marine Fisheries Commission, Ocean Springs. 26 pp + appendix.
- FIN Committee. 2006. *Annual Report of the Fisheries Information Network for the Southeastern United States (FIN) January 1, 2005 - December 31, 2005*. No. 138 Gulf States Marine Fisheries Commission, Ocean Springs. 17 pp + appendices.
- FIN articles in the GSMFC newsletters.
- 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.

MARINE RESOURCES

The 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 56 employees of the Administrative, Enforcement, and Fisheries Sections during fiscal year 2006.

Significant Accomplishments

An experimental oyster dredging harvest was continued in Portersville Bay in the winter of 2006. The success of this effort led to the opening of additional reefs in Mobile Bay. There were 1,068 trips made to Portersville Bay reefs from October 2005-January 2006, 54 trips to mid-bay oyster areas in the summer of 2006, and 258 trips made to Buoy reef in the summer of 2006. The mid-bay and Buoy reef are areas that have been utilized sparingly by the tonging fishery in recent years.

The Alabama Marine Resources Division continues a joint venture with Mobile Bay National Estuary Program (NEP) to expand a volunteer monitoring program, CrabWatch. CrabWatch is an effort to collect capture data from the recreational crab fishery and incidentally monitor for invasive species. Currently, 37 volunteers are participating in this program collecting length, sex, and mortality data for individual crabs. Identification and enumeration of bycatch is also compiled. Data on invasive aquatic nuciense species is verified by MRD staff. All volunteer data is submitted to NEP for synthesis. MRD provides technical support for species identification and reviews data for trends.

Enforcement officers continued to improve and expand the Coastwatch Program by training citizens to recognize and report violations of saltwater fishing laws and regulations. Information from Coastwatch members has been valuable in enforcement patrol planning, 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 2005 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 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 MRD enforcement section received \$264,010 as part of the agreement. The money was used to purchase one offshore vessel, and surveillance equipment that will be strategically located in coastal Alabama. Additionally, it provided funding to increase patrol hours for MRD officers.

A pumping system and pipeline that extends from the Gulf of Mexico at the Gulf State Park Pier to the CPMC was destroyed by Hurricane Ivan and has not been rebuilt. As a result, the lack of large quantities of high salinity water severely limited the production of red snapper larvae.

The seventh 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.

MRD hosted three youth fishing days at Claude Peteet Mariculture Center in 2006. A total of 31 children 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 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 which included red snapper brood stock and juveniles, injection and algae rooms. Approximately 500 juvenile red drum 12-14" were donated by Auburn University for the purpose of restocking the pond at CPMC that is used in the public outreach program that enables children to be exposed to a fishing experience.

During 2006, AMRD staff participated in four 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 our children's art section. The events included the four day Mobile Boat Show, the Department's Expo at Oak Mountain State Park, a one day Conservation Expo at Historic Blakely State Park, and the one day Conservation Bird Festival at Fairhope.

Significant Problems and Solutions

Hurricanes Ivan (September 2004) and Katrina (September 2005) caused serious disruptions of services and unavoidable changes to Division plans throughout FY 2005. Boating access facilities and inshore reefs suffered greatly from both storms, and the saltwater pipeline for hatchery work has yet to be repaired from Ivan. FEMA and support sections of DCNR have been very helpful during this difficult time, and continue to be so. It will still take some time yet to repair damages from the storms; these repairs continue to decrease available state funds (FEMA match) which had been planned for other productive uses and services.

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. It is estimated that it will take two to three more years to rebuild.

There is a need for authority to allow offenses committed in the Gulf of Mexico outside of the state's territorial waters to be heard in state district court. This could be accomplished by amending regulation 9-12-4.

There currently is no way to track the recreational effort expended against the marine resources with the use of gig, castnet, recreational crab traps, or spearfishing. These fishing gears need to be added to the recreational fishing license.

At present, commercial fishermen can not legally sell fish caught in cast nets or with gigs, because of a lack

of a commercial license for this activity. A commercial license should be established for these activities.

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 employee. Offices are maintained at Dauphin Island, and Gulf Shores.

Accomplishments

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 the 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 2005 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 MRD enforcement section received \$264,010 as part of the agreement. The money was used to purchase one offshore vessel, and surveillance equipment that will be strategically located in coastal Alabama. Additionally, it provided funding to increase patrol hours for MRD officers.

The 2006 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.

The success of the electronic trip ticket computer program continues to grow, currently 28 Alabama seafood dealers are actively using this program. These dealers contribute substantial amounts of 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 2006, AMRD staff participated in four 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 our children's art section. The events included the four day Mobile Boat Show, the Department's Expo at Oak Mountain State Park, a one day Conservation Expo at Historic Blakely State Park, and the one day Conservation Bird Festival at Fairhope.

MRD hosted three youth fishing days at Claude Peteet Mariculture Center in 2006. A total of 31 children 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 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, which included red snapper brood stock and juveniles, injection and algae rooms. Approximately 500 juvenile red drum 12-14" were donated by Auburn University for the purpose of restocking the pond at CPMC that is used in the public outreach program that enables children to be exposed to a fishing experience.

Renovation of the Boggy Point Boat Ramp were completed in 2006. Repairs have been made to ramps damaged by Hurricane Ivan and repairs will be completed to those damaged by Hurricane Katrina.

Future Plans

Plans are in place to continue work at the Pier Street ramp in Fairhope during the next fiscal year with the addition of a breakwater.

The Division plans to continue development of the inshore artificial reef system particularly in Baldwin County. Demolition of the Gulf State Park Lodge and hotel facilities will provide up to 20,000 tons of clean concrete rubble for the reef effort.

Repairs are planned for the Cotton Bayou boating access facility in Orange Beach. The aging parking lot will be expanded and repaved.

Attempts will be made to extend the jurisdiction of 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 11,018.5 hours of boat and shore patrol, 6,272 boat checks, 1,211 seafood shop inspections, 10,663 recreational

fisherman checks, and issued 1,502 citations and warnings for illegal activities. Twenty-four percent (359) of the citations and warnings were for violations of recreational fishing laws and regulations. Twenty-five percent (379) of the citations and warnings issued were for violations of commercial fishing laws and regulations. Officers also issued citations and warnings for 455 violations of boating safety laws and regulations, 89 wildlife and freshwater fisheries, and 220 citations for other state and federal laws and regulations. A total of 15,672.5 hours were spent on administrative duties, court attendance, training, and equipment maintenance. Officers worked 2,998 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 have 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.

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Enforcement officers assisted with the relief efforts after hurricane Katrina severely damaged the Alabama Coastal areas. Marine Resources Enforcement officers rescued 32 people in Bayou La

Batre during the height of the storm. Marine Resources Enforcement officers assisted police departments in Mobile County by providing additional security to prevent looting, assisted with the distribution of food, water, and other supplies, provided manpower for check points, provided marine security and transport, and provided enforcement manpower to assist with additional enforcement requirements.

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 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.

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, thirteen Biologist Aides I/II's, and two temporary laborers.

Accomplishments

The seventh 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.

The Alabama Marine Resources Division entered a joint venture with Mobile Bay National Estuary Program (NEP) to launch a new volunteer monitoring program, CrabWatch. CrabWatch is an effort to collect capture data from the recreational crab fishery and incidentally monitor for invasive species. Currently, 37 volunteers are participating in this program collecting length, sex and mortality data for individual crabs. Identification and enumeration of bycatch is also compiled; data on invasive aquatic nuisance species is verified by AMRD staff. All volunteer data is submitted to NEP for synthesis. AMRD provides technical support for species identification and reviews data for trends.

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 the end of 2006.

One hundred four (104) new concrete and steel pyramid reefs were deployed in a grid fashion offshore in Alabama's reef areas. This brings the total deployment of these specially fabricated

modules to 451. 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. Material shortages due to the storms protracted the contract effort. Another 125 modules will be deployed in early 2006.

The initial effort to create new inshore fishery habitat in south Baldwin County was undertaken. Hurricane IVAN destroyed the Gulf State Park Lodge, and from the demolition has been made available for reefing. The pool deck and seawall were in the way of the beach renourishment project, so it was removed and used to start the Bayou St. John Reef in Orange Beach. The clean concrete slabs were placed in the southwestern third of the nearly 6-acre reef. The reef will be completed as the rest of the lodge comes down. Signs marking reef locations that were destroyed by the Hurricanes have been replaced.

During the year, 841 fisheries assessment samples were taken. This data is part of a long-term data base that lets managers review the populations of lower trophic level species to detect any changes before they reach the recreational and commercial important species. A total of 50 habitat assessments were performed, and 4,026 fishermen were interviewed during creel surveys.

The success of the electronic trip ticket computer program continues to grow. Currently 28 Alabama seafood dealers are actively using this program. These dealers contribute substantial amounts of 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 28,827 commercial trips reporting over 32.7 million pounds of seafood worth over \$48 million.

Following Hurricane Katrina, AMRD biologists worked with economists with NOAA Fisheries and the University of South Alabama to estimate losses to the seafood industry. The finished report is anticipated to be used to acquire financial aid for Alabama's struggling seafood industry. Losses to Alabama's seafood industry were calculated at \$112,250,000 in direct losses with additional potential losses of \$61,135,000 from defaulted

personal loans.

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Portersville Bay oyster reefs were opened to dredging beginning on October 1, 2005 and remained open through January. Mid-bay oyster areas were opened the last week of May and remained open through mid-June. Buoy reef was opened from mid-June through the end of July. Dredging activity was closely monitored and the dredges allowed were restricted to a certain type. The activity was successful as 14,286.5 sacks were harvested from Portersville Bay on 1,068 trips, 664 sacks were taken from the mid-bay on 54 trips, and 3,028 sacks were harvested from Bouy reef on 258 trips.

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 2006 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 2006, 280 trawls, 66 seines and 77 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. Two hundred twelve net sets were conducted out of a target of 240. The program collected 8,139 finfish, representing 6 freshwater and 46 marine species. An assessment of the striped mullet stocks was submitted to the director.

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.

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.

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 FY2006.

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) primarily from red snapper, greater amberjack, king mackerel, and southern and Gulf flounder caught by commercial and recreational fishermen. Otoliths are used to age fish and important information used to determine the health of fish stocks. A total of 1,853 otoliths were collected in fiscal year 2006.

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 26,242 cubic yards of oyster cultch in the summer and fall of 2006. A total of 8,995 yards were planted in shallow area in Heron Bay. A total of 17,247 cubic yards of cultch were planted along the western edge of Cedar Point reef and along Pass-A-Bar.

Emergency Storm Recovery Funding: Late in the fiscal year, MRD worked with legislators, the Commissioner of Conservation, and neighboring state agencies to secure roughly \$29 million in NOAA fishery recovery funds. The moneys are to be used to clean up and restore oyster and shrimp grounds affected by recent hurricanes, and to monitor the recovery of associated fisheries over the next five years.

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 DI 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 effort with the Red Snapper World Championship organization.

Resurfacing Cotton Bayou boat ramp parking lot.

F 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:

- 1) development and implementation of marine fisheries management policies,
- 2) angler outreach and marine aquatic resource education,
- 3) commercial fisheries assistance,
- 4) the state artificial reef program,
- 5) monitoring compliance with the marine fisheries trip ticket reporting requirements through audits of applicable fish house records,
- 6) implementation of fisheries effort management programs,
- 7) administrative penalty assessments for violations of specified fisheries regulations, and
- 8) issuance of Special Activity Permits.

Highlights of staff efforts in 2006 (i.e., state fiscal year 2005/2006) are summarized below:

Marine Fisheries Management and Policy Development

During 2005/2006 the Florida Fish and Wildlife Conservation Commission (FWC) approved an amendment to the blue crab effort management program that would allow displaced gill netters who did not qualify for the program and fishers who catch blue crabs as bycatch in shrimp trawls and stone crab traps, to participate in the commercial blue crab fishery.

The FWC passed a series of rule amendments regarding length measurement of finfish species, specifically defining total length as the straight line distance from the most forward point of the head with the mouth closed, to the farthest tip of the tail with the tail compressed or squeezed, while the fish is lying on its side. These rule amendments affected ten rules: reef fish, snook, red drum, bonefish, black drum, spotted seatrout, marine life, weakfish, tripletail, and flounder and sheepshead.

The Commission passed a rule to reduce the recreational bag limit of red grouper caught in the Gulf of Mexico, to one fish per person per day to be consistent with the National Marine Fisheries Service

(NMFS) interim rule to reduce the recreational harvest of red grouper and other shallow-water grouper species, which became effective on August 9th, 2005.

The Commission approved a rule amendment to designate Atlantic Angel Shark, Bigeye Sixgill Shark, Bigeye Thresher Shark, Bignose Shark, Caribbean Reef Shark, Dusky Shark, Galapagos Shark, Longfin Mako Shark, Narrowtooth Shark, Night Shark, Sevengill Shark, Sixgill Shark, and Smalltail Shark as prohibited species, thus prohibiting the harvest, landing, possession, purchase, and sale of these species of sharks due to concerns about their vulnerability to depletion.

The FWC concurred with the National Park Service's Special Regulations as related to fishing, including establishment of a Research Natural Area in the Dry Tortugas National Park to compliment the deeper habitats of the adjacent Tortugas Ecological Reserve, protect important reef fish species from harvest, particularly some portion of the spawning population.

The FWC passed a rule amendment to allow oysters to be harvested in Apalachicola Bay for commercial purposes any day of the week during the period beginning on November 16 each year through May 31 of the following year.

The Commission passed a rule amendment to change the lower end of the slot limit for snook to assure that the length measurement method did not negatively impact snook stock abundance.

Artificial Reef Program

During FY 05/06, \$410,480 from a USFWS Federal Aid in Sport Fish Restoration grant, in concert with \$195,477.82 in state saltwater fishing license revenues, provided funding to 11 artificial reef construction, five monitoring and one research project. Eleven local coastal governments, two non-profit organizations and two universities were issued grants for 2005-06. Eleven completed reef construction projects built reefs using designed concrete reef modules, limestone boulders and secondary use concrete materials. The four monitoring projects consisted of fish censuses, deployment verification and mapping projects. The FWC also awarded a special \$59,899 research grant to the University of West Florida for the second 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.

Working closely with the Navy, EPA, and other state and local agencies to complete final planning and environmental cleaning preparations, the aircraft carrier *Oriskany* was successfully deployed on May 17, 2006 as an artificial reef at a site located 22.5 nautical miles southeast of Pensacola Pass at a depth of 212 ft. The *Oriskany* quickly established itself as a popular dive site frequented by dive operations out of both Pensacola and Destin chartered by dive enthusiasts from around the nation and around the world. FWC staff have conducted 3 dive assessments on the *Oriskany* during 2006, documenting the early colonization of the *Oriskany* by pelagic and reef fish species. During December 2006, the FWC completed the first quarter sampling of legal-size red snapper for PCB analysis in compliance with the EPA PCB disposal permit for the *Oriskany*. Sampling will continue quarterly in compliance with the EPA mandated sampling to monitor PCB levels in legal-size red snapper and grey triggerfish. 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.

Also, during 2006, FWC and its local sponsors achieved significant milestones towards 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 has been a Florida Keys Artificial Reef project on the books for at least 6 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). From the outset, the challenge of the local sponsors, Artificial Reefs of the Keys, has been fundraising. However, during December 2006 the local sponsors were successful in securing the final funding support for the project chiefly from several different governmental/municipal sources. The condition of the vessel's hull is such that the vessel is the #2 priority on the list of all James River Inactive Fleet Reserve ships to be removed from the fleet. Now that funding has been secured, the final transfer agreements are being expedited to move the *USS Hoyt Vandenberg* as soon as possible to a shipyard (anticipated January/February 2007) to

begin the cleaning a preparations for artificial reefing during spring/summer 2007.

Marine Fisheries Services

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.

Ten saltwater products wholesale dealers were audited for compliance with the trip ticket reporting requirements and documentation procedures, 25 wholesale dealers who had failed to submit trip ticket reports in the previous 90 days were visited to determine the status of their business and explain the importance of reporting on time and the penalties for not doing so, and 11 projects to assist law enforcement investigations were initiated.

Eighteen informal administrative hearings were conducted for fishers appealing a notice of an administrative penalty assessment or agency action affecting their commercial licensure; 14 of the hearings were requested by individuals who failed to qualify for a Marine Life limited effort permit.

The Division's liaison with commercial fishers and saltwater products dealers produced a newsletter on commercial saltwater fishing regulations, issued several notices regarding proposed regulations, workshops, etc. by e-mail and regular mail.

Angler Outreach and Aquatic Resource Education 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 eight fishing shows across Florida over 28,889 anglers interacted with FWC staff on a wide variety of fisheries related topics and 434,000 went through the building where FWC had a display at the Florida State Fair.

Five 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 16 Kids Fishing Clinics were conducted statewide; 3,723 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 the backdrop for 917 students to learn how to use equipment and sampling methods that FWC biologists utilize to collect data for fisheries management.

Twenty-five teacher workshops were conducted statewide and 304 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 and South Carolina, 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 have 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, evaluate release and sampling strategies for common snook (*Centropomus undecimalis*) in Sarasota Bay and southern Tampa Bay, started in 1996 and 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

During 2005 there were 396 manatee mortalities recorded by FWRI. Weekly and monthly updates of manatee mortality data were posted regularly on the FWRI website for public use. In February 2006, a total of 3,113 manatees were counted by 18 observers on both coasts during the FWC's annual state-wide synoptic survey.

Staff helped to identify and monitor of a pair of right whales seen in the Gulf of Mexico this season. Right whale sightings in the Gulf are thought to be very rare.

DIVISION OF HABITAT AND SPECIES CONSERVATION

Tim Breaux, Director

Imperiled Species Management

The Imperiled Species Management Section (ISM) 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 2005, ISM staff served on the Marine Turtle Grants Committee. This program awarded approximately ~ \$230,000 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 181 applications for conservation activities with marine turtles, including nesting beach surveys (98 permits), stranding and salvage work (110 permits), research (41 permits), public turtle walks (27 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 330 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. Final recommendations for activities in marine turtle nesting and foraging habitat were provided for approximately 150 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, FWC’s Environmental Commenting, Endangered Species and Shorebird Issue Teams, the Marine Turtle Grants Committee, DOT’s Emergency Response Contact List, and the DOT’s Regional Endangered Species Team. Staff coordinated with local officials on lighting inspections in numerous coastal communities.
- In Broward County, FWC initiated a multiagency effort to assist the County in implementing their approved Light Management Plan. In March, FWC staff met with staff from FWS, FDOT, FP&L, Pompano Beach, Deerfield Beach, Fort Lauderdale, Hallandale, 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, Okaloosa, Bay, Escambia, 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 the City of Venice, Cape Canaveral, Cocoa Beach, Marathon, and Holmes Beach as well as staff from the Florida Department of Environmental Protection. A total of seven (7) workshops were held around the state.
- Staff were invited to make presentations on marine turtles and conservation issues at the 2006 CLE International (Continuing Legal Education) Endangered Species conference in Tampa, DEP’s SLERP (Submerged Land and Environmental Resources) meeting in Jacksonville, DEP’s Workshop on Innovative Technologies in Tallahassee, and to the Army Corps of Engineers Council Meeting in St. Petersburg.
- FWC staff hosted the 2006 Marine Turtle Permit Holder Workshop, co-sponsored by The Jacksonville Zoo, for approximately 200 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 education and information to the public.
- 6) Engage in stakeholder outreach.

Accomplishments:

- Staff reviewed and prepared comments on draft manatee protection plans (MPPs) for Broward, Clay, Duval, Palm Beach and Volusia Counties. The FWC approved the final MPPs for Clay and Volusia Counties.
- In April 2006, FWC staff began flying aerial surveys of boating activity in Brevard County. These data, which are planned to be collected through at least June 2007, will be used along with other data and information to review an informal petition that was submitted in September 2005 by a local boating group requesting changes to some zones, mainly in the central portion of the county.
- In response to a May 2005 letter from the FWC, Charlotte County formed a Local Rule Review

Committee (LRRC) in July 2005 to consider possible amendments to allow a forked 25 MPH access channel in Placida Harbor to provide greater access to residents living on southern Little Gasparilla Island. The LRRC submitted its final report in October 2005. At the November 2005 FWC meeting, the FWC Commissioners considered the LRRC report and the FWC staff response, and directed staff to formally propose amendments. A Notice of Proposed Rulemaking was published in the *Florida Administrative Weekly* (FAW) in February 2006 and staff conducted a public hearing in Englewood in March 2006. The final public hearing was conducted during the June 2006 FWC meeting, where the amendments were approved as advertised. The amendments were filed for adoption with the Department of State in July 2006.

- In October 2005, the city of Jacksonville requested that the FWC amend its zones in the downtown Jacksonville area to make the zones the same as the existing federal zones, as amended by the United States Fish and Wildlife Service in April 2005. In response to a December 2005 letter from the FWC, the City (a consolidated government with Duval County) formed a LRRC in February 2006 to consider possible amendments. The LRRC met in March and April, and submitted its final report in May 2006. At the June 2006 FWC meeting, the FWC Commissioners considered the LRRC report and the FWC staff response, and directed staff to formally propose amendments.
- Chapter 2004-343, Laws of Florida, required the FWC to adopt a rule describing how the measurable biological goals (MBGs) are used when the FWC considers manatee protection rules. A Notice of Proposed Rulemaking was published in July 2005 and staff conducted a public hearing in Tallahassee in August 2005. The final public hearing was conducted during the September 2005 FWC meeting, where the amendments were approved as advertised. The amendments were filed for adoption with the Department of State in October 2005.
- In October 2005, Hillsborough County adopted Ordinance 05-15 to add manatee protection zones in the Cockroach Bay area. The FWC formally approved the ordinance in November 2005.
- A Notice of Change was published in the FAW in July 2005 to notice changes that were made in Lee County when the FWC Commissioners approved amendments to the rule in April and June 2005. The amendments were filed for

adoption with the Department of State in August 2005.

- Chapter 2002-264, Laws of Florida, authorizes the FWC to adopt rules dealing with the identification of “substantial risk counties” and establishing criteria for the approval of manatee protection plans. Staff conducted Rule Development Workshops in November 2005. Work on this rule was suspended in March 2006 when it was decided that additional discussions with stakeholders was needed concerning the statutory authority granted by the law.
- Between 2001 and 2006, the FWC performed numerous studies and other actions in fulfillment of a settlement agreement the FWC signed in 2001 to resolve a lawsuit from a coalition of environmental groups. The final requirement of the settlement was consideration of the need for new safe havens at six locations around Florida. Staff evaluated these areas and concluded that no new zones were needed at this time, although additional actions could be warranted in the future depending on the outcomes of several ongoing research projects. Staff presented its findings at the June 2006 FWC meeting and the FWC Commissioners concurred.
- Staff reviewed a total of 823 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.
- Public Outreach and Information programs focused on statewide efforts involving various printed materials. The e-field trip is a self-guided tour into the life of the manatee has been popular with students in Florida, the U.S. and around the world and will continue into the next year. <http://www.eFieldTrips.org>.
- 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 ACOE, the SFWMD and the 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 U. S. Army Corps of Engineers (ACOE) and South Florida Water Management District (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. The most recent five-year average for manatee deaths at structures and locks is 2.6 manatee deaths per year, as opposed to 7.6 deaths per year during the preceding 15 years.

- FWC co-chaired the Warm-Water Task Force (WWTF) with our UFSWS partners during the past year. A warm-water management plan has been drafted that addresses an interim strategy to maintain regional warm-water networks, as well as a long-term plan for sustainable warm-water habitat. The WWTF has begun efforts to identify specific warm-water habitat that may be incorporated into the interim and long term regional warm-water networks.
- FWC has also continued to co-chair the Habitat Working Group and participate in a broad range of manatee habitat issues with its Manatee Recover Team partners. These issues include; defining warm water and foraging habitat carrying capacity, effects of reduced spring flow and loss of thermal refuges, changes in foraging areas, development of alternatives to current artificial warm water sources, etc. Focused efforts of the Habitat Working Group include developing a suitable habitat checklist for identified natural and artificial warm water refuges and estimating habitat carrying capacity based on winter warm water refuge sites and foraging habitat available to regional manatee populations.
- The Commission worked with its federal and SFWMD partners to draft recommendations for manatee protection in Comprehensive Everglades Restoration Plan (CERP) related construction that include activities such as, culvert and water control structure installation, potential Aquifer Storage and Recovery (ASR) thermal effects, potential manatee entrapment in canal networks and in-water construction effects.
- The FWC continued working with the Kings Bay Advisory Group to restore submerged aquatic vegetation in the Kings Bay in Crystal River. 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.

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

Charles Bronson, Commissioner

DIVISION OF AQUACULTURE

Sherman Wilhelm, Director

Bureau of Aquaculture Development

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 2005/2006. During FY 2005/2006, 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 Division 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.

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 960 aquaculture facilities during FY 2005/2006. Shellfish producers (467 farmers) make up 49% of the certified farms, 232 ornamental producers make up 24% of the certified farms, 181 food fish producers make up 19% of the certified farms, with the remaining producing live rock, alligators and bait. Certified farms are found in 57 of the state's 67 counties: with the highest number of certified farms occurring in Levy County (20%), Hillsborough County (10%), and Dixie 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 634 aquaculture leases containing about 1,513 acres and 79 shellfish leases containing about 1,285 acres. Aquaculture leases are located in 13 counties, including: Brevard, Charlotte, Collier, Dixie, Franklin, Indian River, Lee, Levy, Monroe, Palm Beach, Pinellas, Volusia, and Wakulla 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 2005/2006, the Division collected 69,360 bushels of processed oyster shell from processors located primarily in Franklin County, and purchased 7,058 tons of fossil shell from a local quarry. Shell planting operations were interrupted by the several hurricanes and no recycled processed shell was planted on public reefs during the fiscal year. 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 376,446 bushels of live oysters were re-planted on public reefs in Franklin, Wakulla, Dixie, and Levy Counties.

Restoring Public Oyster Reefs

Florida 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 2005/2006, the Division

actively engaged in restoring oyster reef habitat on numerous sites identified in its oyster restoration plan. Approximately 5,400 cubic yards of fossil shell have been deposited to restore oyster reefs in Escambia Bay and East Bay, Santa Rosa County.

Apalachicola Bay Oyster Harvesting License

An oyster harvesting license is required to harvest oysters from Apalachicola Bay. In FY 2005/06, 754 oyster harvesting licenses were sold, representing a 5% increase from the number of licenses (714) sold in the preceding year.

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 2005/06, 795 sampling excursions were conducted to collect and analyze 13,101 water samples for fecal coliform bacteria, and there were 435 closures and re-openings of shellfish harvesting areas. During FY 2005/06, a total of 99 Shellfish Processing Plant Certification Licenses were issued and 367 regulatory processing plant inspections were conducted. Based on inspection results, 51 warning letters and 9 settlement agreements were issued.

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. Additionally, staff, in cooperation with the Office of Agriculture Law Enforcement, conducts compliance inspections on aquaculture leases to determine compliance with lease agreements.

L LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES OFFICE OF FISHERIES *Dwight Landreneau, 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 LDWF recommends seasons, 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 LDWF 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 continued administering 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 continue.

The Marine Fisheries Division also continued administering a \$144,128 federal grant (Interjurisdictional Assessment and Management of Louisiana Coastal Fisheries -NOAA/DOC Award No. NA03NMF4070125) 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 LDWF has managed the shrimp fishery in inside waters, utilizing a shrimp management zone concept. First implemented in 1975, this 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 2006, a portion of the State's Territorial Sea extending from the western shore of Freshwater Bayou Canal at 92°18' 33" west longitude to the Atchafalaya River Ship Channel at Eugene Island, as delineated by the Channel red buoy line closed to shrimping at 6:00 a.m. on January 9, 2006.

On January 30, 2006, that portion of the State's territorial sea 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°03' 10" north latitude and 90° 50' 27" west longitude, was closed to shrimping when significant numbers of undersized white shrimp were found in samples.

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°03'10" north latitude and 90°50' 27" west longitude, re-opened to shrimping on April 10, 2006.

The remaining portion of the State's Territorial Sea extending from the western shore of Freshwater Bayou Canal at 92°18' 33" west longitude to the Atchafalaya River Ship Channel at Eugene Island, as delineated by the Channel red buoy line, was closed to shrimping on

January 9 and re-opened on May 4, 2006.

Inshore Shrimp Seasons

The 2005 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) were to remain open to shrimping until March 31, 2006, however, sampling data indicated the presence of significant quantities of marketable shrimp within these waters and the season was extended for an additional seven days; closing April 7, 2006.

Sample data were used to set the opening and closing dates of the 2006 spring inshore shrimp season. Data indicated that management criteria for recommending an opening of the Spring inshore shrimp season in a portion of Zone 1 were met and the season was opened at twelve noon May 15, 2006, except for the open waters of Breton and Chandeleur Sounds, as described by the "double-rig line" (LA R.S.56:495(A)2), which opened to shrimping on May 8, 2006. Analyses of sampling data indicated that the management criteria for recommending an opening were projected to be met before the regularly scheduled meeting of the Louisiana Wildlife and Fisheries Commission; set for May 4, 2006. The Commission agreed to hold a special meeting and met on April 26, 2006, to consider the opening dates of the spring inshore shrimp season. Zone 2 opened at twelve noon on May 4, 2006, and Zone 3 opened at twelve noon on May 22, 2006.

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 2 at 6 a.m. on June 19, 2006. Zone I closed on July 5, 2006 except for that portion of Mississippi Sound from a position along the Mississippi-Louisiana state line at 30° 03' 12" north latitude and 89° 21' 30" west longitude southeastward to the U.S. Coast Guard navigational light off the eastern shore of Three-Mile Pass at 30° 03' 12" north latitude and 89° 21' 30" west longitude, thence northeasterly to a position which intersects the menhaden line as described in (LA R.S.56:495(A)2) north of Isle au Pitre at 30° 10' 00" north latitude and the open waters of Breton and Chandeleur Sounds as described in the "double-rig line". The Spring inshore shrimp season in Zone 3 was closed at 6:00 a.m. on July 17, 2006 except for that portion of 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 Ship Channel

to the south end of West Cove, which closed to shrimping on July 26, 2006.

Sample data were used to recommend the opening dates of the 2006 fall inshore shrimp season. Due to the presence of significant quantities of marketable size shrimp, the fall inshore shrimp season in that portion of Shrimp Management Zone 2 from the eastern shore of South Pass of the Mississippi River to the Atchafalaya River Ship Channel at Eugene Island, as delineated by the Channel red buoy line, opened at twelve noon on August 14, 2006. The 2006 fall inshore shrimp season in the remaining portion of Zone 2 and Zones 1 and 3 opened at twelve noon on August 21, 2006. Data indicated that white shrimp average size was below the legal minimum possession count of 100 individuals per pound heads-on throughout Louisiana inshore waters and the fall inshore shrimp season ended at official sunset on December 19, 2006, 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 March 31, 2007.

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 2006 totaled approximately 86.4 million pounds (all species combined/heads-off weight) and accounted for \$144.8 million in dockside sales. Shrimp landings in 2006 were the 3rd highest on record. Brown shrimp landings increased approximately 5 million pounds from the previous year, yet remained about 2.5 million pounds below the long term mean (1976-2006) of 31.7 million pounds. White shrimp landings increased approximately 15.6 million pounds from the previous year and measured 85.5 million pounds, the highest landings year on record and exceeded the long-term mean by 24.4 million pounds. Brown shrimp landings in 2006 were greatest during May, June and July while monthly white shrimp production peaked in August at nearly 16 million pounds. Seabob landings were highest during January and December.

Crabs

Louisiana commercial blue crab landings for 2006 totaled approximately 52.2 million pounds, with a dockside value of approximately \$31.7 million. This represented a 27% increase from 2006 landings of approximately 37.9 million pounds, yet dockside value declined from \$38 million (2005) to \$31.7 million reported in 2006. Stone crab landings for 2006 were 1,571 pounds. Stone crab landings increased approximately 60% from the 2005 landings of 649 pounds.

The major LDWF activity related to blue crabs in 2006 was the derelict crab trap removal program and in a single crab trap closure and derelict crab trap clean up was conducted. The southwest Terrebonne Bay estuary derelict crab trap cleanup took place over a 9-day period from 6:00 a.m. March 4, 2006 through 6:00 a.m. March 13, 2006. The number of traps and boats (as measured by boat-days) broken down into specific categories are provided in Table 1. A total of 2,935 abandoned crab traps were collected and overall documented volunteer participation included 17 recreational fisherman boat-days, 11 commercial crab fisherman boat-days, 8 LDWF boat-days, and 3 agency/university boat-days. On a percentage basis, commercial crab fishermen collected 35.3% of the traps, followed by LDWF personnel (31.3%), recreational fishermen (22.8%), and agency/university personnel (8.8%). Recreational fishermen provided 43.6% of the effort as measured by boat-days, followed by commercial crab fishermen (28.2%), LDWF personnel (20.5%), and other agencies/universities (7.7%). LDWF personnel also spent 4 boat days ferrying traps to dumpsters that were deposited by volunteers at temporary disposal sites.

The Louisiana Crab Task Force has continued to meet and address issues confronting the industry. A major issue in the fishery is low prices associated with increased foreign imports of crabmeat. The Louisiana Crab Task Force continues discussions on a limited entry program for the commercial blue crab fishery and impacts of crabmeat imports.

Table 1. The total contribution to the 2006 derelict trap cleanup by participants.

Total Number	Recreational Anglers	Commercial Fishermen	LDWF Staff	State Agency	Other	TOTAL
TRAPS	672	1035	919	259	50	2935
BOATS	17	11	8	3	?	39

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 LDWF 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 11.3 million pounds had a dockside value of nearly \$30 million, in 2006.

Oyster Seasons

Statutory provisions mandate that the LDWF 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 LDWF. 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 2006 nearly 70% 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 2006 measured 3.07 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.

The Calcasieu Lake Public Oyster Area previously restricted commercial harvest to tonging. However, a 2004 law change, allowed for the use of hand dredges to harvest oyster resources in the lake beginning in the 2004/2005 oyster season. Sabine Lake is the only public tonging area in Louisiana and harvest is restricted to use of hand tongs, but poor water quality prohibits oyster harvest based on public health concerns. 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. Oyster harvesters use mechanical dredges on public grounds and reservations, and hand dredges with no mechanical assistance in the Calcasieu Lake Public Oyster Area.

The Calcasieu Lake public tonging area was opened by Louisiana's Wildlife and Fisheries Commission (LWFC) on October 16, 2006. Calcasieu Lake was also opened and closed within the LWFC seasonal framework by the Louisiana Department of Health and Hospitals (LDHH) for water quality concerns based on the level of the Calcasieu River.

In order to further assist with the rehabilitation of oyster resources heavily impacted by Hurricanes Katrina and Rita in 2005, the 2006 oyster season on public oyster

areas east of the Mississippi River and in the Barataria Bay system was opened for only three weeks in September 2006 beginning on September 6 and then closed for 1.5 months until a reopening in mid-November 2006. 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 2006 oyster season on the public oyster areas are further described below in Table 1.

Oyster Leasing

The moratorium on the issuance of new oyster leases, at the request of Louisiana Department of Natural Resources (LDNR), remained in affect throughout 2006. 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 1242 renewal applications were processed.

The Oyster Lease Survey Section was temporarily located in the Louisiana National Guard compound at Jackson Barracks 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, landings and harvest statistics, and recent news articles about oysters. The website has had thousands of visits since it was developed and placed on the web 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.

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)	December 12, 2005 September 6, 2006 November 13, 2006	April 1, 2006 September 27, 2006
Hackberry Bay Public Oyster Seed Reservation	September 6, 2006 November 13, 2006	September 27, 2006
Lake Chien Public Oyster Seed Grounds	November 13, 2006	November 15, 2006
Lake Felicity Public Oyster Seed Grounds	November 13, 2006	November 15, 2006
Bay Junop Public Oyster Seed Grounds	November 13, 2006	December 12, 2006
Atchafalaya/Vermilion Public Oyster Seed Grounds	September 7, 2005 September 6, 2006	April 1, 2006
Calcasieu Lake Public Oyster Area	October 15, 2005 November 1, 2006	April 30, 2006
Sister Lake	January 3, 2006	January 31, 2006

Hydrological readings (conductivity, salinity, and water temperature) collected with each biological sample, as are wind direction and speed. Samples are collected at specific locations 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 2006 sampling year Marine Fisheries field personnel collected 2,045 seine, gill and trammel net samples combined, to obtain a 97.8 percent success rate.

Dependent Monitoring

The value of commercial landings in Louisiana exceeded \$270 million in 2006, a \$19 million increase from the 2005 landings year. The LDWF 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 sheddors and commercial fishermen holding fresh products licenses. There were over 208,541 commercial fishing trips reported in 2006, 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 127 dealers utilize the computerized program and submit their trip ticket data to the LDWF 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 LDWF 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 LDWF 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 1.2 million anglers who caught approximately 23.8

million spotted sea trout and 6.1 million red drum in Louisiana waters, in 2006.

Finfish Stock Assessments

Division personnel updated stock assessments for black drum, striped mullet, southern flounder and sheepshead in 2006. 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 (2002-2005) 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 96% to 99% of maximum and SPR at 23% to 29%. An M of 0.8 (the highest value within the range examined) would produce yields of 54% to 61% of maximum with SPR at 43% to 50%.

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 F_{MAX} with yield of about 97% of maximum, and SPR near 31%. An M of 0.6 would indicate a more lightly fished stock with yield being 86% of maximum and with SPR being near 64%.

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 – 2005) was operating well near $F_{0.1}$ and well below F_{MAX} , with yield of 66% to 79% of maximum, and SPR at 48% to 59%. An M of 0.3 (the highest value examined) would indicate a more lightly fished stock with yield being 32% to 48% of maximum and with SPR being 68% to 80%.

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. 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, thirty-nine petroleum or other companies have participated in the offshore program by donating the jackets of 155 oil and gas platforms, 40 Armored Personnel Carriers (APC's), and one offshore tug structure which were installed at select locations as artificial reefs. In addition the reef program also developed fourteen inshore reefs, primarily low profile reefs composed of shell and limestone. LDWF constructed nine reefs and six others were constructed in association with public conservation groups. In working with one of these groups the LDWF constructed four reefs using reef balls. These reefs have been deployed successfully in tropical and oceanic environments but this was the first attempt to deploy in an estuarine setting. Six new obsolete oil platforms were added to the program as artificial reefs during 2006.

As the oil and gas industry in the Gulf of Mexico recovers from the devastation of the 2005 hurricane season, they continue to be faced with removing structures 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 that might occur during 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.

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 2006, the LDWF conducted summer (June) 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 2006 survey was conducted June 20-23, aboard the chartered vessel *Pelican*. During this survey, the trawl was fouled in the wheel of the survey vessel resulting in only eight of 12 scheduled daytime and nighttime demersal trawl stations being sampled successfully. All seven plankton stations were complete.

The winter 2006 survey was conducted December 12-15, aboard the chartered vessel *Pelican*. All 12 scheduled daytime and nighttime demersal trawl stations and six plankton stations were sampled successfully. There were no stations found to be hypoxic during the winter cruise, and only one station (6 fathoms), sampled during the June cruise, had hypoxic bottom water.

Oil Spill Contingency Planning and Response

The LDWF's Oil Spill Task Force continued in 2006 to develop and implement plans to protect and restore the State's wildlife, fishery, and habitat resources from the adverse effects of oil spills. With other state and federal trustees, LDWF representatives continued to develop a pilot plan for a regional restoration planning program for Louisiana that will provide a means to efficiently restore habitat and other natural resources injured as a result of small spills.

Pre-assessment data collection for NRDA was begun for spills that occurred during 2006. These were:

- January 2006 Shell pipeline spill in Joseph's Bayou in South Pass.
- Newly discovered Hurricane Katrina and Rita spills across coastal Louisiana.
- June 2006 CITGO waste pit overflow in the Calcasieu Ship Channel.

The LDWF continued damage assessment activities and monitoring spills:

- January 2005 Shell pipeline spill in Joseph's Bayou in South Pass.
- February 2005 Texas Petroleum pipeline spill at Delta Farms in Lafourche Parish.
- April 2005 Exxon/Mobile pipeline rupture in West Champagne Bay.
- June 2005 Amerada Hess tank overflow onto Breton Island.
- July 2005 Exxon/Mobil spill in West Bay Champagne north of Grand Isle.
- August 2005 Enervest had a well head leak in Garden Island Bay.
- August 2005 multiple small spills related to Hurricane Katrina in Southern Louisiana.
- September 2005 multiple small spills related to Hurricane Rita in the western portion of the State.
- October 2005 Gold King/Shell had a mystery spill in Garden Island Bay.
- November 2005 Exxon/Mobile had a pipeline rupture in Raceland.
- September and October 2004 multiple post Hurricane Ivan oil spills into the marsh along Pass-a-Loutre and in the Wildlife Management area itself.
- Damage assessment on November 2003 Exxon/Mobil pipeline spill on Mendicant Island north of Grand Isle in Barataria Bay.
- Restoration planning with Shell/Texaco on a Dec/Jan 2003 pipeline blowout in Terrebonne Bay, south of Concordia, LA to discuss restoration projects.
- Injury determination on a March 2003, Exxon/Mobil oil spill in Lake Washington, out of Port Sulphur, LA.
- Restoration phase begun for the April 2002 BP/Amoco pipeline spill in Little Lake in the Barataria Basin near Galliano, LA.
- Restoration projects circulating for the May 2002 Unocal Oil pipeline spill in the East Lake Palourde Field near Morgan City.

- Continual site visits for damage assessment determinations of the December 2002 Hillcorp pipeline spill at Duck Lake in the Atchafalaya basin.
- Restoration planning began for the September 2002 Ocean Energy well blowout at North Pass of the Mississippi River near Delta National Wildlife Refuge and Pass-a-Loutre State Wildlife Management Area.
- Restoration underway for an April 2001 Williams Petroleum pipeline spill at Mosquito Bay near Pointe au Fer.
- Monitoring of restoration that was put in place for the November 2000 T/V Westchester tanker spill in the Mississippi River. The focus of restoration for this spill was the area on and around Pass-a-Loutre State Wildlife Management Area where a delta splay project was constructed to compensate for marsh and other habitat injuries. Improvements were also made to campground facilities on the WMA. Monitoring continues.
- Restoration planning activities for a June 1997 Apache Corporation pipeline spill in coastal Vermilion Parish continued in 2004.
- Restoration project for the September 1998 Equinox well blowout in Lake Grand Ecaille, Plaquemines Parish was delayed by Katrina-related equipment shortage.

The LDWF also participated in an interagency project initiated by the Louisiana Oil Spill Coordinator's Office, to develop regional plans to restore natural resources injured in oil spills.

In addition the LDWF 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 LDWF 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 are available to the public, via the internet, 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 user's 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, and is only awaiting a site selection process for completion. 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 LDWF 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. LDWF personnel sampled 50 randomly generated sites in coastal Louisiana for water quality, fish tissue and sediment samples between July and September 2006, in the seven Coastal Study Areas. Data from the program will be used in a comparative assessment of the health of the Gulf of Mexico waters. With the passage of Hurricanes Katrina and Rita, EPA used the Louisiana NCA data from 2000-2004 as a baseline for pre-hurricane coastline condition, for internal circulation.

The 2006 sampling work was done in an extension of the original 2000-2004 State assessment. It was intended to sample in 2005, however, due to delays encountered during the grant process, including adjustments to the sampling design, and in light of the logistical problems left in the wake of Hurricanes Katrina and Rita, the decision was made by the EPA to complete all sampling, in the summer of 2006.

Crab Effort

In 2006, LDWF began a one year pilot study to collect effort data on the blue crab fishery. The study is scheduled to run from October 1, 2006, to September 30, 2007. The goal of this project is to interview commercial crab fishermen and determine the number of gears set by sub-basin area, soak times, by-catch information, and baiting habits. The project targeted over 250 commercial crab fishermen from October through December 2006.

Coastal Wetlands

In 2006, the Marine Fisheries Division continued to work with state and federal agencies to develop strategies for slowing the rate of coastal wetlands loss 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. Applications to construct new Deepwater Port Liquefied Natural Gas terminals dwindled in 2006. One application for an "open-loop" regasification facility off the coast of Louisiana was resubmitted as a closed loop facility, and received support from the state of Louisiana with conditions. The applicant for a new project off the coast of Mississippi withdrew its application, after a veto threat by the Governor, and yet another new project application for a terminal in deep water off the coast of Alabama was filed, and is under review. Staff also 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. That work is on-going. Other on-going 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 wild life resources by ensuring compliance with LDWF seismic rules and regulations. During 2006, the seismic section monitored 27 projects throughout the state.

Caernarvon Biological Monitoring

The Caernarvon Project has been operational for 15 years and in 2006 Marine Fisheries personnel continued to monitor its effects on the fish, wildlife and vegetation populations in the basin. After the loss of interior marsh, caused by Hurricane Katrina in 2005, the Caernarvon Interagency Council agreed to increase the scheduled flow through the structure up to 7500 cubic feet per second (cfs). Repairs to hurricane damage on the diversion structure were completed in mid-January, and diversions began on 19 January, at a target rate of 2000 cfs. Flows were monitored as not to affect repairs to the back levees in Plaquemines Parish; that were breached during Hurricane Katrina. Flows were increased to 4500 cfs until 01 February, when Parish officials requested that the structure be closed to prevent damage to the back levee breaches. Plaquemines Parish and the US Army Corps of Engineers agreed to allow flows as high as 5000 cfs, and flows averaged between 3500 and 4000 cfs, from February through May. Flows were reduced to 2000 cfs in June, to allow shallow ponds created by Hurricane Katrina, to temporarily drain and encourage revegetation, permit repairs to the structure, reduce water levels to facilitate levee construction, and to accommodate local landowners' alligator harvesting operations. Water levels in the Mississippi River soon began to drop and flows through the structure were reduced to less than 1000 cfs, from the latter part of June through September. River levels began to rise slightly in October, and with northerly winds, produced enough head differential to allow flows in the 3000 cfs range. Repairs to the three levee breaches behind Scarsdale and Braithwaite were proceeding at a slow pace and it appeared that repairs would continue into early 2007. Flows increased to near 4000 cfs in early November, but soon dropped to 1000 cfs and less for the remainder of the year due to low river levels. The number of sack oysters available for harvest on the public oyster seed grounds in 2006 as indicated by the meter square samples was approximately 155,500 barrels. This was down 48% from 2005, and down 86% from the 10-year average. The number of seed oysters available on the grounds totaled 1,107,647 barrels, which was an increase of 83% from 2005, but down 53% from the 10-year average. Catch per Unit Effort (CPUE) of brown shrimp in the 16-foot samples during the five weeks before the season opened was 58.9, which was up 88% from that of 2005. This was also up 55% from the previous 10-year average CPUE for brown shrimp. CPUE of brown shrimp in the 6-foot samples during this time period was 70.7 which was 3.5 times that of 2005 and up 169% from the previous 10-year average. The average salinity at all trawl stations during this time was 9.2 parts per thousand (ppt), 6.5

ppt higher than 2005, which was the lowest of the 19 monitoring years. Annual CPUE of spotted seatrout from fishery independent sampling decreased in two of the three sampling gears as compared to 2005. Spotted seatrout CPUE was up 125% in trammel net samples, but down 31% in gill nets and down 83% in seine samples from that of 2005. Annual CPUE of red drum increased by 19% from that of 2005 in gill nets samples. However, catch rates of this species were down 70% in seine samples and down 3% in trammel net samples, from 2005.

Davis Pond Biological Monitoring

The Davis Pond Project came on-line 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 2006 was the fourth full year of the post-construction operation, continued problems with diverted water leaving the ponding area caused operators to moderate flow. The structure flowed at between 3000 to 4000 cfs, from mid-January through May. During June and July flow rates were reduced to 2,500 cfs in preparation for work on the west guide levee. Low river levels began to limit flows. Work on the structure was not completed. During August and September, the structure was open but little flow occurred due to very low river levels. The structure was closed on several occasions for fear of backflow. For the first half of October the diversion was only operating at between 500 and 1,000 cfs. Flow increased during the second half of October to 4,000 cfs as river levels rose. During October modifications to the outflow channels in the ponding area conducted by D.N.R. and St. Charles Parish were completed. From Late October to Mid December river levels allowed an average flow of between 3,000 and 3,500 cfs. For the last portion of December low river levels and anticipated work on the west guide levee had flow reduced to an average of 2,000 cfs. Marine Fisheries personnel continued to monitor the fisheries resources in the Barataria Basin including a comprehensive study of the Davis Pond project effects on recreational fishing throughout the basin. Brown shrimp CPUE from the six Davis Pond 16-foot monitoring stations taken during the five weeks before the opening day of the 2006 spring inshore shrimp season, increased 3.6 times from that of 2005. This is 2.7 times the previous 4-year average. Average salinities at these stations during this time were approximately 2.23 ppt higher than 2005 levels. White shrimp CPUE from the six Davis Pond stations during the five week period preceding the opening of the 2006 fall inshore shrimp season was down 90% from 2005 and was 71% lower than the 2002-2005 average CPUE. Average annual CPUE data

for spotted seatrout for 2006 from the Davis Pond stations was 3.92, which is up 202%, from that of 2005 in gill net samples. Average annual CPUE for spotted seatrout for 2006 was 0.23 in Davis Pond seine stations which is up 144% from that of 2005. Average annual CPUE of red drum showed a decrease of 17% in the 2005 gill net samples from 0.21 to 0.18 and showed a decrease of 65%, from 0.17 in 2005 to 0.06 in 2005 in seine nets. Marine Fisheries personnel continued to monitor the fisheries resources in the Barataria Basin including a comprehensive study of the Davis Pond project effects on recreational fishing throughout the basin. The Marine Fisheries Division provides input into the operation of both structures.

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 LDWF 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, ULL, and Nicholls State University researchers make use of laboratory facilities. 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 2006, this project continued development of marine boating access for recreational anglers. It is an objective of the LDWF 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 will evaluate and document 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 is a cooperative effort between the LDWF, New Orleans City Park and the University of New Orleans (UNO). The project started on January 1, 2005, and is scheduled to be completed by 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, LA. 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. Due to impacts from Hurricane Katrina, project initiation was delayed six months and currently is scheduled to be completed by July 1, 2008.

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 LSUCFI 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 2006 calendar year, otoliths were collected from black drum (638 collected, 637 aged), striped mullet (644 collected, 635 aged), sheepshead (492 collected, 491 aged), gray snapper (173 collected, 170 aged), spotted seatrout (1483 collected, 644 aged), and red drum (1093 collected, 1091 aged). During 2006, spotted seatrout otolith processing stopped so otoliths could be used for additional analyses by LSUCFI.

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 September 30, 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 LDWF and LSUCFI. These data will be used in future planning efforts to optimize the creation of habitat for sport fish. Phase three will add 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.

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 three year 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 2006, volunteer recruitment for the Marine Sport Fish Tagging Study continued. An additional 4,168 spotted seatrout and red drum were tagged and released in coastal Louisiana during 2006. This is a cooperative project between the LDWF, LSU, UNO, and the Audubon Aquarium of the Americas. This project started on July 1, 2004 and is scheduled to be completed by June 30, 2007.

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 LDWF and the UNO. This project started on July 1, 2004, and is scheduled to be completed by June 30, 2007.

HURRICANE KATRINA AND RITA RECOVERY

In July 2006, Public Law 109-234 provided funding to the National Oceanic and Atmospheric Administration

for the five Gulf States to provide for restoration of fisheries damaged by the catastrophic hurricanes of 2005. NOAA granted the funds to the Gulf States Marine Fisheries Commission (GSMFC) for Subgrant to the states. Louisiana defined three jobs to accomplish the work authorized by PL 109-234:

- Job 1: Reseeding, Rehabilitating and Restoring Oyster Reefs (Subgrant OR-RRR-020-2006-01, \$22,900,000)
- Job 2: Rehabilitating Oyster Bed and Shrimp Grounds (Subgrant OB-SGR-021-2006-01, \$25,016,667)
- Job 3: Cooperative Research to Monitor Recovery of Gulf Fisheries (Subgrant CR-M-022-2006-01, \$5,000,000)

Planning activities to identify job tasks began in late June, 2006. Subgrants were awarded effective October 1, 2006 through September 30, 2011. The LDWF received budgetary authority for the subgrants from the Louisiana Legislature on October 20, 2006. Planning for implementation for all jobs began immediately.

The objective of Job 1 was to reseed, rehabilitate and restore Louisiana's oyster resources on private oyster leases and public oyster seed grounds and seed reservations damaged as a result of Hurricane Katrina and Rita. Several tasks were identified to accomplish this goal.

Private Oyster Resource Reseeding, Rehabilitation and Restoration.

Louisiana proposed to provide partial reimbursement to oyster leaseholders for qualifying work done to improve and rehabilitate private oyster leases damaged as a result of the storms of 2005. Leaseholders could select from a list of qualifying activities and submit documentation for reimbursement upon completing rehabilitation activities. Qualifying activities were: removing sediment overburden and debris; cultch deposition; resurveys and re-marking of private oyster leases; funds to offset expenses associated with Louisiana Department of Health and Hospitals (LDHH) oyster relay permit requirements; and bedding oysters on private leases.

The LDWF also proposed to provide funds to assist in re-establishing LDHH water quality sampling and laboratory function; develop a native stock oyster hatchery through the LDWF Marine Research Laboratory, located on Grand Isle, to implement a hatchery based oyster seed program and for spawning and rearing polyploid and Dermo-resistant oysters; and develop and implement a records management and

archiving system for the Louisiana Department of Wildlife and Fisheries oyster leasing records to maintain permanent storm-proof records.

Public Oyster Resource Reseeding, Rehabilitation and Restoration.

Louisiana proposed a program of side scan sonar surveys conducted on the public oyster seed grounds and seed reservations in order to map and mark the size and location of oyster reefs, identify bottom types and develop estimates of reef acreage. In order to replace reefs buried by sediments and debris, cultch material including limestone, crushed concrete or recycled oyster shell and other suitable cultch material will be deposited over water bottoms within portions of the state's public oyster areas. The LDWF will monitor oyster recruitment, development, growth and harvesting activities on public seed grounds.

The objective of Job 2 was to rehabilitate Louisiana oyster beds and shrimp grounds damaged as a result of Hurricane Katrina and Rita. Several tasks were identified to accomplish this goal.

Underwater Obstructions / Wet Debris Removal.

Underwater obstructions fouling traditional fishing grounds will be identified and removed under this task. The LDWF developed a request for proposal for a contractor to involve Louisiana commercial fishermen and industry participants to remove debris and restore bottom habitats to pre-storm conditions. The LDWF proposed to transfer funds to the Louisiana Department of Natural Resources (DNR) to expand scope of the state fisherman's gear compensation fund program to compensate for loss of fishing gear due to encounters with wet debris, and to expand the Underwater Obstructions Removal Program. Also proposed were logbooks for commercial fishermen, vessel owners, wholesale seafood buyers, fresh products license holders and seafood processor to record fishing activity and disturbances to normal fishing patterns, especially encounters with underwater debris.

Oyster Bed and Shrimp Ground Rehabilitation.

The LDWF proposed to construct and monitor projects to demonstrate simultaneous management for waterfowl and optimized marine organism access to marsh impoundments, and to demonstrate use of cultch to construct wave attenuation/shoreline stabilization structures. Also, the LDWF will re-establish the functions of the LDWF Marine Research Laboratory where methods to rehabilitate and monitor oyster beds and shrimp grounds which sustained heavy damage from the 2005 hurricanes are developed.

Data Management System Improvements.

The department proposed to upgrade the LDWF computer server, data entry system and statistical analysis software, hire a contractor to migrate existing fisheries independent and dependent data bases into new server format, and modify existing data entry routines.

The objective of Job 3 was to conduct cooperative research to monitor the recovery of Gulf fisheries damaged as a result of Hurricane Katrina and Rita.

Characterizing Harvester-level Fishing Operations.

The LDWF proposed to collect socioeconomic data from commercial industry participants to characterize the industry pre- and post storms. Each respondent will be compensated for their efforts.

Monitoring Recovery of Commercial Fisheries.

The LDWF proposes to use trip-ticket data to track purchases by individual dealers pre- and post-hurricane, to analyze impacts and geographic shifts in landings. The objective of this project is to analyze where impacts occurred, how the industry participants responded, and the timetable on which dealers and fishermen resumed operating in different areas.

Fishery-Independent Monitoring of Gulf Fishery Stocks.

Conduct fishery-independent monitoring in accordance with established LDWF fishery-independent data collection procedures on the abundance, available sizes, and growth rates of the stocks of Gulf fishery species.

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.
- 2006 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 2006, 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, the TCC Blue Crab Subcommittee, the TCC Data Management Subcommittee, Sheepshead Technical Task Force, 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.

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. Data are 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.

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.

SHELLFISH MANAGEMENT PROGRAM

Objectives

- 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. During 2006, no oysters were harvested on Mississippi’s oyster reefs. 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 scannable 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.
- Four Cultch Plants included 93,730 cubic yards of cultch material rehabilitating 1,000 acres of oyster reef.

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 272 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 along the coast for real-time hydrological monitoring.
- Real-time data from seven 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 approval worthy of merit and issued permit, a complete report of collection or harvesting activity must be submitted to the MDMR. 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 no derelict traps collected in 2006.
- Damage assessment to the shrimp and crab fisheries was conducted in the wake of Hurricane Katrina. Shrimp and crab fisheries benefit from the on-going five year NOAA funded Emergency Disaster Relief Program “The rehabilitation and monitoring of Mississippi’s shrimp and blue crab fishing grounds and associated essential habitat – An integral component to the recovery of Mississippi’s seafood industry.” Cooperative seafood industry and MDMR activities administered under this grant include shrimp and crab fishery recovery reporting and storm related derelict crab trap removal efforts.

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. Saltwater scientific collection permits were issued in a manner to protect Mississippi’s marine resources while allowing legitimate research and development. 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.

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 sports 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 85 concrete modules (26’x12’x9’), concrete rubble (152 deployments), 64 steel hull vessels (including barges), one oil rig living quarters, two oil rig jackets, and 122 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, concrete rubble (when water depth allows), oyster shells, and fly ash. 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

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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 world. 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.

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 (14" and larger).

- 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.

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;
- Provide administrative support to the activities of the office, department, and MCMR.

Status

A total of 4,250 technical assistance actions were provided. 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 MSU CREC;
- 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.

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; and
- Received FDA notification that the Mississippi Shellfish Sanitation Program met NSSP requirements.

Types and Number of Seafood Facilities Permitted

There were 45 seafood/sanitation processing permits issued:

Shrimp – 17
 Crab – 10
 Oyster – 18

These 45 permits represent 512 inspected seafood units. Examples of seafood sanitation and health safety regulatory activities conducted by the Seafood Technology Bureau include: 4,250 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; and
- Participated at the deliberation of issues and resolutions on shellfish sanitation at the Gulf and South Atlantic States Conference.

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 2006 (September 1, 2005 through August 31, 2006) 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 subadult 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 2006 included 796 gill net sets; 2,160 bag seine tows; 2,639 bay and gulf trawls; and 1,204 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 trawl. No long line samples were taken in 2006 due to engine problems on the research vessel.

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 1,134 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 2006 closure held February 17-26, in a self facilitated effort, approximately 100 volunteers plus several TPWD staff removed 1,922 derelict traps coastwide. This effort brings the total number of traps removed since the program began in 2002 to 19,930. Most (89%) of the traps were removed from Galveston Bay (58%), Aransas Bay (20%) and San Antonio Bay (11%) respectively. Additionally, 22 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 Gulf menhaden, spotted seatrout, sheepshead, and billfish. Collection and processing of genetic samples from these species continued, final reports were completed for Gulf menhaden and spotted seatrout genetic projects. 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, greater amberjack, and Gulf flounder. 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 continued. 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 Texas Legislature only meets during odd-numbered years. Consequently, no statutory changes occurred during FY 2006.

TPWC Rule-making Actions:

The following new rules regarding saltwater fishing were adopted by the TPWC.

The uprooting, by any means, of individual seagrass plants of five specific species throughout the Redfish Bay State Scientific Area was prohibited, and the three heretofore voluntary no-prop zones were converted into mandatory no-prop zones. In this instance, no prop means that the operation of vessels powered by submerged propellers is prohibited except under certain circumstances. To facilitate public awareness of the new rule, a concerted education campaign was begun along with extensive efforts to identify and mark access points into the area that will minimize seagrass damage, and to identify especially vulnerable areas which should be avoided by boaters.

The take of largemouth sawfish (*Pristis perotteti*) was prohibited. Because of the extreme difficulty that anglers have in distinguishing the smallmouth sawfish from the largemouth sawfish, protection of both is believed to be the only way to protect the listed species.

The requirement for a tarpon tag was repealed. In order for a state record fish to be retained, a one-fish bag limit per day and a minimum size limit of 80 inches (TL) were maintained allowing for minimal landings of fish that are thought to be in contention for a state record.

The take of one black drum over the state record of 52 inches was allowed in order for a potential state record fish to be retained.

The recreational possession limit for flounder was reduced from 20 fish to the current daily bag limit of 10 fish.

The tripletail (*Lobotes surinamensis*) was named a game fish, and a minimum size of 17 inches (TL) and daily bag limit of 3 fish (6 in possession) was established.

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 2006 a total of 19.7 million red drum fingerlings, 1.3 million spotted seatrout fingerlings and 1,473 southern flounder averaging 40.5 mm TL were stocked into marine water. Approximately 208,440 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 44,755 visitors in 2006. The Marine Development Center toured 1,931 visitors, and the PRB satellite pond facility received 117 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 06 the Lavaca Bay legal settlement with Alcoa Inc. and Alcoa World Alumina L.L.C. that provided for restoration and cleanup of mercury-contaminated sediments in the bay as well as soil contamination of the Point Comfort/Lavaca Bay Superfund Site.

Staff provided recommendations to the Federal Energy Regulatory Commission and the U.S. Army Corps of Engineers on several Liquefied Natural Gas (LNG) facility licenses and permits including Golden Pass, Freeport LNG, and Calhoun LNG. These recommendations have resulted in avoidance and minimization of impacts to fish and wildlife resources. Participation by staff with the applicants and other agencies resulted in significant compensation of important habitat impacts for example Pintail Flats was restored in the Salt Bayou Complex as part of the mitigation for the Golden Pass LNG near Port Arthur, Texas.

The TPWD Staff participated in various Interagency Teams (ICT) federal projects administered by the U.S. Army Corps of Engineers (USACE). The projects included Texas City Deepening and Widening ICT, Matagorda Ship Channel Improvement ICT, Clear Creek Flood Protection ICT, Sabine-Neches Waterway ICT. Staff participation provided the primary input for State on fish and wildlife resources to the federal government.

Artificial Reef Program

The Artificial Reef Program was responsible for maintaining 57 permitted reef sites, eight USCG required marker buoys (five permanent and three temporary), and two mooring buoys. The Program received six petroleum structures in the Outer Continental Shelf area of the Gulf of Mexico in 2006. One structure was deployed in the High Island area (HI-A-466); four structures were deployed in the Matagorda Island area (MI-699 "B", "C", "D", & "E"); and one structure in the Mustang Island area (MU-A-16). The four MI-699 structures were removed by explosives and towed to the existing Matagorda Island A-7 reef. The structures in HI-A-466 and MU-A-16 were partially removed by mechanical cutting and reefed in place. The Texas Artificial Reef Fund received \$1,002,650 in donations. The nearshore reef offshore Port Isabel, in PS-1169, was further enhanced with 4 reef ball structures. A total of 46 reef ball structures have been deployed in the Port Isabel reef.

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 2006, commercial shrimp fishing in federal waters off Texas was closed May 15 through July 10.

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, revised federal permitting requirements for shrimpers operating in federal waters of the Gulf of Mexico, including the establishment of 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.

The action with the greatest public interest was the establishment of a 10-year moratorium on the issuance of federal commercial shrimp vessel permits. Between October 26, 2006 and October 26, 2007, qualified shrimp vessel owners could apply for and receive 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.

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. A program will be established where a

sample of federally-permitted shrimp vessels will be equipped with electronic logbooks provided by NOAA Fisheries Service, and a sample of federally-permitted shrimp vessels will carry observers. Additional reporting requirements include mandatory reporting of landings, vessel and gear characteristics.

Gulf Reef Fish Fisheries

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

The Gulf of Mexico Fishery Management Council (GMFMC) determined an IFQ program would address the immediate overcapitalization problems in the commercial red snapper fishery and would assist in achieving optimum yield from the fishery. The GMFMC started to develop Amendment 26 to establish a Red Snapper IFQ Program after a referendum was conducted in November 2004, which indicated red snapper commercial fishermen were in favor of an IFQ program. On January 17, 2006, NOAA Fisheries Service conducted a second referendum to determine if Amendment 26 should be submitted to the Secretary of Commerce (Secretary). The majority of voters (87%) supported submission of this amendment and the GMFMC submitted Amendment 26 to the Secretary in March 2006.

On November 22, 2006, NOAA Fisheries Service published a final rule which would implement the Red Snapper IFQ program on January 1, 2007. The final rule specified the structure of the IFQ program including: program duration; ownership caps and restrictions on IFQ share certificates; eligibility for initial IFQ allocation; initial apportionment of IFQ shares; establishment and structure of the appeals process; transfer eligibility requirements; use it or lose it clause for IFQ shares or allocations; adjustments in commercial quota; and a cost recovery plan.

Grouper Interim Rule Extension

On January 24, 2006, NOAA Fisheries Service extended an interim rule for grouper initially implemented August 9, 2005. The extension maintained the red grouper bag limit at one fish per angler per day. The intent of this action was to address red grouper overfishing until the GMFMC could implement more permanent management measures to constrain recreational harvest (see Grouper Regulatory Amendment below).

Grouper Regulatory Amendment

The GMFMC approved a regulatory amendment to the Reef Fish FMP in November 2005. On July 15, 2006, NOAA Fisheries Service implemented a final rule reducing the red grouper bag limit to one fish per

angler per day. This rule also prohibited captain and crew on for-hire vessels from retaining any bag limit of grouper while under charter. At that time, NOAA Fisheries Service delayed implementation of a one-month recreational closed season for gag, black, and red grouper until the results of the June 2006 gag stock assessment were completed. After reviewing the results of the gag stock assessment, which indicated gag was undergoing overfishing, NOAA Fisheries Service published a final rule on November 17, 2006, implementing the February 15 to March 15 recreational closure. The intent of these regulations was to address overfishing of red grouper and constrain recreational harvest to the 1.25 million pound annual target catch level.

Amendment 17/25 – Charter/Headboat Permit Moratorium

On May 16, 2006, NOAA Fisheries Service published a final rule implementing Amendment 17 to the Coastal Migratory Pelagics FMP and Amendment 25 to the Reef Fish FMP. The final rule replaced the charter/headboat coastal migratory pelagic and reef fish fishery permit moratorium with an indefinite limited access system. The intended effect of the final rule was to provide biological, economic, and social stability in these fisheries by preventing speculative entry and capping participation at current levels. The final rule became effective June 15, 2006.

Amendment 18A

Amendment 18A was developed by the GMFMC to resolve several issues related to monitoring and enforcement of existing regulations, to update the framework procedure for setting total allowable catch (TAC) to reflect current terminology and stock assessment procedures, and to reduce bycatch mortality of incidentally caught endangered sea turtles and smalltooth sawfish. The GMFMC approved the amendment in October 2005 and NOAA Fisheries Service implemented resulting regulations, with the exception of vessel monitoring system requirements, on September 8, 2006. This amendment prohibits vessels from retaining reef fish caught under the recreational size and bag/possession limits when commercial quantities of Gulf reef fish are onboard; adjusts the number of persons allowed onboard when a vessel with both commercial and charter vessel/headboat permits is fishing commercially; prohibits the use of Gulf reef fish, except sand perch or dwarf sand perch, as bait in any commercial or recreational fishery in the exclusive economic zone of the Gulf of Mexico, with a limited exception for crustacean trap fisheries; requires a NOAA Fisheries Service-approved vessel monitoring

system on board vessels with federal commercial permits for Gulf reef fish, including charter vessels/headboats with such commercial permits (became effective May 6, 2007); and requires owners and operators of vessels with federal commercial or charter vessel/headboat permits for Gulf reef fish to comply with sea turtle and smalltooth sawfish release protocols, possess on board specific gear to ensure proper release of such species, and comply with guidelines for proper care and release of incidentally caught sawfish and sea turtles. Amendment 18A also revised the TAC framework procedures to reflect current practices and terminology.

Quota Monitoring

The deep-water grouper (yellowedge, speckled hind, snowy, warsaw, and misty) commercial fishery was closed on June 27, 2006. The tilefish commercial fishery was closed on July 22, 2006.

Neither the shallow-water grouper (red, gag, black, red hind, rock hind, yellowfin, yellowmouth, and scamp) commercial fishery or the red grouper commercial fishery reached its quota during 2006.

Coastal Migratory Pelagics Fisheries: King and Spanish Mackerel

Quota Monitoring

- In 2006, the commercial fishery for king mackerel in the western zone of the Gulf of Mexico closed on October 6.
- The commercial gill net fishery for king mackerel in the southern Florida West Coast closed on March 7, 2006.
- The commercial hook-and-line fishery for king mackerel in the Florida East Coast subzone did not reach its quota.
- 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 in February of 2006, and closed on March 12, 2006.
- 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 in November, but did not meet its quota in 2006.

PROTECTED RESOURCES DIVISION

Biological Opinions

- Completed a biological opinion for the Mobile District COE regarding dredging operations and its impact on Gulf sturgeon critical habitat in East Pass at Destin, Florida.

- Completed a biological opinion for the Mobile District COE regarding the disposal of concrete rubble materials and its impact on Gulf sturgeon critical habitat in the Mississippi Sound, Hancock and Harrison Counties, Mississippi.
- Completed a biological opinion for the Jacksonville District COE regarding a nearshore restoration project to create oyster reef breakwaters, emergent marsh, and seagrass beds and its impact on Gulf sturgeon critical habitat in Pensacola Bay, Escambia County, Florida.
- Completed a biological opinion for the USCG, FEMA, and the Mobile District COE regarding the Mississippi Hurricane-Katrina Coastal Debris Removal.
- Completed a biological opinion regarding “The Continued Authorization of Shrimp Trawling as Managed under the Fishery Management Plan for the Shrimp Fishery of the Gulf of Mexico.”
- Completed a Temporary Regulation Extending the Authorization for Use of Restricted Tow Times in Lieu of TEDs by Shrimp Trawlers in Alabama, Mississippi, and Louisiana.
- Renewed the Florida Fish and Wildlife Conservation Commission’s Endangered Species Act Section 6 Cooperative Agreement.
- Established the Southeast Regional Office’s Quality Assurance and Quality Control Procedures for ESA Section 7 Consultations.
- Issued authorization to fish with a Turtle Excluder Device utilizing a flat bar to compare shrimp catch rates and retention efficiency with that of TEDs utilizing standard pipe or solid rod in federal waters of the Gulf of Mexico off the Florida coast.
- Established regional guidance on vessel strike avoidance measures for protected species (threatened and endangered species, and marine mammals) in southeast U.S. waters.
- Initiated the 5-Year Review for Johnson’s Seagrass.
- Published the draft Smalltooth Sawfish Recovery Plan.
- Completed the ESA listing process for elkhorn and staghorn corals.
- Developed a Recovery Team for elkhorn and staghorn corals.
- Registered approximately 21,580 fishermen under the Marine Mammal Authorization Program in the Gulf and South Atlantic.
- Completed and issued the Southeastern Marine Mammal Stranding Directory.
- Established regional criteria for stranding agreement holders participating in the Marine Mammal Health and Stranding Response

program, in collaboration with national MMHSRP personnel, as well as issued new Stranding Agreements.

- Increased efforts to inform the public of the harmful impacts of feeding and swimming with wild dolphin populations in the panhandle of Florida and Nokomis, Florida, by the posting of three billboards.
- Finalized the consensus plan for the Key West recognition and education program for safe wildlife viewing.

HABITAT PROTECTION

The Habitat Conservation Division (HCD) used authorities from federal law and Executive Orders 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 regulatory 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.

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 2006, the HCD:

- Reviewed over 3400 individual proposals to construct in coastal waters or wetlands.
- Reviewed 42 large federally-constructed or sponsored projects.
- Recommended measures to protect living marine resources on over 558 proposals, which included detailed conservation recommendations on 165 EFH consultations initiated by federal action agencies.

- Completed reviews on 61 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 was related to federal regulatory programs. Considerable effort was devoted to mitigation bank development, mitigation guideline development, and general mitigation planning.
- Fulfilled requirements related to processing applications, permits and licenses for liquefied natural gas (LNG) facilities in the southeastern U. S. In 2006, 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 FY06, NOAA Fisheries undertook construction activities on two large-scale projects (Chaland Headland barrier shoreline restoration and Little Lake Shoreline Protection and Marsh Creation project) and completed engineering requirements and received \$27 million construction funding for the Pass Chaland to Grand Bayou Pass barrier shoreline project. Ongoing construction activities will directly protect, create and restore 1,400 acres of barrier island and intermediate marsh habitats at a total cost of about \$54 million. NOAA Fisheries also completed planning activities for the South Pecan Island Diversion project and received \$1.1 million to perform engineering and design activities for the project that would benefit over 1,000 acres of fisheries habitat. Additionally, planning activities were initiated for two projects that would benefit over 900 acres of saline marsh and gulf shoreline habitats; receipt of \$5.7 M to complete engineering and design activities is anticipated in early FY 07. In summary, NOAA Fisheries was directly responsible for restoration projects that potentially benefit, restore, or protect more than 3,300 acres of Louisiana wetlands.
- Continued assisting the Corps of Engineers with hurricane recovery efforts by providing expedited reviews of proposed restoration and emergency relief activities and engaging in long-

term restoration planning in response to Hurricanes Katrina and Rita.

- Revised SERO's EFH consultation guidance documents for the Gulf of Mexico to reflect significant changes to EFH and habitat area of particular concern designations resulting from the Gulf of Mexico Fishery Management Council's revised EFH generic amendment.
- Analyzed new EFH fishery management plans to develop outreach products identifying EFH by Gulf of Mexico ecoregion, managed species, and life stage.
- 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 13 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.
- 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 Southeast Region on the Alliance Federal Work Group and on the Regional Restoration and Conservation Team. The Gulf of Mexico Alliance was formed in 2004 to establish a 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 2006, 93 grants and cooperative agreements totaling \$168,389,016 were awarded to states, universities, non-profit/profit institutions, and individuals. Three fishery management councils in the Southeast U.S. received a total of \$5,551,234 in 2006 to conduct fisheries management activities in accordance with the Magnuson-Stevens Fishery Conservation and Management Act. NOAA Fisheries SERO awarded \$6,851,292 total to the Institute for Marine Mammals Studies, including \$4,567,528 for the Center for Marine Education and Research-Ocean Expo Complex, and \$2,283,764 for Atlantic bottlenose dolphin research studies in Mississippi and the north-central Gulf of Mexico-Phase V.

- The Southeast Area Monitoring and Assessment Program (SEAMAP) - \$1,140,160
- The State-Federal Cooperative Fisheries Statistics Program - \$1,156,319
- The Anadromous Fisheries Program - \$103,877
- The Interjurisdictional Fisheries Program - \$994,353
- Atlantic Coastal Fisheries Cooperative Management Act Program - \$715,546
- Atlantic Coastal Cooperative Statistics Program - \$235,038
- The Marine Fisheries Initiative (MARFIN) Program - Eight new awards totaling \$646,468 and fourteen previous multi-year awards were funded totaling \$1,095,038.
- The Saltonstall-Kennedy (S-K) Grant Program - The competitive program was not conducted in 2006 due to an insufficient funding allocation.
- Wild American Shrimp, Inc. received \$5,000,000 for marketing of Gulf Shrimp.

- The Cooperative Research Program - \$1,394,944
- Unallied Science Program - \$2,343,276
- Unallied Management Projects (Disaster Funds): \$127,765,816
- Cooperative Science and Education Project - \$2,804,401
- Auburn University received \$5,644,000 for the Proposed Development of the Center for Aquatic Resource Management.
- The Marine Environmental Sciences Consortium/Dauphin Island Sea Lab was awarded \$4,411,204 to construct the Center for Ecosystem-Based Fisheries Management.
- Virginia Polytechnic Institute and State University was awarded \$536,000 for their Recruiting, Training, and Research program.

SOCIO-ECONOMICS PROGRAM

The SERO Fisheries Social Science Branch provided review, assessment, and/or authorship services for 10 Gulf fishery Federal management plans and amendments including Reef Fish Amendment 18A (vessel monitoring systems), Reef Fish Amendment 25/Coastal Migratory Pelagics Amendment 17 (for-hire permit moratorium), Reef Fish Amendment 26 (red snapper IFQ), Reef Fish Amendment 27/Shrimp Amendment 14 (red snapper TAC and shrimp bycatch), Gulf Grouper Commercial Trip Limit Regulatory Amendment, Gulf Grouper Recreational Regulatory Amendment (red grouper bag limit), Shrimp Amendment 13 (limited access), shrimp BRD testing protocol and decertification rules, and the Generic Aquaculture Amendment. Participation continued on technical work groups, panels, and committees as part of the Fisheries Information Network, the GSMFC Socioeconomic Work Group, the GMFMC Socioeconomic Panel, the GMFMC Ecosystem Management Science and Statistics Committee, and the GMFMC Shrimp Effort Workgroup. Other activities in 2006 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-back programs, and a commercial shrimp fishery supply model.
- Provided input and advice on the LNG terminal open-loop cooling issue.

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

Wayne Swingle, Executive Director

2006 Activities and Accomplishments

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.

Stock Assessment Panels (SAPs)

Biologists who are trained in the specialized field of population dynamics, and who assess the available biological data and advise the Council on the status of stocks and level of allowable biological catch.

Socioeconomic Panel (SEP)

Sociologists, anthropologists, and economists who review the findings of the SAPs, and advise the Council of the social and economic impacts of setting total allowable catches at the various levels recommended by the SAPs.

The AP and SSC membership review process is conducted every two years to fill vacancies on panels and committees.

The Council also appointed members to a new Ad Hoc Shrimp Effort Management Advisory Panel to discuss and develop possible limited access management alternatives to help manage and optimize shrimp effort in the Gulf of Mexico.

FMPs

In 2006, 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 a regulatory Amendment that revises the certification criteria for bycatch reduction devices (BRDs) in the Gulf of Mexico shrimp fishery. The amendment creates a consistent certification criterion throughout the shrimp fishery that will enable increased flexibility, promote innovation, and allow for the certification of BRDs that achieve greater reductions in bycatch. The change is expected to increase efficiency in testing and characterizing BRD performance, as well as increase the types and number of BRDs approved for use in the shrimp fishery.

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 2006. 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.

The Council continued working on 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.

Scoping meetings to solicit public input on Shrimp Amendment 15 were held in January, and the Council considered management alternatives for the amendment, which addresses long-term bycatch reduction issues.

Reef Fish

The Gulf Council submitted to NOAA Fisheries for approval and implementation Amendment 18A to the Reef Fish FMP.

The Amendment was developed to resolve several issues impacting the reef fish fishery. Chief among them are the issues associated with monitoring and enforcement of existing regulations.

The amendment will prohibit vessels from retaining reef fish caught under the recreational size and possession limits when commercial reef fish harvests are onboard the vessel. It also adjusts the maximum number of crew members allowed onboard when a dually permitted vessel is taking a commercial reef fish trip in order to resolve a conflict with U.S. Coast Guard minimum crew size regulations. The use of reef fish for bait; is also prohibited.

Most significant, however, is the requirement of vessel monitoring systems (VMS) onboard all commercially permitted reef fish vessels, including charter vessels with commercial reef fish permits.

The amendment also updates the framework procedure for setting total allowable catch, and requires vessels with commercial or for-hire reef fish vessel permits to comply with sea turtle and smalltooth sawfish release protocols.

A second referendum on Reef Fish Amendment 26 – an IFQ system for red snapper – was held in early 2006, and receiving resounding approval from eligible voters. Eighty-seven percent (weighted) of those who returned a ballot voted in favor of the IFQ Amendment.

In March, the Council moved to submit Reef Fish Amendment 26 to the Secretary for implementation. The IFQ program is expected to become effective in January 2007.

The Council continued its work on joint Reef Fish Amendment 27/Shrimp Amendment 14 that 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.

Ten scoping meetings for Amendments 27/14 were held in January, attracting more than 500 people.

- The Council also began the process of developing three separate amendments to the reef fish fishery management plan. They include:
- Amendment 28, which will consider the possible allocation of red grouper;
- 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); and
- Amendment 30, which will address the overfishing of gag grouper, greater amberjack, and gray triggerfish.

Additionally, since SEDAR 9 concluded that vermilion snapper is neither overfished nor subject to overfishing, the Council asked staff to prepare analyses to determine if some of the regulations should be relaxed.

The Council also requested that the Southeast Fisheries Science Center address the issue of whether there is an acceptable level of goliath grouper harvest that may be taken to help determine the stats of that stock.

Finally, the Ad Hoc Grouper IFQ AP began meeting in early 2006, its charge to develop broad, general recommendations to the Council on the scope and general configuration of a dedicated privilege system (DAP) for the commercial grouper fishery.

Red Drum

The Council reviewed the Red Drum Stock Assessments and a request by the SEDAR Steering Committee that the SSC review the Red Drum data and recommend whether a benchmark assessment is appropriate. As a result, the Council recommended that the SSC determine whether existing data is adequate to complete a benchmark assessment. The Council also directed staff to seek funding for replicating the red drum tag and recapture study.

Coastal Migratory Pelagics

The commercial gillnet fishery for king mackerel was closed, and trip limits in the hook-and-line commercial king mackerel fishery were adjusted.

The Council initiated an amendment to separate the joint CMP FMP into two – Gulf and South Atlantic.

The Council also reviewed the recommendations of the Joint South Atlantic Fishery Management Council/Gulf of Mexico Fishery Management Council Mackerel Committee on the mixing of the Gulf and South Atlantic king mackerel stocks. Further action was deferred until next year.

SEDAR

A number of stock assessment workshops were held as part of the Southeast Data Assessment and Review (SEDAR) process. They include Data and Assessment Workshops and a Review workshop for gag grouper, Data and Assessment workshops for red grouper, a Review Workshop for greater amberjack, vermilion snapper, and gray triggerfish, and two Steering Committee meetings.

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.

Habitat Protection

The Council filed with the Department of Transportation (USCG) its objections to the LNG permits for Beacon Port and Compass Point, Louisiana, and for the Main Pass Energy Hub.

Ecosystems

The Ecosystem SSC held two meetings via conference call to plan for an Ecosystem Modeling Workshop.

The Council approved a request from the Ecosystem SSC for additional funding to cover the cost of contracting with up to three primary investigators. Staff issued a Request for Proposals, to which there was no response. Council agreed the workshop should proceed without outside investigators.

The Council also approved the use of ecosystem funds to hire an intern to organize and make available Council documents as ecosystem-related metadata.

Council staff continued with the compilation of an annotated list of agencies and organizations involved in ecosystem related data collection, research, or policy level activities for the Gulf of Mexico.

Other

In early 2006, the Council implemented open public comment sessions during each Council meeting to provide members of the public an opportunity to address the Council on issues and ideas that may not necessarily be under Council consideration.

The Council, in coordination with NOAA Law Enforcement held a series of IFQ training workshops that provided stakeholders and dealers with the information necessary to use the red snapper IFQ system expected to go online in January 2007. The workshops also gave potential system users an opportunity to provide input, as well as receive answers to IFQ related questions.

Council staff held a series of Fisher Forums - public information workshops – in order to reach out to stakeholders and provide a forum in which they could share ideas, ask questions, and comment on issues pertaining to fisheries management

UNITED STATES FISH AND WILDLIFE SERVICE

Douglas J. Frugé, Gulf Coast Fisheries Coordinator

Personnel of the US Fish and Wildlife Service (FWS) attended the Gulf States Marine Fisheries Commission (GSMFC) spring (San Antonio, Texas, March 13-16) and fall (New Orleans, Louisiana, October 23-16) semi-annual meetings. Participation included meetings of the Anadromous Fish and Habitat 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 in most sessions at both meetings. Other FWS participants included Columbus Brown, the Special Assistant to the FWS Southeast Regional Director for Fishery Management Commissions, Councils and the Gulf of Mexico Program. Doug Frugé chaired the Habitat Subcommittee meeting on March 13 and the Anadromous Fish and Habitat subcommittee meeting on October 23.

The Gulf Coast Fisheries Coordination Office (FCO) coordinated during the month of August with the GSMFC and FWS Southeast Regional and Washington offices regarding inviting the FWS Director to the spring 2007 GSMFC meeting. However, the Director had a conflict with the planned meeting dates.

Besides participation in GSMFC meetings, numerous FWS activities conducted by a number of regional and field offices throughout 2006 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 Fisheries, Habitat Protection/Enhancement, Federal Assistance, Law Enforcement and Public Outreach and Education.

ANADROMOUS FISHERIES

Striped Bass Fishery Management Plan Revision

During 2006 the FWS continued cooperative participation with the GSMFC and the Gulf states in finalizing the revision of the Striped Bass Fishery Management Plan for the Gulf of Mexico (Striped Bass FMP) Most of this activity was centered in the Gulf Coast FCO, which is co-located with the GSMFC in Ocean Springs. Doug Frugé continued serving as chair of the Striped Bass Technical Task Force (TTF), the GSMFC entity working on the revision. Gulf Coast FCO time was expended during January 9-24 in review and editing the draft plan,

which was the last major review of the document, although there were a few other instances during the year that required Doug Frugé's attention, with respect to completion of the document. The GSMFC approved the final FMP revision titled, Striped Bass Fishery of the Gulf of Mexico: A Regional Management Plan, at its meeting in San Antonio, Texas on March 16. Doug Frugé discussed aspects of tracking progress on action items in the Plan with GSMFC staff on August 28 and 30. The Gulf Coast FCO sent a notice to a list of FWS and non-FWS personnel on November 30 regarding availability of copies of the revised FMP. The office directly distributed copies to a number of requestors and forwarded other requests to the GSMFC.

Anadromous Fish Subcommittee

Because the members of the GSMFC's Anadromous Fish Subcommittee formed the core of the TTF charged with revising the Striped Bass FMP, the Subcommittee had been essentially devoting all of its time to completion of the FMP revision since January 2001, when the drafting of that document formally began. Because of this, the Subcommittee had not met as such since the spring meeting of the GSMFC in Brownville, Texas on March 13, 2001.

Although Doug Frugé, as chairman of the Subcommittee, had coordinated with members regarding the possibility of holding a Subcommittee meeting in conjunction with the Morone workshop of the Apalachicola-Chattahoochee-Flint (ACF) Rivers Striped Bass Technical Committee to be held February 6-7 in Apalachicola, Florida, that venue did not work out. However, a meeting of the Subcommittee was held at the GSMFC meeting in New Orleans, Louisiana on October 23 with Doug Frugé as chair.

Apalachicola-Chattahoochee-Flint (ACF) 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 Technical Committee (TC), which is composed of representatives of the states of Alabama, Florida and Georgia as well as the FWS. The TC manages the 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 National Fish Hatchery (NFH) and Fisheries Technical Center (FTC), Georgia; and Welaka NFH, Florida) attended the annual Morone workshop sponsored by the TC in Apalachicola, Florida on February 6-7.

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; Warm Springs NFH; Panama City FRO; and Southeast Region Fisheries Office) as well as the states of Alabama, Florida, Georgia and Mississippi, approximately 607,300 Phase I and 22,700 Phase II Gulf race striped bass fingerlings were stocked within the species' historic range in Gulf coastal rivers during the 2006 stocking year (includes early 2007) as part of the multi-agency anadromous striped bass restoration program in the Gulf. Of these fingerlings, NFHs grew and stocked approximately 66,400 (11%) of the Phase Is and all 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 a contract with the New York University School of Medicine and work being done by the Warm Springs FTC for striped bass broodfish genetics screening during the 2006 spawning season. 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 developing 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. All broodfish collected in 2006 were screened for CWTs, and otoliths from year classes 2001 and later were analyzed for OTC marks. The project will continue through the 2009 broodfish season followed by a final report with stocking recommendations.

Other Striped Bass Restoration Activities

Gulf Coast FCO Office Assistant Cynthia Nix worked during August and September to scan technical references on striped bass into Adobe Acrobat files for archiving in the GSMFC library. Many of these reports were provided to the Gulf Coast Research Laboratory (GCRL) to assist with rebuilding the GCRL's technical report library on striped bass, which had been destroyed by Hurricane Katrina. Hard copies of selected reports were also provided to the GCRL.

Gulf Sturgeon Recovery Activities

The Baton Rouge FRO continued providing assistance to the Louisiana Department of Wildlife and Fisheries (LDWF) during 2006, in efforts to sample for and track sonic-tagged Gulf sturgeon in Lake Pontchartrain, Louisiana and Mississippi Sound as part of a study to determine population status and habitat use by the species in riverine and coastal waters. These efforts included field-sampling trips on May 23 and 25, June 6, 8 and 20, and August 9 and 30.

On January 4 the Gulf Coast FCO followed up with a fisherman regarding a report of Gulf sturgeon mortalities in the Pascagoula River. Also, during the year the LDWF proposed new regulations to prohibit the use of entangling nets in Louisiana's Florida Parish rivers (rivers draining into Lake Pontchartrain). The Baton Rouge FRO and Gulf Coast FCO discussed the proposal with LDWF and other FWS personnel and provided comments to the FWS Lafayette Ecological Services Field Office (ESFO) in Louisiana on a draft letter of comment on the proposal. The proposal was also discussed with staff of the GSMFC. The purpose of the proposed regulations was to reduce incidental take of Gulf sturgeon in those rivers. However, the regulations were ultimately not adopted though discussed at the GSMFC Anadromous Fish Subcommittee meeting in October; no action on the proposal was taken.

During 2006 the Lafayette ESFO received funds to help mitigate fish and wildlife resource impacts from Hurricane Katrina and used some of those funds to determine hurricane impacts to Gulf sturgeon populations in the Lake Pontchartrain Rivers. Following the hurricane, catch rates for Gulf sturgeon were greatly reduced, and sturgeon were no longer found in areas where they had been frequently captured prior to the storm. Telemetry equipment and flight time were provided to the LDWF to locate sturgeon tagged prior to and after the hurricane in an effort to see if sturgeon had relocated to areas previously not utilized or if the population was impacted by the hurricane. Location of potential spawning sites was also investigated. The Lafayette ESFO also entered into a cooperative agreement with the USGS Cooperative Fish and Wildlife Research Unit and Water Resources Division to help describe Gulf sturgeon habitats in the Lake Pontchartrain Basin.

The Panama City FRO sampled Gulf sturgeon populations in the Brothers, Escambia, Apalachicola, Ochlockonee and Choctawhatchee rivers and Escambia Bay in Florida and in the Alabama, Perdido, and Tombigbee rivers and Perdido and Mobile bays in Alabama using stationary and drift gill nets during 2006 to monitor populations to evaluate the success of recovery and management programs for the species. Standard data gathered included total length and weight, and fin tissue was collected from a representative sample of fish from each river system for a molecular genetics study being conducted by the University of Southern Mississippi. Each fish was tagged with a passive integrated transponder (PIT) and t-bar anchor tag.

Some fish were also implanted with radio and/or sonic telemetry tags in support of other studies.

The Panama City FRO continued sonic telemetry studies of Gulf sturgeon winter habitat use of coastal waters that were begun in 2003 and 2005, one of which was to identify potential impacts from Hurricane Ivan on coastal Gulf sturgeon foraging habitats. In 2006 more fish were found to be using habitat areas farther east near Panama City, perhaps due to habitat changes resulting from the 2004-2005 hurricanes.

During 2006 the Panama City FRO worked with NOAA Fisheries in monitoring beach nourishment dredge operations near Gulf Shores, Alabama, and Destin and Panama City Beach, Florida in accordance with the Endangered Species Act Section 7 Biological Opinion issued by that agency. In this work a commercial shrimp trawler was contracted to trawl while circling the operating dredge to determine the presence of sturgeon and other listed species, and the FWS provided tagging equipment, radio and sonic transmitters and orientation and training in handling and processing captured Gulf sturgeon.

The Panama City FRO also provided various forms of technical assistance to numerous other government agencies and organizations with Gulf sturgeon recovery activities. One of these included support and assistance provided to a Troy State University graduate student in a study of Gulf sturgeon resting areas in the Conecuh/Escambia River.

Personnel from a number of FWS offices attended the annual Gulf sturgeon informational and coordination workshop, held during 2006 at Stephen Foster State Park in White Springs, Florida on October 11-12.

Alabama Shad Restoration

The Alabama shad is an anadromous species native to the northern Gulf of Mexico from the Suwannee to the Mississippi Rivers 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 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 2006 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, USGS and other FWS personnel in developing a draft management plan for Alabama shad in the system.

Anadromous Fish Habitat Restoration

The FWS Ecological Services Field Offices (ESFO) located at: Daphne, Alabama; Jackson, Mississippi; Lafayette, Louisiana and Panama City, Florida implemented numerous aquatic habitat projects within the native ranges of Gulf anadromous fish species during 2006. 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. Most of these projects were funded through the FWS Partners for Fish and Wildlife and Coastal programs.

In 2004 the Panama City FRO conducted a float trip inspection of a portion of the Choctawhatchee River and identified four sites determined to be potentially posing high threats to Gulf sturgeon critical habitat. In 2006 FWS personnel met, in coordination with the Alabama Departments of Natural Resources and Agriculture, with landowners regarding these sites. The landowners were provided information regarding habitat conservation programs that could help to alleviate the identified problems.

Other 2006 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: habitat threats assessments of the Canoe Creek watershed in Florida; participating in an unpaved road inventory in south Alabama; leading a study to develop riparian reference reach and regional curves for predicting channel attributes in un-gaged streams in the coastal plain of Alabama to aid in channel restoration projects; a log jam removal proposal for the Escambia River; the Upper Clear Creek Restoration Project; the Murder Creek Restoration Project; the Swift Slough Assessment on the Apalachicola River; participation in a Regional Stream Restoration Guidelines Team; the St Vincent Wetland Restoration Project; the Tate's Hell Wetland Restoration Project; and the Laurel Hill Exotic Species Removal Project.

The Panama City FRO was also an active participant in numerous partnerships focused on watershed and aquatic habitat restoration, such as the Spring Creek Watershed Partnership and the Gulf Coastal Plain Ecosystem Partnership, a federal/state/private landowner partnership of over 1.3 million acres spanning six river watersheds in Florida and Alabama.

The Panama City FRO and ESFO continued efforts in 2006 to work with the US 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 populations. This included an ESA Section 7 consultation on the Interim Operating Plan for water management operations at the dam.

OTHER COASTAL FISHERIES

The Gulf Coast FCO reviewed and commented July 31 on a proposal by the GSMFC for funding through the Marine Fisheries Initiative (MARFIN) of the NOAA Fisheries Service for funding to pursue a study on the feasibility of aging blue crabs using lipofuscin analysis.

American Eel Petition for Listing under the Endangered Species Act

During 2004 the FWS and NOAA Fisheries Service were petitioned to list the American eel under the Endangered Species Act (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 on the species was initiated at that time and continued through 2006. The Gulf Coast FCO acquired data on eels entering Gulf of Mexico fisheries contained in the Marine Recreational Fisheries Statistical Survey and provided them to the status review team in November and also reminded members of the GSMFC Anadromous Fish Subcommittee to provide the status review team with any additional data on the eel as discussed at the Subcommittee meeting on October 23.

Fisheries Information Network

Doug Frugé was the FWS representative on the GSMFC's Fisheries Information Network (FIN) Committee and the FIN Administrative Subcommittee during 2006. John Galvez, of the South Florida FRO located in Vero Beach, represented the FWS at the FIN annual meeting at St. Petersburg, Florida during June 14-15.

Doug Frugé attended the special meeting of the S-FFMC in New Orleans, Louisiana on August 10 to review the 2007 work plan for the FIN and discuss funding issues regarding that program. He also participated in a conference call of the FIN Administrative Subcommittee on August 31 and arranged for Dr. Wilson Laney, FWS South Atlantic

Fisheries Coordinator, to participate in a FIN program review to be held during December 2006.

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 Corpus Christi, Texas (January 9-11), Mobile, Alabama (March 20-23), Tampa, Florida (June 5-7), Baton Rouge, Louisiana (August 14-17) and Galveston, Texas (November 13-15). Doug Frugé attended a meeting of the GMFMC Louisiana/Mississippi Habitat Advisory Panel in New Orleans, Louisiana on October 3.

Southeast Aquatic Resources Partnership

The FWS, in coordination with state fish and wildlife agencies in the southeastern United States, established the Southeast Aquatic Resources Partnership (SARP) in 2001 in order to better unify joint agency efforts in addressing 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 become a signatory to the SARP Memorandum of Understanding in 2003. The Gulf Coast FCO continued to provide advice and support during 2006 to the SARP Coordinator, who was appointed in late September 2005. Several FWS personnel attended SARP Steering Committee meetings in Nashville, Tennessee on April 18-19 and November 14-15. Doug Frugé and a number of other FWS personnel from various offices attended the first stakeholder workshop for developing the SARP's Southeast Aquatic Habitat Plan (SAHP) in Tuscaloosa, Alabama on October 11-12.

HABITAT PROTECTION/ENHANCEMENT

Doug Frugé served as chairman of the GSMFC's Habitat Subcommittee during 2006, chairing the March 13 and October 23 Subcommittee meetings.

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.

A total of 37 national wildlife refuges (NWR) 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.

The Gulf Coast FCO refined a list of fisheries species of importance in the Chassahowitzka NWR area of coastal Florida and provided it, along with comments on the draft Wildlife and Habitat Management Review for the refuge, to the FWS Southeast Region Refuge Biologist on August 24. As follow-up, the office produced a narrative on the smalltooth sawfish, a NOAA Fisheries candidate species for listing under the ESA, for inclusion in the Wildlife and Habitat Management Review document. The narrative was provided to the Regional Refuge Biologist on September 8.

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 through court actions and related activities.

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. The Tampa Bay Coastal Program specifically funded a number of projects focused on oyster reef establishment, marsh vegetative planting, coastal wetland restoration and hydrologic connection of estuarine habitats.

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. Two projects sponsored by

the Lafayette ESFO, the Delta Management at Fort St. Philip Project and the Freshwater Introduction South of Highway 82 Project were constructed in 2006. Those two projects resulted in the protection/creation of over 500 acres of coastal wetlands. 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.

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: on March 24, the proposed Beacon Port Liquefied Natural Gas (LNG) facility; and on November 29 a proposed project to dredge Cedar Bayou/Vinson Slough near Rockport, Texas in order to re-connect Mesquite Bay and the Gulf of Mexico.

On August 30 the Gulf Coast FCO discussed with GSMFC staff aspects of an effort by the GSMFC Habitat Subcommittee to address estuarine freshwater inflow issues and suggested a potential collaboration opportunity with the GMA.

Following passage of Hurricanes Katrina and Rita in August and September concerns surfaced regarding potential effects on aquatic habitats. The Baton Rouge FRO assisted the LDWF with follow-up sampling to investigate these effects on coastal habitats in the Pearl River and Big Mar, south of New Orleans near Caernarvon, Louisiana on September 19-20. The Gulf Coast FCO also coordinated with the FWS ESFOs in Lafayette, Louisiana and Jackson, Mississippi and with a professor at Mississippi State University on August 18 and 24 regarding potential work to be carried out with special funding received by those offices for habitat assessments related to the hurricanes. The Lafayette ESFO used some of this funding to help restore coastal areas in Louisiana and to conduct impact surveys. The office entered into a cooperative agreement with the Louisiana Department of Natural Resources to implement vegetative planting projects in southwestern Terrebonne Parish. Projects included shoreline plantings for erosion control, woody vegetative plantings, and interior marsh plantings.

The Baton Rouge and Panama City FROs were actively involved in monitoring and documenting occurrence of nonindigenous aquatic nuisance species in Gulf of Mexico rivers during 2006.

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 2006. However, the focus groups of the GMP, on which several other FWS personnel serve, were not active during 2006 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 of Mexico. 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 through conference calls among US Department of the Interior personnel involved in the GMA on August 10, the GMA Restoration Workgroup on August 23 and the GMA Federal Workgroup on August 24. He also attended the Action Plan Implementation Workshop in New Orleans, Louisiana on July 17-19. The Gulf Coast FCO provided review and comments on proposals submitted to the GMP for projects to help implement the GMA Governor's Action Agenda.

Mississippi River/Gulf of Mexico Watershed Nutrient Task Force

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 Gulf Coast FCO continued providing FWS representation on the CC. However, efforts during 2006 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 office did participate in conference calls of the CC on June 13 and 22 and August 24. The main focus of the Task Force during 2006 was work on an update and revision of the 2001 Gulf Hypoxia Action Plan. During August the Gulf Coast FCO developed data on FWS habitat restoration projects on private lands in the

Mississippi River basin that may have had nutrient reduction benefits ancillary to their primary purposes and provided the data to the CC on August 30 for use in the Action Plan re-assessment.

The Louisiana Hypoxia Working Group (LHWG) is a state-level committee formed to help implement the Action Plan of the Mississippi River/Gulf of Mexico Watershed Nutrient (Gulf Hypoxia) Task Force in Louisiana. The Baton Rouge FRO represented the FWS at meetings of the LHWG on January 11, October 30 and November 28 in Baton Rouge.

On June 1-2 Glenn Constant attended a symposium held by the Task Force's Lower Mississippi River Sub-Basin Committee in New Orleans, Louisiana and gave a poster presentation outlining a data assessment process for the proposed Atchafalaya Basin Integrated Data and Assessment System.

National Fish Habitat Initiative

Two proposals submitted to the SARP by the Land Trust for the Mississippi Coastal Plain (LTMCP) were reviewed by the Gulf Coast FCO on July 11 and comments provided to the FWS Southeast Region Fisheries Office. The two proposals involved restoration of coastal and instream habitats in the Pascagoula River watershed. The proposals were being considered for funding through the SARP as part of the National Fish Habitat Initiative (NFHI). On September 27 the LTMCP was notified that a decision had been made to fund their proposal for restoring coastal marsh habitat along Bennett Bayou, just north of the city of Moss Point, Mississippi in the amount of \$32,667. The Gulf Coast FCO was identified as the field point of contact for FWS partnership in the project. The Gulf Coast FCO and Panama City FRO submitted a number of projects for potential funding under the NFHI for Fiscal Year 2007 in October.

Sea Turtle Recovery

The FWS continued providing support for field operations on the eastern Mexico coast to protect the Kemps Ridley sea turtle nesting habitat located there. There were 12,060 Kemps Ridley sea turtle nests recorded on the Mexican beaches during 2006, 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 2006. In this program beach patrols are utilized to locate and protect nesting Kemps

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.

The Panama City ESFO through the Partners for Fish and Wildlife (PFW) Program initiated a project in 2005 to help provide financial incentives for beachfront property owners to convert existing external lighting to types causing less disorientation of hatchling sea turtles than do conventional lights. In 2006 installing sea turtle friendly lighting at various commercial and residential developments enhanced eleven miles of Florida coastal beach habitat.

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. 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, State Wildlife and North American Coastal Grant programs. Funding allocations and brief descriptions of the types of projects funded during federal Fiscal Year (FY) 2006 (October 1, 2005 - September 30, 2006) are described below.

Sport Fish Restoration Grants

In Alabama a total of \$962,095 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; and a variety of projects to gather various types of fisheries data, conduct public outreach, enhance habitat, conduct fish life history research, and maintain and improve

facilities and equipment used in conducting these programs.

A total of \$5,354,756 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; research on behavior, ecology and life history of 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 State's Sport Fish Restoration programs; inventorying, maintaining and planning for additional needs for boating access facilities; and developing a multispecies approach for improving assessment and management of estuarine and coastal sport fish stocks.

The LDWF received \$2,051,059 for marine sport fish restoration. Projects funded included: Sport Fish Restoration Program coordination and administration; stock assessment of various marine finfish species; identifying essential fish habitat in coastal waters; evaluating recreational fish species use of created wetlands in the Atchafalaya River delta; replacement of the existing concrete launch apron and the construction of a new boat ramp at Michel Landing in the lower Atchafalaya River basin; renovation of the North Pass Boat Landing; 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; tagging red drum to develop an alternative estimate of escapement in Barataria Bay; and providing technical guidance and review of proposed land and water development projects that could potentially impact fish and wildlife resources.

A total of \$647,727 was provided to the Mississippi Department of Marine Resources in FY 2006 for marine sport fish restoration efforts. Specific projects included: administering and coordinating the marine Sport Fish Restoration program; culturing, tagging and stocking striped bass fingerlings in Mississippi coastal rivers; 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; 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 \$3,609,104 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; and operation and maintenance of all field office facilities and equipment needed to support accomplishing the coastal fisheries monitoring and ecosystem management program.

Coastal Wetlands Grants

The State of Texas received \$653,300 under the Coastal Wetlands Grant Program in FY 2006 for Phase II of the North Deer Island Protection and Restoration plan, which will protect and restore over 135 acres of habitat associated with the island by securing 82 acres of habitat from erosion and restoring eight acres of estuarine marsh on North Deer Island. The State of Texas provided matching funds of \$350,000 and another \$167,000 was provided by private partners.

Clean Vessel Act Grants

Two Gulf States received funding under the Clean Vessel Act (CVA) in FY 2006 for coastal projects. This included \$41,250 awarded to the State of

Alabama to establish an additional coastal pumpout station at Dauphin Island Marina and to provide outreach regarding the pumpout program. The State of Florida received two separate grants totaling \$2,024,897 to construct/renovate 200 coastal pumpout facilities and conduct outreach activities regarding the program.

Boating Infrastructure Grant Program

Two Gulf States received funding in FY 2006 under the Boating Infrastructure Grant Program. The State of Louisiana received \$74,985 to construct a 90-ft x 90-ft transient marina at Old Ferry Landing Marina on the Gulf Intracoastal Waterway where few facilities currently exist. The State of Texas received two grants totaling \$550,000 to provide 48 new transient boater slips at the Corpus Christi marina, one of only two full-service marinas on the Gulf Coast in Texas and to expand a transient boat dock by 135 linear feet to increase transient boater access at Lighthouse Point Beach at Port Lavaca.

North American Coastal Grant Program

Two Gulf States received funding in FY 2006 under the North American Coastal Grant Program. The State of Louisiana received \$1,000,000 for the Maurepas/Pontchartrain Habitat Conservation Effort II. The State of Texas received \$1,000,000 for coastal prairie wetlands restoration and acquisition.

State Wildlife Grants

Two states received funding under the State Wildlife Grants Program for work related to coastal fisheries resources. These included \$416,000 to the State of Alabama for a status survey of Gulf sturgeon and Alabama sturgeon in the Lower Mobile River basin and Perdido River drainage. The State of Florida received funding for five projects, including: \$279,242 for an assessment of the value of small tidal streams, creeks, and backwaters as critical habitats for nekton in the Tampa Bay watershed, \$493,628 for a study of the potential role of harmful algal bloom toxins in bird mortalities; \$173,531 to study the ecological effects of harmful algal blooms on wildlife communities associated with submerged aquatic vegetation; \$44,800 to study pathway risk analysis for exotic marine and estuarine species in Florida's pet trade; and \$71,060 to determine status, trends, and habitat use by estuarine and marine fishes of greatest conservation need in Florida.

LAW ENFORCEMENT

Officers of the FWS Division of Law Enforcement were involved in several cases and activities involving enforcement of laws affecting or beneficial to conservation of Gulf of Mexico fisheries and other

aquatic resources. Highlights of some of these in 2006 included the following actions:

- A Mississippi seafood company involved in the illegal harvest and interstate sale of oysters paid \$20,554 in fines, restitution, and special assessments for felony Lacey Act violations.
- Service officers in Florida conducted 29 on-the-water enforcement details to uphold boating speed limits and protect endangered manatees from boat strikes. Officers cited 687 boaters for ignoring posted speed limits and made numerous "educational stops" to advise boaters about protections for manatees.
- Outreach to aquaculture businesses using the port of Tampa, Florida improved compliance with wildlife trade laws and regulations.
- The National Fish and Wildlife Forensics Laboratory, located in Ashland, Oregon, helped develop crime scene investigation protocols for use underwater in investigating damage to coral reefs for use by resource managers, environmental assessment specialists, criminal investigators, and litigators.

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.

The Gulf Coast FCO reviewed and commented July 27 on a proposal by the GSMFC to the GMA/GMP for funding to complete an educational video on Gulf of Mexico habitats that had been proposed by the GSMFC Habitat Subcommittee.

Information was gathered on September 29 on FWS habitat restoration projects to be submitted to the GSMFC for inclusion on the GSMFC Habitat website as examples of projects that may benefit coastal habitats.

The Panama City FRO assisted the FFWCC with a "Kids Fishing Clinic" at the Bay County pier in Panama City, Florida which drew over 400 children, adults and volunteers.

The Panama City FRO provided assistance to a Canadian film production company for an episode of *Mystery Hunters*, an educational program on the Discovery Channel. The program focused on the Gulf sturgeon. The office also provided photographs, fish tagging equipment, fish tags and telemetry tags for a hands-on display in the educational outreach

section of the Georgia Aquarium in Atlanta focused on Gulf sturgeon conservation.

The Panama City FRO presented information on anadromous fish, aquatic habitat restoration and recovery of Gulf sturgeon to numerous civic and school groups through presentations and at information booths at outreach events and festivals. Copies of the Gulf sturgeon video and brochure as well as the Gulf striped bass brochure were provided to numerous schools and other organizations as well.

Financial Statements

**Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi**

December 31, 2006

PILTZ,
WILLIAMS,
LAROSA
&
COMPANY

CERTIFIED PUBLIC ACCOUNTANTS
A Professional Association

Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

Financial Statements

December 31, 2006

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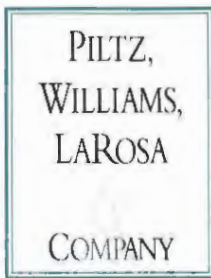
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Independent Auditors' Report

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, 2006, 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 an opinion 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 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 opinion.

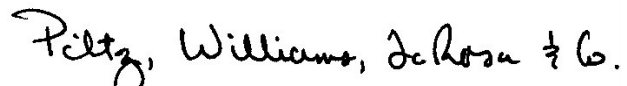
As described in Note A, these financial statements were prepared on the modified cash basis of accounting, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position—modified cash basis of the governmental activities, each major fund and the aggregate remaining fund information of Gulf States Marine Fisheries Commission as of December 31, 2006, 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 June 26, 2007 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 and grant agreements. 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 on pages 3 through 5 and the Budgetary Comparison Schedule and corresponding notes on pages 19 and 20 are not a required part of the basic financial statements but are supplementary information required by the Governmental Accounting Standards Board. 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 required by U.S. Office of Management and Budget Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, is presented for purposes of additional analysis and is not a required part of the basic financial statements. 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.


Certified Public Accountants

Biloxi, Mississippi
June 26, 2007

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, 2006. 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 \$692,728 as of December 31, 2006.

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, 2006

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The following table presents a summary of the Commission's net assets for the year ended December 31, 2006.

Current assets	\$ 293,424
Noncurrent assets	498,285
Total assets	<u>791,709</u>
Current liabilities	77,389
Noncurrent liabilities	21,592
Total liabilities	<u>98,981</u>
Net assets	
Investment in capital assets, net of related debt	350,821
Unrestricted	341,907
Total net assets	<u>\$ 692,728</u>

Changes in net assets – The Commission's total revenues for the year ended December 31, 2006 were \$9,069,255. The total cost of all programs and services was \$8,765,922. The following table represents a summary of the changes in net assets for the year ended December 31, 2006.

Revenues	
Program revenues	\$ 9,022,694
General revenues	46,561
Total revenues	<u>9,069,255</u>
Expenses	
Programs	8,512,900
General and administrative	253,022
Total expenses	<u>8,765,922</u>
(Increase) in net assets	<u>\$ 303,333</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, 2006

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Capital Asset Administration

At the end of the current year the Commission had \$445,421, net of accumulated depreciation invested in facilities, equipment and automobiles. This amount reflected a net increase (including additions, deletions and depreciation deductions) from the prior year of \$49,073. During the current year the Commission expended \$155,412 for capital additions. Of this amount, all monies were expended for automobiles, computers and office equipment.

Section II
Financial Statements

Gulf States Marine Fisheries Commission
Statement of Net Assets - Modified Cash Basis
December 31, 2006

Assets	Governmental Activities
Current assets	
Cash in bank	\$ 293,424
Noncurrent assets	
Post Employment Health Plan investment account	52,864
Property and equipment, net of accumulated depreciation	445,421
Total noncurrent assets	<u>498,285</u>
Total assets	<u>791,709</u>
Liabilities	
Current liabilities	
Payroll taxes payable	3,166
Section 125 cafeteria plan	1,215
Notes payable, due within one year	73,008
Total current liabilities	<u>77,389</u>
Noncurrent liabilities	
Notes payable, due beyond one year	<u>21,592</u>
Total liabilities	<u>98,981</u>
Net assets	
Investment in general fixed assets, net of related debt	350,821
Unrestricted	341,907
Total net assets	<u><u>\$ 692,728</u></u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Activities - Modified Cash Basis
For the Year Ended December 31, 2006

	Expenses	Charges for Services	Operating Grants and Contributions	Net (Expense) Revenue and Change in Net Assets Governmental Activities
Functions/Programs				
Primary government:				
Programs				
Collection & dissemination of commercial and recreational fisheries information	\$ 5,831,302	\$ -	\$ 6,017,420	\$ 186,118
Interjurisdictional fisheries management	251,508	-	306,313	54,805
Coordination of recreational fisheries programs	199,287	-	235,775	36,488
Collection & dissemination of fishery - independent data and information	125,495	-	137,023	11,528
Review and formation of habitat information	47,765	-	47,267	(498)
Study of aquatic nuisances	47,010	-	56,352	9,342
Fish and wildlife support services	64,818	-	61,295	(3,523)
Billfish research	1,034,036	-	1,042,099	8,063
Louisiana seafood exposition	104,009	-	105,000	991
Emergency disaster recovery program	731,346	-	769,204	37,858
Other	76,324	-	78,466	2,142
Total	8,512,900	-	8,856,214	343,314
General and Administrative				
Local administration	222,811	23,980	112,500	(86,331)
Council activities	30,211	-	30,000	(211)
Total	253,022	23,980	142,500	(86,542)
Total primary government	\$ 8,765,922	\$ 23,980	\$ 8,998,714	256,772
General revenues				
Other income				14,347
Post employment health plan revenue				6,826
Gain (loss) on sale of assets				2,500
Interest income				18,504
Unrealized gain (loss) on investments				4,384
Total general revenues				46,561
Change in net assets				303,333
Net assets, beginning				389,395
Net assets, ending				\$ 692,728

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Assets, Liabilities and Fund Balances-Cash Basis
Governmental Funds
December 31, 2006

	General Fund	Special Revenue Funds			Total Governmental Funds
		RECFIN/ COMFIN Fund	Billfish Research Fund	Other Funds	
Assets					
Current assets					
Cash in bank	\$ 293,424	\$ -	\$ -	\$ -	\$ 293,424
Noncurrent assets					
PEHP investment account	52,864	-	-	-	52,864
Total assets	\$ 346,288	\$ -	\$ -	\$ -	\$ 346,288
Liabilities					
Current liabilities					
Payroll taxes payable	\$ 3,166	\$ -	\$ -	\$ -	\$ 3,166
Section 125 cafeteria plan	1,215	-	-	-	1,215
Total liabilities	4,381	-	-	-	4,381
Fund Balances					
Fund balance - reserved for investments	52,864	-	-	-	52,864
Fund balance - unreserved	289,043	-	-	-	289,043
Total fund balances	341,907	-	-	-	341,907
Total liabilities and fund balances	\$ 346,288	\$ -	\$ -	\$ -	\$ 346,288

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, 2006

9

Total fund balances - governmental funds	\$ 341,907
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	445,421
Notes payable are not due and payable in the current period expenditures and therefore are not reported in the funds	<u>(94,600)</u>
Total net assets - governmental activities	<u><u>\$ 692,728</u></u>

See Notes to Financial Statements.

Statement of Revenues, Expenditures and Changes in Fund Balances - Cash Basis

Governmental Funds

For the Year Ended December 31, 2006

	Special Revenue Funds				Total Governmental Funds
	General Fund	RECFIN/ COMFIN Fund	Billfish Research Fund	Other Funds	
Revenues:					
Member state appropriation	\$ 112,500	\$ -	\$ -	\$ -	\$ 112,500
Other income	12,346	-	-	2,000	14,346
Interest income	18,504	-	-	-	18,504
Rent income	9,900	-	-	-	9,900
Lease income	261	-	-	-	261
Post employment health plan revenue	6,826	-	-	-	6,826
Grant income	-	6,017,420	1,042,099	1,826,696	8,886,215
Registration fees	14,080	-	-	-	14,080
Proceeds from sale of assets	2,500	-	-	-	2,500
Unrealized gain on investments	4,384	-	-	-	4,384
Totals	<u>181,301</u>	<u>6,017,420</u>	<u>1,042,099</u>	<u>1,828,696</u>	<u>9,069,516</u>
Expenditures					
Personal services and benefits	77,910	476,273	33,462	489,938	1,077,583
Professional services	985	5,018,919	1,000,205	885,435	6,905,544
Other purchased services	27,190	299,319	15	253,391	579,915
Supplies and materials	3,929	36,791	353	49,271	90,344
Capital outlay	147	64,975	-	71,808	136,930
Debt service:					
Principal	27,852	-	-	1,435	29,287
Interest	6,459	-	-	-	6,459
Totals	<u>144,472</u>	<u>5,896,277</u>	<u>1,034,035</u>	<u>1,751,278</u>	<u>8,826,062</u>
Excess (deficiency) of revenues over (under) expenditures	<u>36,829</u>	<u>121,143</u>	<u>8,064</u>	<u>77,418</u>	<u>243,454</u>
Other financing sources (uses)					
Interfund loans	205,904	(121,143)	(8,064)	(76,697)	-
Operating transfers in	991	-	-	-	991
Operating transfers out	-	-	-	(991)	(991)
Total other financing sources (uses)	<u>206,895</u>	<u>(121,143)</u>	<u>(8,064)</u>	<u>(77,688)</u>	<u>-</u>
Net change in fund balances	243,724	-	-	(270)	243,454
Fund balance - beginning	98,183	-	-	270	98,453
Fund balance - ending	<u>\$ 341,907</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 341,907</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, 2006

11

Net changes in governmental fund balances \$ 243,454

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. Capital assets purchased amounted to \$136,930 and the depreciation expense amounted to \$106,338. 30,592

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. 29,287

Change in net assets of governmental activities \$ 303,333

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.

Billfish Fund – This is the fund that is the Commission's program to support research and data collection on billfish that enhances billfish conservation, management, and rebuilding efforts, and provides updated information for stock assessments.

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)

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 \$500 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 a bank account at one financial institution. The account balance at December 31, 2006 may be shown as follows:

<u>Description</u>	<u>Carrying Amount</u>	<u>Bank Balance</u>
Regular accounts	<u>\$ 293,399</u>	<u>\$ 436,053</u>

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

The bank balances at December 31, 2006 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>336,053</u>
Total bank balances	<u>\$ 436,053</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 1 – 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 but not in the Commission's name.

Investment Type	Category			Reported Amount	Fair Value
	1	2	3		
Van Kampen Equity & Income Fund Cl. A, 4,358.804 shares		X		\$ 39,753	\$ 39,753
Federal Home Loan Mortgage Bond, due 8/15/22, 5.5%		X		4,770	4,770
Tax-Free Money Market Fund		X		<u>8,341</u>	<u>8,341</u>
Totals				<u>\$ 52,864</u>	<u>\$ 52,864</u>

Gulf States Marine Fisheries Commission
Notes to Financial Statements
(Continued)

Note D – Property, Plant and Equipment

The Commission's land, depreciable property and equipment may be stated as follows:

	Balance 12/31/05	Additions	Deletions	Balance 12/31/06
Restricted				
Vehicles	\$ 53,531	\$ 84,671	\$ 53,532	\$ 84,670
Office equipment	1,035,554	70,741	10,038	1,096,257
Totals	1,089,085	155,412	63,570	1,180,927
Unrestricted				
Land	20,000			20,000
Buildings	182,817			182,817
Vehicles	25,700		25,700	
Office equipment	115,393		33,763	81,630
Totals	343,910		59,463	284,447
Less accumulated depreciation				
Restricted	887,746	87,938	63,570	912,114
Unrestricted	148,902	18,400	59,463	107,839
Totals	1,036,648	106,338	123,033	1,019,953
Governmental activities				
Net property and equipment:				
Restricted	201,339	67,474		268,813
Unrestricted	195,008	(18,400)		176,608
Totals	\$ 396,347	\$ 49,074	\$	\$ 445,421

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. Details of the financing are as follows:

Original loan amount	\$ 122,448
Amount outstanding	\$ 60,801
Interest rate	6.0%
Payment terms	59 monthly payments of \$1,039, 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)

During the prior year, 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	\$ 16,754
Interest rate	7.5%
Payment terms	60 monthly payments of \$614
Collateral	Xerox copier
Purchase option	Ownership at end of lease

During the current year, the Commission acquired a vehicle. The financing details are as follows:

Original loan amount	\$ 18,480
Amount outstanding	\$ 17,045
Interest rate	6.30%
Payment terms	36 monthly payments of \$565
Collateral	2007 GMC Sierra

	Beginning 01/01/06	Additions	Deletions	Ending 12/31/06	Amounts Due Within One Year
Governmental activities					
Notes	\$ 74,358	\$ 18,480	\$ 14,992	\$ 77,846	\$ 66,679
Capital leases	<u>31,049</u>		<u>14,295</u>	<u>16,754</u>	<u>6,329</u>
Total governmental activities	<u>\$ 105,407</u>	<u>\$ 18,480</u>	<u>\$ 29,287</u>	<u>\$ 94,600</u>	<u>\$ 73,008</u>

The annual requirements to pay principal and interest on the notes and capital leases outstanding at December 31, 2006 follow:

<u>December 31,</u>	Governmental Activities			
	Notes		Capital Leases	
	Principal	Interest	Principal	Interest
2007	\$ 66,679	\$ 1,506	\$ 6,329	\$ 1,042
2008	6,259	526	6,820	551
2009	<u>4,908</u>	<u>130</u>	<u>3,605</u>	<u>80</u>
Totals	<u>\$ 77,846</u>	<u>\$ 2,162</u>	<u>\$ 16,754</u>	<u>\$ 1,673</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, 2006 was \$51,722.

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.

At December 31, 2006 seven (7) employees would qualify for this benefit. Assuming that all seven (7) separated from service at that date, and utilizing their current sick leave hours and rates of pay then the computed value is \$47,598. During the current year the Commission invested \$6,826 to continue funding this benefit. This investment is shown on the Statement of Net Assets – Modified Cash Basis at its current market value of \$52,864.

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, 2006

	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	8,531		8,531	12,346	2,000	14,346	5,815
Interest income	7,000		7,000	18,504		18,504	11,504
Rent income	7,200		7,200	9,900		9,900	2,700
Lease income			-	261		261	261
Post employment health plan revenue			-	6,826		6,826	6,826
Grant income		5,678,327	5,678,327		8,886,215	8,886,215	3,207,888
Registration fees	12,000		12,000	14,080		14,080	2,080
Transfers in			-	991		991	991
Gain on sale of assets			-	2,500		2,500	2,500
Unrealized gain (loss) on investments			-	4,384		4,384	4,384
Totals	147,231	5,678,327	5,825,558	182,292	8,888,215	9,070,507	3,244,949
Personal costs							
Salaries	67,469	759,275	826,744	59,958	748,305	808,263	(18,481)
Payroll taxes	5,788	60,658	66,446	7,775	55,234	63,009	(3,437)
Health insurance	7,565	144,726	152,291	5,439	142,324	147,763	(4,528)
Retirement expense	4,844	55,044	59,888	4,107	47,615	51,722	(8,166)
Post employment health plan expense	-	-	-	631	6,195	6,826	6,826
Totals	85,666	1,019,703	1,105,369	77,910	999,673	1,077,583	(27,786)
Maintenance/Operations							
Facilities	18,000	7,200	25,200	18,000	9,900	27,900	2,700
Office supplies	3,000	18,609	21,609	3,146	29,423	32,569	10,960
Postage	1,000	13,630	14,630	671	11,723	12,394	(2,236)
Travel - committee	-	213,503	213,503	-	195,636	195,636	(17,867)
Travel - staff	9,000	29,013	38,013	6,896	93,639	100,535	62,522
Telephone	1,500	23,225	24,725	2,397	32,456	34,853	10,128
Office equipment	3,000	28,369	31,369	147	69,289	69,436	38,067
Copying expense	2,000	26,934	28,934	310	25,006	25,316	(3,618)
Printing expense	500	1,575	2,075	-	12,273	12,273	10,198
Meeting costs	12,000	40,300	52,300	5,242	40,277	45,519	(6,781)
Subscriptions & dues	500	600	1,100	1,808	1,098	2,906	1,806
Automobile expenses	1,000	7,700	8,700	(197)	75,485	75,288	66,588
Insurance	2,000	16,957	18,957	2,788	18,052	20,840	1,883
Maintenance	1,265	86,675	87,940	971	141,734	142,705	54,765
Professional expenses	800	244,837	245,637	985	244,513	245,498	(139)
Contractual	-	3,883,088	3,883,088	-	6,660,046	6,660,046	2,776,958
Utilities	3,700	9,422	13,122	4,575	12,246	16,821	3,699
Janitorial	2,300	6,987	9,287	2,413	7,687	10,100	813
Courtesies	-	-	-	100	-	100	100
Principal and interest on notes	-	-	-	16,310	1,435	17,745	17,745
Transfers out	-	-	-	-	991	991	991
Totals	147,231	5,678,327	5,825,558	144,472	8,682,582	8,827,054	3,001,496
Excess of revenues over expense	\$ -	\$ -	\$ -	\$ 37,820	\$ 205,633	\$ 243,453	\$ 243,453

Gulf States Marine Fisheries Commission
Budgetary Comparison Schedule
For the Year Ended December 31, 2006
(Continued)

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.

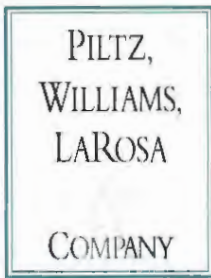
Gulf States Marine Fisheries Commission
Schedule of Expenditures of Federal Awards – Cash Basis
For the Year Ended December 31, 2006

Federal Grantor / Program Title	Catalog of Federal Domestic Assistance	Federal Expenditures
U.S. Department of Interior		
Aquatic Nuisance	15.608	\$ 47,051
Sports Fish Restoration Program	15.605	206,318
Total U. S. Department of Interior		<u>253,369</u>
U.S. Department of Commerce		
Interjurisdictional Fisheries Management Plan	11.407	277,610
Distribution of Bottom Habitat Information in the Gulf of Mexico	11.433	76,351
Recreational Fisheries Information Network (RECFIN) and Commercial Fisheries Information Network (COMFIN)	11.434	5,896,277
Southeast Area Monitoring and Assessment Program (SEAMAP)	11.435	126,073
Billfish Research	11.454	1,034,036
Emergency Disaster Recovery Program	11.454	769,038
Habitat Conservation	11.463	47,765
Total U. S. Department of Commerce		<u>8,227,150</u>
Total expenditures of federal awards		<u><u>\$ 8,480,519</u></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.

Section IV

Reports on Compliance and Internal Control



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Independent Auditors' Report
On the Compliance and Internal Control over Financial Reporting
Based on an Audit of the 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, 2006, which collectively comprise Gulf States Marine Fisheries Commission's basic financial statements and have issued our report thereon dated June 26, 2007. 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.

Compliance

As part of attaining 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*.

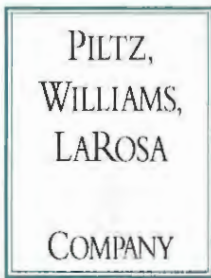
Internal Control Over Financial Reporting

In planning and performing our audit, we considered Gulf States Marine Fisheries Commission's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide an opinion on the internal control over financial reporting. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control that might be material weaknesses. A material weakness is a reportable condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over financial reporting and its operation that we consider to be material weaknesses.

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, Jackson & Co.
Certified Public Accountants

Biloxi, Mississippi
June 26, 2007



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Independent Auditors' 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, 2006. 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 audits.

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, 2006. However, the results of our audit procedures disclosed an instance of noncompliance with those requirements, which are required to be reported in accordance with OMB Circular A-133 and which are described in the accompanying schedule of findings and questioned costs as Item 06-1.

Internal Control Over Compliance

The management of Gulf States Marine Fisheries Commission is responsible for establishing and maintaining effective internal control over compliance with 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 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 and to test and report on the internal control over compliance in accordance with OMB Circular A-133.

Our consideration of the internal control over compliance would not necessarily disclose all matters in the internal control that might be material weaknesses. A material weakness is a reportable condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that noncompliance with applicable requirements of laws, regulations, contracts and grants caused by error or fraud that would be material in relation to a major federal program being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over compliance and its operation that we consider to be material weaknesses.

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, Johnson & Co.

Certified Public Accountants

Biloxi, Mississippi
June 26, 2007

Section V

Other Items

Gulf States Marine Fisheries Commission
Schedule of Findings and Questioned Costs
For the Year Ended December 31, 2006

Section 1 – Summary of Auditors’ Results

1. An unqualified opinion was issued on the basic financial statements.
2. There were no reportable conditions 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 is one reportable condition in internal control over major federal award programs disclosed during the audit. The condition is not reported as a material weakness.
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

06-1 *Statement of Condition:* The Commission was not verifying that entities were not suspended, debarred, or otherwise excluded before entering into contracts under federal awards.

Recommendation: The Commission should check the Excluded Parties List System before entering into contracts under federal awards.



Larry B. Simpson
Executive Director

GULF STATES MARINE FISHERIES COMMISSION

P.O. Box 726 Ocean Springs MS 39566-0726

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Auditee's Corrective Action Plan

As required by Section __.315 (b) of OMB Circular A-133, Gulf States Marine Fisheries Commission has prepared and hereby submits the following corrective action plan for the finding included in the Schedule of Findings and Questioned Costs for the year ended December 31, 2006:

Contact Person

Wendy Garner
Gulf States Marine Fisheries Commission
P.O. Box 726
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Finding 06-1:

The Commission has already taken appropriate steps to see that contractors and other entities are not on the Excluded Parties List System prior to entering into contracts under federal awards.



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