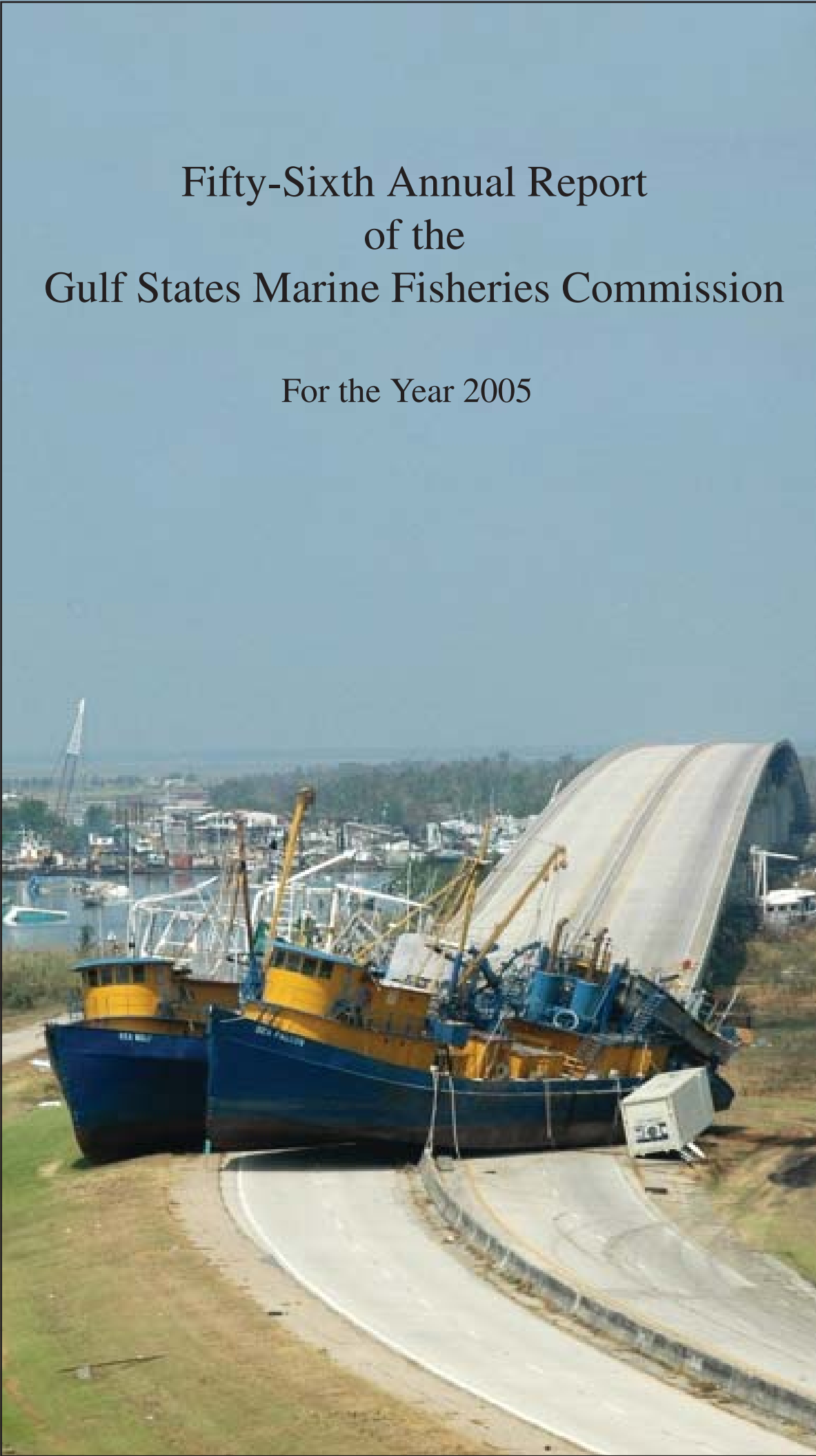


Fifty-Sixth Annual Report
of the
Gulf States Marine Fisheries Commission

For the Year 2005



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-Sixth Annual Report
(2005)

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

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



Edited by:

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Preserving the Past ▪ Planning the Future ▪ A Cooperative Effort

Charles H. Lyles Award

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

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

CHARLES H. LYLES Award Winners

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

Acknowledgements

In submitting this Fifty-Sixth 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-six 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,

John Roussel, *Chairman*
Virginia Vail, *Vice Chairman*
Chris Nelson, *Second Vice Chairman*
Larry B. Simpson, *Executive Director*

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Commission Roster

Commission Officers

Chairman: John Roussel

First Vice Chairman: Virginia Vail

Second Vice Chairman: Chris Nelson

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

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Florida Fish & Wildlife Fisheries
Commission
Tallahassee, Florida
Nancy Argenziano
Florida Senate
Crystal River, Florida
Hayden R. Dempsey
Greenberg Traurig, P.A.
Tallahassee, Florida

LOUISIANA

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Fisheries
Baton Rouge, Louisiana

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

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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
Cynthia B. Yocom, Staff Assistant
Cheryl R. Noble, Staff Assistant
Madeleine A. Travis, Staff Assistant
Deanna L. Valentine, Data Entry Clerk
Gayle E. Jones, Receptionist
Jason S. Keenum, CPA

David M. Donaldson, Program Manager
Steven J. VanderKooy, Program Coordinator
Jeffrey K. Rester, Program Coordinator
Gregory S. Bray, Programmer/Analyst
A. Mike Sestak, III, 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.....	Larry Young, Chairman J.T. Jenkins, Vice 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	Page Campbell, Chairman
TCC Habitat Subcommittee.....	Mark LaSalle, Chairman
TCC SEAMAP Subcommittee	Jim Hanifen, Chairman

GULF STATES MARINE FISHERIES COMMISSION

EXECUTIVE DIRECTOR'S REPORT

Larry B. Simpson, Executive Director

The year started out like any other year with programs like FIN and SEAMAP looking to expand their scope and budgets and Commission staff working diligently on existing programmatic activities. After several years of relatively quiet tropical seasons in our part of the coast, Hurricanes Katrina and Rita hit the northern coast in August and September 2005 and Hurricane Wilma went through south Florida in October 2005. Following the 2004 season, when Florida and Alabama bore the brunt of that year's storms, it would be fair to say the Gulf could be accurately described as ravaged. The efforts to claw back from the worst natural disasters to have ever hit the United States consume us both personally and professionally. Commission staff and state agency personnel, as well as state and federal legislative members, were hit hard. The disasters effected everyone without regard for education, economic, or social status, the entire Gulf Coast community is broken and in distress.

Along with the direct effects on fishery participants and the loss of fishing infrastructure, the natural resources along the coast suffered also. In particular, tidal marshes, barrier islands, and other coastal habitats were severely damaged or lost and our Gulf oyster resources were severely impacted. Debris from hurricane damage has been found in coastal bays, bayous, and marshes out to offshore areas. This debris has caused problems with navigation and fishing activities by obstructing vessel traffic and damaging fishing gear.

With the loss of docks, marinas, ice plants, water, fuel facilities, dealers, fishing vessels, support industries, commercial and recreational fisheries have been significantly reduced from historical levels. Fishing effort is down, as is harvest. The coastal states and their fishing communities have experienced a huge economic loss as a result of the reduction in fishing activity.

Despite the devastation and concerns related to water quality following the storms, we tested the marine resources and found the resource healthy and safe to eat. With the exception of the oyster resource, which was mostly destroyed in the impact area, the other marine resources are healthy and viable. Lost boats, infrastructure and processing have prevented historical levels of extraction, but the resource is sound.

Since the storms, we have been putting our lives back together and we are working diligently to restore the resources lost and to remove the debris that prevents us from utilizing our marine resources.

One lesson learned, is that recovery is a marathon, not a sprint. Everyday is better than the day before and we will once again, with the generous help of the citizens of this great nation, we will be back. We will be different, but better in most all ways. You can count on it.



Hurricanes Katrina, Rita, and Wilma (Photos by NOAA)

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 8. 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 continued to work toward developing a web-based data entry program through which the states will be able to enter their own data in the regional database. In addition, the GSMFC plans to develop 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.

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. Unfortunately, during late August of this project year, the northern Gulf coast was struck by two large hurricanes that have caused severe damage to homes, businesses, and government offices. As a result of the aftermath of the storms, the GSMFC TCC Artificial Reef Subcommittee was forced to cancel a meeting that was scheduled to take place in November 2005.

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.

The GSMFC TCC Habitat Subcommittee discussed a project to identify and locate data, reports, and other information related to a reduction in freshwater flow to coastal estuaries. This project is the result of discussions of the Southeast Aquatic Resources Partnership (SARP). SARP is interested in and has begun developing a Southeast Aquatic Habitat Plan, and this project would assist in determining habitat impacts due to reductions in freshwater flow. The Subcommittee also continued discussing the potential impact of liquefied natural gas (LNG) facilities on marine fish stocks in the Gulf of Mexico. Jeff Rester, GSMFC staff updated the Subcommittee on existing proposed LNG facilities that have applied for or are permitted to use regasification systems that could negatively impact marine fish. In addition, Jeff Rester conducted a demonstration project to map locations that may be suitable for development of offshore aquaculture production. The Coordinator used GIS in working on both of these latter projects.

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 and South Atlantic 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 annual work plans for the Regional Panel based on the five year strategic plan.

The Regional Panel worked with the USGS Nonindigenous Aquatic Species Program of the Florida Integrated Science Center to develop a pathways analysis of existing nonindigenous species data. This document will assist the Regional Panel in setting pathways/species priorities for control and management. In addition, the Regional Panel, through its Education and Outreach Work Group received assistance from its representative from Mexico in translating selected education and outreach materials into Spanish. This will serve two purposes, including providing Mexican citizens with useful education and outreach materials in their native language and providing U.S. Spanish speaking communities with useful information in their native language. The Regional Panel is compiling state and federal agency lists of non-native species that may be banned or restricted from introduction into U.S. or state waters. This compilation of lists will provide the Regional Panel with information to work toward consistency in white, black, and restricted lists, at least at the state level. Finally, the Regional Panel hosted a

training workshop on risk assessments for aquatic invasive species. That workshop was attended by 45 individuals representing state agencies, federal agencies, universities, and the private sector.

Associated Meetings

1/18-19, 2005	Sea Grant invasive species meeting
1/20/2005	Invasive species symposium at the National Aquaculture Association meeting
2/16-18, 2005	Invasive Species Advisory Committee meeting
2/28/2005	Louisiana Invasive Species Council/Task Force meeting
3/14-17, 2005	GSMFC Annual Meeting
3/30-31, 2005	Mid-Atlantic Invasive Species Regional Panel meeting
4/5-7, 2005	Southeast Aquatic Resources Partnership meeting
4/11-14, 2005	National State Directors Meeting – NOAA Fisheries
4/26/2005	Mississippi Invasive Species Task Force meeting
5/9-13, 2005	Gulf and South Atlantic Regional Panel meeting and Florida Exotic Pest Plant Council meeting
5/24-26, 2005	ANSTF meeting
6/7-8, 2005	Fisheries Information Network meeting
6/9-11, 2005	Invasive species coordination meeting with Mexico
8/3/2005	Alabama Invasive Species Task Force meeting
8/23-24, 2005	Invasive Species Risk Assessment Workshop
8/29/2005	Hurricane Katrina hit the Mississippi/Louisiana Gulf coasts
10/10-13, 2005	Invasive Species Advisory Committee meeting
10/19/2005	Provided a report on invasive species activities, including Regional Panel activities, to the Gulf States Marine Fisheries Commission.
11/1/2005	Louisiana Invasive Species Council/Task Force meeting
11/15-17, 2005	Southeast Aquatic Resources Partnership meeting
11/29-12/1, 2005	Gulf and South Atlantic Regional Panel meeting



A TLANTIC BILLFISH RESEARCH PROGRAM

Ronald R. Lukens, Assistant Director

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

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.



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. 98210-3-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.

Task 1: 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:

- January 18-19, 2005 Sea Grant Invasive Species Proposal Review meeting
- January 20, 2005 National Aquaculture Association Conference
- February 16-18, 2005 ISAC meeting
- March 1, 2005 Louisiana Invasive Species Planning meeting
- March 30-31, 2005 Mid-Atlantic Regional Panel
- April 5-7, 2005 Southeast Aquatic Resources Partnership - Invasive Species Committee
- April 26, 2005 Mississippi Invasive Species Planning meeting

- May 10, 2005 Florida Exotic Pest Plant Council
- May 11-13, 2005 Gulf and South Atlantic Regional Panel
- May 24-26, 2005 ANSTF meeting
- June 9-10, 2005 Invasive Species meeting in Mexico City, Mexico
- 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, 2005 Gulf and South Atlantic Regional Panel meeting

Task 2: 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.

Task 3: 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.

Task 4: Preparation and Presentation of Annual Report

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

SOUTHEAST MONITORING AND ASSESSMENT PROGRAM (SEAMAP)

Jeffrey K. Rester, Program Coordinator

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

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

NMFS conducted reef fish sampling from April 12 through May 11, 2005 as part of the SEAMAP Reef fish 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 are baited with squid before deployment. The resultant video recordings (typically of one hour duration) were processed back at the laboratory where fish 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. During the 2005 Survey, video cameras were deployed at 142 sites and the chevron trap at 29 sites.

The overall sampling strategy during the 2005 SEAMAP Summer Shrimp/Groundfish Survey was to work from the eastern Gulf to the Texas/Mexico border, in order to sample during or prior to migration of brown shrimp from bays to the open Gulf area. This was the twenty-fourth year for the survey. The entire survey occurred from June 1 through July 31, 2005 and 272 trawl stations were sampled during the survey. In addition, NMFS, Mississippi, Alabama, and Louisiana vessels collected ichthyoplankton data. During the survey, the NOAA Ship OREGON II and R/V TOMMY MUNRO sampled offshore and inshore Gulf waters with 40-ft trawls. Alabama's R/V VERRILL sampled offshore Alabama waters with 40-ft trawls; the R/V PELICAN sampled both Louisiana state waters and offshore waters with 40-ft trawls. Texas vessels sampled Texas state waters and offshore waters with 20-ft trawls. All vessels took environmental data, including temperature, salinity, oxygen, and chlorophyll at each station.

The first Fall Plankton Survey to assess abundance and distribution of king mackerel eggs and larvae occurred in August 1984. No sampling survey was conducted in 1985; however, expanded surveys in 1986-2004 covered Gulf waters from Florida Bay to Brownsville, Texas. Due to impacts from Hurricane Katrina, the 2005 Fall Plankton Survey was cancelled.

The Fall Shrimp/Groundfish Survey was conducted from October 8 to November 16, 2005, 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. Due to impacts from Hurricane Katrina, Mississippi did not participate in the 2005 Survey. NMFS and Louisiana vessels collected ichthyoplankton data at sample sites occurring nearest to half-degree intervals of latitude/longitude. Fifty-eight stations were sampled with bongo and/or neuston nets, as encountered along cruise tracks. The Polish Sorting and Identification Center sorted the samples. The specimens and data were archived at the SEAMAP Archiving Center.

JOINT GSMFC/GMFC HABITAT PROGRAM

Jeffrey K. Rester, Program Coordinator

In January, the Gulf of Mexico Fishery Management Council's draft Essential Fish Habitat Amendment was presented at a public hearing in Florida. The Council approved the Amendment the following week at their meeting. The Amendment enacted the measures from the EFH EIS. The Council identified EFH for each managed species, designated habitat areas of particular concern, and enacted measures to protect habitat from fishing impacts. HAPCs included the Florida Middle Grounds, Madison-Swanson Marine Reserve, Tortugas North and South Ecological Reserves, East and West Flower Garden Banks, Stetson Bank, Sonnier Bank, McNeil Bank, Rankin Bright Bank, Geyer Bank, McGrail Bank, Bouma Bank, Rezak Sidner Bank, Alderice Bank, Jakkula Bank, and Pulley's Ridge. Actions to protect habitat from fishing impacts included prohibiting bottom anchoring over coral reefs in HAPC, prohibiting trawling gear, bottom longlines, buoy gear, and all traps/pots on coral reefs throughout the EEZ, and requiring a weak link in the tickler chain of bottom trawls on all habitats throughout the Gulf of Mexico.

In 2005, the Commission received word that the MARFIN bottom mapping proposal was selected for funding. This 2.5-year project will create and distribute a digital spatial database of bottom habitats on the continental shelf and slope from the Texas/Mexico border to the southern tip of Florida. The database will be created from the recovery, interpretation, and integration of existing data for this region. The data will be organized spatially in ArcGIS format and will be available via printed document, CD-ROM, and on the web. The start date for the project was April 1. A meeting of the bottom mapping committee was held in May 2005 where the committee discussed project goals and objectives, database structure, data types, data sources, and a request for proposals for a data gathering contractor. Selection of the data gathering contractor was delayed by Hurricane Katrina, but the University of Colorado and University of New Orleans were selected to gather data for the project and build the database. The start date for the data gathering portion of the project was January 1, 2006.

During 2005, the issue of using seawater as a heat source for liquefied natural gas (LNG) facilities continued to be a concern. Billions of fish eggs and larvae would be killed each year due to LNG facilities using billions of gallons of water each year in an open loop regasification system to heat the cooled LNG back to its gaseous phase. During 2005, the Commission and Gulf of Mexico Fishery Management Council wrote letters of concern on the proposed Gulf Landing, Compass Port, Pearl Crossing, Main Pass, and Beacon Port facilities.

On August 17-18, 2005, the Commission sponsored a workshop to review LNG monitoring and mitigation plans. The Coast Guard and MARAD were represented at the meeting. Several recommendations were made to strengthen a NMFS report detailing LNG monitoring plan considerations.

The first National Fish Habitat Initiative (NFHI) meeting was held in February. The International Association of Fish and Wildlife Agencies sponsored the NFHI. The NFHI was formed in the hopes of stemming the tide of aquatic habitat loss and habitat degradation throughout the country. The NFHI modeled itself after the North American Waterfowl Plan. At this meeting, the group developed goals and objectives for the NFHI and discussed other regional groups working on aquatic habitat throughout the country.

Later in 2005, the NFHI released a draft National Fish Habitat Action Plan for public review. The mission of the Action Plan was to protect, restore and enhance the nation's fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people. The goals of the Action Plan were to protect and maintain intact and healthy aquatic systems, prevent further degradation of fish and aquatic habitats that have been adversely affected, reverse declines in the quality of aquatic habitats to improve the overall health of fish and other aquatic organisms, increase the quality and quantity of fish sustained by our nation's waters, and increase self-sustaining aquatic systems that support a broad natural diversity of fish and other aquatic species. The Plan would proceed through four key approaches:

- 1) implement fish habitat protection, restoration and enhancement through development of new partnerships and expanded support of existing partnerships;
- 2) mobilize national and local support for achieving fish habitat conservation goals;
- 3) measure and communicate the status and needs of aquatic habitats; and
- 4) provide national leadership and coordination to conserve fish habitats.

A meeting of the Council's Texas Habitat Protection Advisory Panel was held in December 2005. At the meeting the Advisory Panel discussed an update on the Sabine Neches waterway deepening project, a comprehensive restoration plan for west Galveston Island, the status of beneficial use sites in Galveston Bay, changes to 316b of the Clean Water Act rules, potential fishery impacts of LNG facilities, and impacts of the 2005 hurricane season.

INTERJURISDICTIONAL FISHERIES (IJF) MANAGEMENT PROGRAM

Steven J. VanderKooy, Program Coordinator

The IJF Fishery Management Plan development and review program of the GSMFC continued to provide the Gulf States with quality information and recommendations for interstate management of fisheries. Additionally, this information was used continuously by the states in their respective programs. The IJF Program 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 56th Annual Meeting.

During 2005 the IJF Program Coordinator and Staff Assistant were Mr. Steven J. VanderKooy and Mrs. Cynthia B. Yocom, respectively. 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 Striped Bass Technical Task Force, the Crab Subcommittee, the Derelict Trap TTF, the Habitat Subcommittee, the Menhaden Advisory Committee, the Commercial/Recreational Fisheries Advisory Panel, the Sheepshead Technical Task Force, and the Law Enforcement Committee.

The Striped Bass TTF completed and approved the final draft of the Striped Bass FMP revision in early 2005. It was presented to the Technical Coordinating Committee (TCC) to begin their review in March. The TCC approved the FMP in June and voted to move it forward to the SFFMC for their review and a 90-day public comment period which went through the end of the year.

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. Louisiana and Texas held public derelict trap cleanups while Mississippi conducted an agency trap cleanup. A total of 7,382 traps were removed from the three participating states in 2005.

In Louisiana, 4,053 traps were collected in Lake Sabine, Breton Sound, and Terrebonne Bay. Mississippi did not have a public cleanup, but GCRL and MDMR staff pulled 500 traps. Finally, the Texas cleanup was in its third year

and they removed 2,458 traps from 8 systems including: Sabine Lake, Galveston Bay, Matagorda Bay, San Antonio Bay, Aransas Bay, Corpus Christi Bay, and both the Upper and Lower Laguna Madre. Several small local cleanups were conducted in Florida by independent groups totaling around 370 additional derelict traps in 2005.

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. Also discussed were pertinent Congressional activities including enforcement coordination, homeland security, and funding. The conference calls allowed the opportunistic discussion of regional issues. The IJF Staff Assistant continued to provide administrative support to all law enforcement activities.

Support and travel were provided to the Commercial/Recreational Fisheries Advisory Panel (C/RFAP) to attend the 2005 Annual Spring Meeting; however, hurricanes Katrina and Rita had adversely affected enough members that they did not meet in the fall.

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. Lastly, 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*.

In August and September, respectively, hurricanes Katrina and Rita made landfall in Mississippi, Louisiana and east Texas, as such, the end of 2005 centered around disaster recovery. While the GSMFC office was not damaged, a number of meetings and activities were cancelled or delayed due to the effects of the storms on the IJF staff and various committee members and MDMR and LDWF offices. It is anticipated that after the first of the year, most of the IJF activities should resume to normal.



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.¹¹ The FIN consists of two components:

1. Commercial Fisheries Information Network (ComFIN) and the
2. 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, 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.

¹¹ The Southeast Region (the Region) includes Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Texas, and the U.S. Virgin Islands.

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 2005. The major issues discussed during these meetings included:

- Identification and continuation of tasks to be addressed in 2005 and instruction to Administrative and Geographic Subcommittees and the Data Collection, Biological/Environmental, Social/Economic, Data Collection Plan, Registration Tracking and ad hoc work groups to either begin or continue work on these tasks;
- Development of the 2006 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 2005;
- 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 2006;
- Preparation and submission of a proposal for financial assistance to support activities of the FIN; and
- Continued internal evaluation of the program.

Subcommittees and Work Groups

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

- The Marine Recreational Fisheries Statistics Survey data review meetings were held in February, June and November 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;
- ComFIN Data Collection Work Group met in February and May (via conference call) to review the bycatch priorities for the listed commercial fisheries and develop recommendations to FIN regarding bycatch monitoring;
- RecFIN(SE) Biological/Environmental Work Group met in May to discuss the development of sampling protocols for highly migratory species, prioritization of recreational fisheries for the FIN Bycatch Module, RDD add-on questions for collection of private access site fishing data, presentation of pilot tournament sampling activities in Mississippi, further development of pilot recreational shrimping and crabbing mail survey, determination of extent for non-consumptive activities and exploring the feasibility of implementing a federal recreational fishing permit;
- The Otolith Processors Training Workshop was held in May 2004 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, establishing a regional otolith

processing center, presentation of greater amberjack processing and analysis issues, status of Otolith Manual Revision, processing status of otoliths collected in 2002 – 2004;

- The FIN Data Collection Plan Work Group met in May 2005 to review of 2004 and 2005 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 2005 fin data collection plan document;
- The State/Federal Fisheries Management Committee met in August 2005 to discuss the finalization of activities for funding for the 2006 FIN cooperative agreement;
- The Gulf of Mexico commercial port samplers meeting was held in November 2004 to discuss NMFS SERO federal management, presentation of shark identification, collection of tilefish otoliths, status of the Commercial Fisheries Information Network, status of TIP Online Program, presentation of gag and black grouper assessment concerns and other pertinent issues as well as a tour of the new NMFS Southeast Regional Office.



Shrimp boats in Bayou La Batre post Katrina (photo by AMRD)

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. 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 a new activity in 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. GSMFC enter into a contract with Southwest Computer Bureau (SCBI) to provide installation and maintenance of electronic trip ticket programs for 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. Texas implemented trip-level reporting for a limited number of dealers in 2005 and is planning on full implementation in 2006.
- **Biological Sampling of Commercial and Recreational Catches** - This task provided for the collection of biological data from the recreational and commercial fisheries. These data are essential to accurately assessing the status of commercial and recreational species such as red snapper, king mackerel, gulf and southern flounder, and greater amberjack. For the commercial aspects, port sampling will be collecting this information based on established guidelines. For the recreational side, samplers will go to sites and collect the necessary biological data using a modified MRFSS method. This task provides funding for collection, processing and analysis of these data. The GSMFC provided coordination as well as tracking of the collection and analysis portions of this activity. This is a continuation of an activity from the previous year.

Coordination and Administrative Support

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

Information Dissemination

Committee members and staff provided program information in 2005 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. 2005. *2006 Operations Plan for Fisheries Information Network (FIN)*. No. 136 Gulf States Marine Fisheries Commission, Ocean Springs. 25 pp + appendix.
- FIN Committee. 2005. *Annual Report of the Fisheries Information Network for the Southeastern United States (FIN) January 1, 2004 - December 31, 2004*. No. 131 Gulf States Marine Fisheries Commission, Ocean Springs. 18 pp + appendices.
- FIN Committee. 2005. *2006 FIN Data Collection Plan*. Gulf States Marine Fisheries Commission, Ocean Springs. 87 pp.
- 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.smfc.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.

A LABAMA MARINE RESOURCES DIVISION (AMRD)

Vernon Minton, Executive Director

The Alabama Marine Resources Division (AMRD) is responsible for the management of Alabama's marine fisheries resources through research and enforcement programs. Two division facilities supported an average of fifty-five employees of the Administrative, Enforcement, and Fisheries Sections during fiscal year 2005.

Significant Accomplishments

An experimental oyster dredging harvest was instituted on two small reefs in Portersville Bay in the spring of 2005. The success of this effort led to the opening of all of Portersville Bay in October. The number of dredgers has expanded from seven in the spring to over twenty-five in December. All harvesters are regularly collecting their limit of 16 sacks per day and the size of many oysters harvested indicates these areas have not been utilized by the tonging fishery in many years.

The AMRD 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, thirty-seven 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.

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 AMRD 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 AMRD enforcement section received \$650,000 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 AMRD officers.

The facilities for red snapper brood fish maturation at CPMC and the production of fingerlings by naturally spawning fish has enabled continued cooperative research to occur between the AMRD, Auburn University, and Alma Bryant High School. 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.

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

AMRD hosted two youth fishing days at Claude Peteet Mariculture Center in 2005. A total of forty 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 a fish, and for some it was their first time in their life they had caught a fish. 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.

During 2005, AMRD staff participated in four large events in Mobile and Baldwin Counties 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 two day Florida Sportsman Fishing show, the four day National Shrimp Festival in Gulf Shores, and the one day Conservation Bird Festival.

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

have 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 four 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 no additional fee, by amending 9-11-53.1 and 9-12-55.2.

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 the 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.

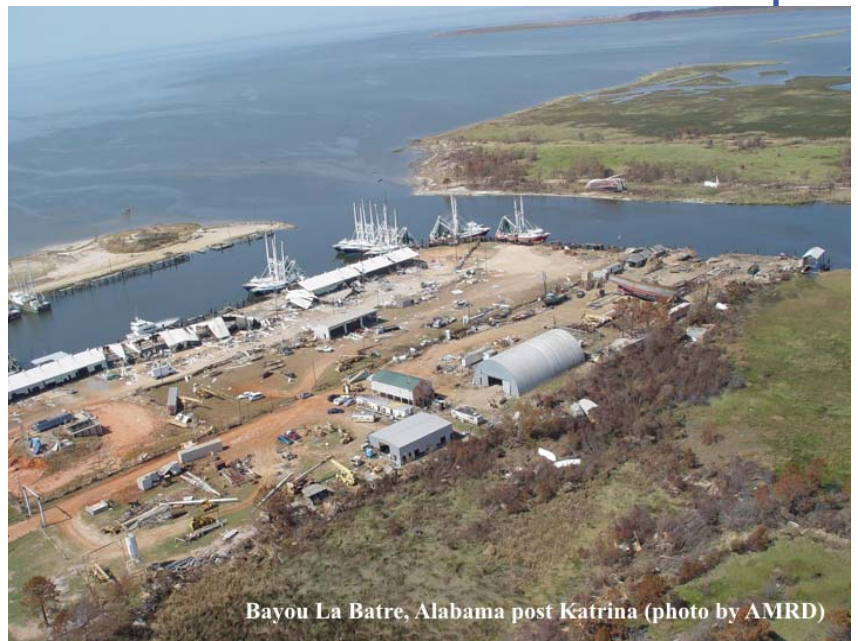
Accomplishments

Construction was completed of a pumping system and

pipeline that extends from the Gulf of Mexico at the Gulf State Park Pier to CPMC. This project was funded by CIAP funds. It enhanced the development of red snapper production at CPMC by providing a supply of high salinity water. However, Hurricane Ivan destroyed the intake structure, the pump station, and portions of the pipeline. This will be repaired with FEMA monies, after the Gulf State Park pier is relocated to serve for attachment of the intake structure. It is estimated that it will take two years to repair the structure.

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



Bayou La Batre, Alabama post Katrina (photo by AMRD)

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 AMRD enforcement

section received \$650,000 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 AMRD officers.

The 2005 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 twenty-three Alabama seafood dealers are online with this program. These dealers contribute substantial amounts of landings data to AMRD. The computer program allows seafood dealers to enter landings and trip information from commercial fishermen and submit it electronically on a monthly basis.

During 2005, AMRD staff participated in four large events in Mobile and Baldwin Counties 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 two day Florida Sportsman Fishing show, the four day National Shrimp Festival in Gulf Shores, and the one day Conservation Bird Festival.

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.
- Renovation of the Boggy Point Boat Ramp will be completed in 2006. Repairs have been made to ramps damaged by Hurricane Ivan, and repairs will be completed to those damaged by Hurricane Katrina.
- 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 of the citations and warnings (359) were for violations of recreational fishing laws and regulations. The 379 violations of commercial fishing laws and regulations comprised twenty-five percent of the citations and warnings issued. 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 has assisted with planning of enforcement patrols and deployment of manpower and other resources resulting in saved man-hours, by not responding to inaccurate reports of violations. To date, 203 citizens have been trained at 31 training sessions held in Mobile, Baldwin, and Jefferson counties. The response to the program continues to be very positive.

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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 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, thirteen Biologist Aides I/II, two temporary laborers.

Accomplishments

The facilities for red snapper brood fish maturation studies recently completed at the CPMC have resulted in the increased production of red snapper fingerlings. The production of these fingerlings by naturally spawning fish has enabled continued cooperative research to occur between the AMRD, Auburn University, and Alma Bryant High School. A pumping system and pipeline that extends from the Gulf of Mexico at the Gulf State Park Pier to the CPMC. This project was funded by CIAP funds. It enhanced the development of red snapper production at CPMC by providing a supply of high salinity water. However, Hurricane Ivan destroyed the intake structure, the pump station, and portions of the pipeline. This will be repaired with FEMA monies, after the Gulf State Park pier is relocated to serve for attachment of the intake structure.

The fifth 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 AMRD 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 participated in the Alabama Aquatic Nuciense 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 nuciense species. The goal of this task force is to produce an Aquatic Nuciense Species Response Plan by the end of 2006.

The fifth 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 in west central Alabama.

One hundred twenty-five (125) 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 347. 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 made plenty of material available for reefing. The pool deck and seawall were in the way of the beach renourishment project, and so they were removed and used to start 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.

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 91 habitat assessments were performed, and 4,197 fishermen were interviewed during creel surveys.

The success of the electronic trip ticket computer program continues to grow. Currently 23 Alabama seafood dealers are online with this program. These dealers contribute substantial amounts of landings data to AMRD. 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 submitted trip ticket data from 23,500 commercial trips reporting over 19.6 million pounds of seafood worth over \$33 million.

Hurricane Katrina delivered a devastating blow to Alabama's seafood industry. Storm surges of up to 18 feet flooded businesses and homes, some of which were totally destroyed. Flood waters damaged and destroyed equipment, contaminated seafood products, and stranded an initial estimate of over 50 commercial vessels on shore. The production of processed seafood in Alabama has decreased for most fisheries. Approximately 70-80% of Alabama's total yearly processed seafood is supplied to Alabama, from outside sources; in some fisheries such as oysters, the dependency is higher. Although abundant volumes of shrimp have been unloaded following Katrina, prices have stagnated, reportedly due to labor shortages. AMRD biologists are working with economists from the University of South Alabama and NOAA fisheries to assess losses for the seafood and charter industries in Alabama. Preliminary figures estimate losses to exceed \$87 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.

During 2005, AMRD staff participated in four large events in Mobile and Baldwin Counties 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 two-day Florida Sportsman Fishing show, the four-day National Shrimp Festival in Gulf Shores, and the one-day Conservation Bird Festival.

AMRD hosted two youth fishing days at Claude Peteet Mariculture Center in 2005. A total of forty 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 a fish, and for some it was their first time in their life they had caught a fish. 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.

Portersville Bay oyster reefs were opened to dredging beginning on April 26, 2005 and remained open for a short period. They were reopened on May 2, 2005, and

remained so through December. Eventually 32 oystermen were permitted to harvest, with the use of dredges. The activity was closely monitored, and the type dredges allowed, were restricted to a certain type. The activity was successful, and catch per unit effort was as high as 7.5 sacks per hour. This dropped off somewhat by the end of December, as the harvest proceeded, but was still good.

Federal Aid

Wallop/Breaux: Wallop/Breaux funds are administered through the U. S. Fish and Wildlife Service. Funds used from this source, by the AMRD, were directed toward a creel survey of Alabama's saltwater recreational anglers, production of the 2005 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 AMRD 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.

Adult Finfish Sampling Program: AMRD 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 net sets were conducted out of a target of 240, due to hurricanes this season. In 2005, 4,678 finfish, representing 6 freshwater and 37 marine species were collected.

Cooperative Statistics: Federal aid funds for this program are administered by the Department of Commerce (NOAA



Secretary of State Condoleezza Rice tours Alabama post Katrina (photo by AMRD)

Fisheries) and are utilized by the AMRD 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.

Additional Programs

The Marine Recreational Fisheries Statistics Survey (MRFSS): Funding for this project is provided through a subgrant from the Gulf States Marine Fisheries Commission (GSMFC). 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. AMRD 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 2,371 fishermen interviews for FY 2005. Through August 2005, the most recent data available, over 6,308 fish were identified representing 69 species, and of

these, 4,308 (68%) fish were measured. Hurricane Ivan damaged the local infrastructure, and this contributed to reduced interviews in the fall of 2004 causing some quotas to be missed.

Otolith Sampling Program: Funding for this project is provided through a subgrant from the GSMFC. 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, important information used to determine the health of fish stocks. A total of 1,853 otoliths were collected in fiscal year 2005.

Commercial Trip Ticket Program: Funding for this program is provided through the 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 AMRD in the aftermath of the damage caused by Hurricane Ivan were used to plant over 28,000 cubic yards of oyster cultch in the summer and fall of 2005. A total of 10,000 yards was planted in shallow area at the mouth of and in Heron Bay. A total of 18,375 cubic yards of cultch was planted along the western edge of Cedar Point reef. Assessment of the reefs in the wake of Hurricane Katrina, showed little damage to the reef areas, over and above that which was caused by Ivan in 2004.

At-Sea Head Boat Pilot Survey: Funding for this project is provided through a subgrant from the GSMFC. 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.

The AMRD also continued the cooperative endeavor with Auburn University and the new Alma May Bryant High School in Mobile County to provide a mariculture training center at the high school. This continues to be a very successful program which expands students' ability to participate in future fisheries.

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.
- 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.
- Renovation of Boggy Point Boat Ramp to include a new boat launching ramp and additional parking spaces for vehicle and trailers.

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 2004/2005 fiscal year are summarized below.

Marine Fisheries Management and Policy Development

During 2004/2005 the Florida Fish and Wildlife Conservation Commission (FWC) approved effort management programs for the marine life fishery and the blue crab fishery. In the marine life fishery, latent effort was eliminated and a tiered license system that separated the directed dive harvesters from those who harvested marine life species as a bycatch was created. For the blue crab fishery, separate hard-shell and soft-shell blue crab endorsements as well as incidental take endorsements were established. Various rules to modify blue crab trap specifications were also passed. In 2004, a rule was implemented that approved the use of trap pullers on aquaculture vessels. The FWC passed a rule to protect spawning aggregations of permit by enacting a vessel limit of two permit greater than 20 inches fork length and a rule to allow the taking of sheepshead with a barbed spear (gig) having no more than three prongs in the inland waters of Volusia County, where said gear had previously been prohibited. Clarification and specifications of net measurement procedures and net construction procedures were implemented in early 2005. New regulations for dolphin and wahoo were implemented partly for federal consistency. These rules designated dolphin and wahoo as restricted species, established a 20-inch fork length minimum size for dolphin harvested on Florida's Atlantic

coast, established a statewide vessel limit of 60 dolphin, established a two-fish recreational bag limit and a 500 pound commercial vessel limit for wahoo, prohibited the sale of recreationally caught dolphin and wahoo, and required all dolphin and wahoo to be landed in whole condition. The FWC approved changes to the Apalachicola Bay winter oyster harvesting season from October 1 – June 30 to September 1 – May 31 and the summer season from July 1 – September 30 to June 1 – August 31. The Commission also approved new regulations for vermilion snapper in order to be consistent with changes made by the Gulf of Mexico Fisheries Management Council. These changes raised the minimum size limit from 10 inches to 11 inches for both recreational and commercial fishers, established a closed season for commercial harvest in Gulf waters from April 22 – May 31, and applied the 10-fish recreational bag limit to Gulf coast waters. The Commission reduced the bag limit for red grouper to two fish out of an aggregate of five fish. However, with numerous changes to the red grouper federal regulations the FWC continues to consider other management options. The FWC took final action on buoy and trap marking requirements for black sea bass traps. The new trap marking system will prevent legal black sea bass traps from being misidentified and removed during coastal clean-up events, provide a way to identify lost or stolen gear, and help reduce the use of illegal fish traps. The Division of Marine Fisheries Management continues to work with Biscayne National Park to finalize their Fishery Management Plan for the Park.

Artificial Reef Program

During FY 04/05, \$452,900 from a USFWS Federal Aid in Sport Fish Restoration grant, in concert with \$165,100 in state saltwater fishing license revenues, provided funding to 13 artificial reef construction, five monitoring and one research project. Thirteen local coastal governments, a non-profit organization and two universities were issued grants for 2004-05. Twelve 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 has also awarded a special \$59,940 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.

Progress continued on the planning and preparation for the deployment of the aircraft carrier *USS Oriskany*



Red snapper (photo by Gray Gray)

as an artificial reef at a site located 22.5 nautical miles southeast of Pensacola Pass at a depth of 212 ft. The vessel is currently moored at the inactive reserve fleet in Beaumont, TX. The FWC staff has been working closely with the Navy and EPA on the necessary environmental cleaning preparations. The Navy has developed a series of five documents that address human health and environmental risks associated with leaving on board solid polychlorinated biphenyls (PCBs) primarily in wire cable insulation and bulkhead insulation. Although substantial amounts of contaminants have been removed, the Navy states that those solid PCB containing materials remaining on board cannot be cost effectively removed from the ship. The EPA is in the final review stages of the Navy's risk assessment documents. The Navy has spent about \$12.5 million to date on environmental cleanup and PCB risk assessment studies on the vessel. The Navy studies indicate that leaving the remaining PCB containing materials on board will present negligible risks to human health and the environment. The anticipated date for the Oriskany's deployment as an artificial reef is currently scheduled during the spring of 2006. Tasks remaining before movement of the vessel to Pensacola for final sinking preparations include completion of EPA final review of the Navy's human health and environmental risk assessment documents, completion of an Essential Fish Habitat consultation, approval of an FWC-Navy transfer document, and the issuing of a PCB risk based disposal permit to sink the vessel, following a public workshop and receipt of comments from the public on the project.

FWC artificial reef program staff made a presentation and developed a poster for the 8th International Conference on Artificial Reefs and Artificial Habitats in Biloxi, Mississippi in April of 2005. The presentation was entitled "Preliminary report of the impacts to Florida's artificial reefs from the four major hurricane landfalls during 2004" and the poster was on the Florida artificial reef program.

Also during FY 04/05, the FWC entered into a grant agreement with the University of Florida Department of Fisheries and Aquatic Sciences for an additional \$195,000 (\$120,000 from a USFWS federal grant and \$75,000 in state fishing license revenues) Sciences. The purpose of this project was to construct and deploy artificial reef modules off the Florida Big Bend as part of a project designed to ultimately determine whether artificial reefs can effectively alleviate a potential bottleneck in the life history of a recreationally and commercially important fish species, the gag grouper by creating additional and more complex reef habitat superior to existing available hard bottom. The intent is to measure whether the survival and physical condition of juveniles moving from seagrass nursery habitat to coastal reef habitat can actually be enhanced with the addition of artificial reef habitat. The first phase of this project, involved sidescan sonar of existing hard bottom habitat and the deployment of 40

four concrete cube monitoring reefs stations deployed at 1-2 km intervals along the 10 fathom curve of the Florida Big Bend. These cube patch reef monitoring stations will be used to collect baseline data on gag grouper both before and after deployment of hundreds of additional units in a permitted areas known as the Steinhatchee Fisheries Management Area located between the grass beds and the monitoring stations. These additional deployments will occur upcoming years following baseline collection from the evaluation reefs. The evaluation reef deployments were completed in 2005.

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. Angler Outreach and Aquatic Education projects were transferred into this section in July 2004 as part of the agency's reorganization. Three saltwater products wholesale dealers were audited for general compliance with the trip ticket reporting requirements and documentation procedures followed by 15 dealers were reviewed to address discrepancies identified during implementation of effort management programs. Forty one informal administrative hearings were conducted for fishers appealing a notice of civil penalty assessment or agency action affecting their commercial licensure. Twenty one of the hearings related to the agency's denial of transferable commercial lobster dive permits to ineligible applicants; four pertained to suspension of saltwater product wholesale dealer licenses for purchasing product from unlicensed fishers.

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, and produced a commercial fishing regulations newsletter in Spanish.

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 44,697 anglers interacted with FWC staff on a wide variety of fisheries related topics and 420,800 went through the building where FWC had a display at the Florida State Fair. Five Ladies Let's Go Fishing Clinics were held, where 320 women interested in learning more about sport fishing and fishery resources participated in these two-day events. A total of 14 Kids Fishing Clinics were conducted statewide; 4364 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 856 students to learn how to use equipment and sampling methods that FWC biologists utilize to collect data for fisheries management. Three teacher workshops were conducted statewide and 97 teachers were instructed in fisheries management practices and proper specimen collecting methods for classroom learning programs. One hundred eighty one 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.

The Florida Legislature established two new fishing licenses: a Military Gold Sportsman recreational license for \$50 annually that authorizes hunting, freshwater fishing and saltwater fishing for active or retired members of the armed forces or reserves, and a commercial saltwater products license that would be issued in a person’s name but also authorize a crew to fish as long as the license holder was present on the boat. Under current commercial license options, a license that would cover everyone fishing on a vessel would be issued in the vessel registration number and be valid only on that vessel. The new license is valid on any vessel the license holder uses. The Legislature also enacted a reduction of the administrative fees charged to transfer stone crab trap certificates from \$2 per certificate to \$1.

The trap retrieval trap program recovered 1,625 spiny lobster and stone crab traps remaining in bay side and ocean side waters of the Florida Keys after close of their respective fishing seasons.

This section also administered the Federal Food Shrimp Fishery Disaster Relief Program; in May 2005 awards were issued to eligible food shrimpers with a history of compliance with TED/BRD regulations. The Florida Department of Agriculture and Consumer Services continued a multi-media campaign to promote wild Florida shrimp to retailers, restaurants and consumers.

FLORIDA FISH AND WILDLIFE RESEARCH INSTITUTE

Gil McRae, Director

Finfish

We continued a study of spotted seatrout (*Cynoscion nebulosus*) reproduction in Tampa Bay aimed at determining geographically-specific maturity schedules,

spawning frequency and batch fecundities in order to refine the accuracy of spawning potential ratio (SPR) estimates in Florida waters. We also continued work on the biology and ecology of reef fishes in southeast Florida, with an emphasis on spawning aggregation studies. A study of catch and release mortality of tarpon is also continuing, as well as an intensive data collection program aimed at fully characterizing the state’s snook fishery. Life history and fishery characterization studies are also being conducted for American shad and wahoo populations in Florida.

The Florida Keys Finfish Research Program continues to monitor abundance, size structure, and habitat utilization of economically important fish species (including groupers, snappers, grunts, butterflyfish, angelfish, hogfish, triggerfish, and bigeyes) inhabiting reef areas in the Florida Keys National Marine Sanctuary (FKNMS) using census surveys. Most species observed during surveys have shown consistent densities and size structures over the last five years of the study. As in previous years, grunts strongly dominated surveys, accounting for 84% of the individuals observed. Length distributions for economically important species for many of the snapper and grouper species observed have been in the smaller size classes for their species. In 2003, a low percentage of yellowtail snappers (7.4%), red groupers (17.3%), black groupers (9.8%), scamps (5.9%), and gag groupers (4.2%) were observed at or above the legal recreational fishing size limit.

Mollusks

Bay scallop (*Argopecten irradians*) population restoration is ongoing in the area between Pine Island Sound and Crystal River, and assessment of success is evaluated via surveys of adult abundance and recruitment patterns. Studies of calico scallop (*Argopecten gibbus*) population attributes are continuing on the east Florida shelf and in southwest Florida. Genetic/disease studies of hard clams (*Mercenaria*) continue statewide. An oyster (*Crassostrea*

Remains of boat-storage building in Deerfield Beach, Florida post Wilma (photo by Daniel R. Tobias)



virginica) population monitoring program has been initiated in southeast Florida.

The queen conch research and restoration program continues to monitor juvenile and adult queen conch abundance throughout the Florida Keys in order to track the recovery of the species. Since 1999, the number of adult conch in offshore breeding aggregations has increased steadily. Our restoration efforts are currently focused on transplanting non-reproductive conch from nearshore sites to offshore breeding aggregations. With the aid of volunteers, we transplanted a total of 2,000 conch to offshore aggregations at Looe Key and Eastern Sambo. Monitoring and acoustic tracking of the most recent transplants has shown that the transplanted conch do not displace the native animals and that transplanted conch remain in the area over an extended period of time. Finally, we have begun work on a two-year EPA grant designed to determine the cause(s) of the lack of reproduction in the nearshore conch population using an endocrine disruption approach.

Crustaceans

The crustacean fisheries research program is comprised of fisheries-oriented biological and ecological studies on economically important crustaceans (shrimps and crabs) and other marine arthropods (horseshoe crab). During this fiscal year we continued studies to gather information on the blue crab fishery and to identify spawning beaches and determine population genetic structure of horseshoe crabs. We also initiated a long-term stone crab monitoring project in southwest Florida to gather biological data on the crabs stocks exploited in this claws-only fishery. We are preparing manuscripts on the population biology and fisheries biology of stone crabs in northwest Florida and in the Tampa Bay area, the effectiveness of BRDs in roller frame trawls, and the results of mail surveys of Florida blue crab fishermen and shrimp fishermen.

The spiny lobster program continues to monitor landings and other important fishery components for both the commercial and recreational spiny lobster fisheries. Commercial lobster fishery landings were 4.6 million lbs during the 2002-2003 fishing season, which is up from last year's 3.1 million lbs, but still well below the long term average of 6 million lbs. Recreational lobster license holders returned nearly 2,000 survey questionnaires. Their responses indicate that 340,000 lobsters were landed statewide during the Two-Day Special Sport Season and 838,000 lobsters were landed during the first month of the regular season. We completed a creel survey designed to ground truth the mail surveys. We found that recreational harvesters captured on-average the same sized lobster as do commercial fishers, and interestingly, the harvest reported by the mail surveys appears to be slightly greater than that observed in the creel survey.

We completed the sixth year of monitoring the spiny lobster populations within the marine reserves of the Florida Keys National Marine Sanctuary. Overall, the abundance of legal-sized lobsters has progressively increased inside the reserves relative to unprotected areas. Additionally, the Western Sambo Ecological reserve has shown a steady increase of large male lobsters, indicating that some long-term retention of lobsters within the reserve is occurring. Males in excess of 100 mm carapace length now comprise approximately 10% of the offshore population inside the reserve.

Fisheries Genetics

A stock identification study of vermilion snapper was completed and reported to regional fisheries councils for the SEDAR9 assessment. Lab work for an individual-based movement/migration study of common snook was completed for FWC's upcoming snook stock assessment. DNA markers are being used to genetically identify individual tarpon in capture-recapture and stock structure studies in southwest FL. The distributions of cryptic

bonefish species in FL were genetically examined. To date, approximately 1,600 of the 16,000 field-caught red drum processed by FWRI geneticists originated from the Tampa Bay red drum stocking program.

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 2004, Florida commercial landings totaled approximately 109 million (M) pounds of fish, blue crab, stone crab (claws), hard clams (wild harvest only, excludes aquaculture), lobster, shrimp, and other invertebrates worth over \$185M in dockside value from 224,451 commercial fishing trips. Marine life landings

240,550 commercial fishing trips. Commercial marine life landings during 2003 were also similar to those in 2004, with about 6.4M individual specimens collected worth approximately \$2.5M in dockside value and live rock and live sand landings at over 1.1M pounds worth approximately \$0.35M in dockside value from 5,133 commercial collecting trips.

Stock Assessment and Population Modeling

In April 2005, the assessment group released 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 developed stock assessments for Caribbean spiny lobster, red drum and black sea bass during July 2004/June 2005 and contributed to numerous federal and interstate commission projects.

Stock Enhancement Research

Stock enhancement of finfish continued to focus on red drum (*Sciaenops ocellatus*) and common snook (*Centropomus undecimalis*).

Project Tampa Bay is designed to determine the most cost-effective size hatchery-reared red drum to release to increase the population of that species without displacing wild fish. The experimental design is intended to answer the questions of size-at-release, season of release, and release habitat as well as improve the catch rates of red drum by recreational anglers. Calendar 2004 was the fifth year of releases and by year's end we had released more than 4 million fish comprising five different size classes.

Experimental releases are complete. Production scale releases will not begin until a new hatchery is developed. Assessments of the effect of the experimental releases as well as a cost-effectiveness analysis are in progress.

A pilot project to develop and evaluate release and sampling strategies used for common snook in Sarasota Bay and southern Tampa Bay, which began in 1996, was continued. This project is a partnership between Mote Marine Laboratory, NOAA Fisheries and FWC. More than 50,000 hatchery-reared snook have been released, the majority in Sarasota Bay. The goals of this project are similar to Project Tampa Bay described above.

Marine Fish Health

Staff in this group monitors the health of aquatic organisms throughout the state of Florida. Over seven hundred red drum were evaluated for Project Tampa Bay. Results continue to suggest that stocked fish are having little to no impact on the health of wild fish, and recaptured

(live fish and invertebrates for aquaria and other uses) in 2004 amounted to over 8.4M individual specimens worth over \$3.2M in dockside value from 5,682 commercial collecting trips. Live rock (aquaculture only) and live sand (both for saltwater aquaria) amounted to 1.1M pounds worth about \$0.44M in dockside value during 2004. The top ten species in dockside value harvested during 2004 in Florida were: stone crab (claws: \$26.4M), pink shrimp (\$23.2M), Caribbean spiny lobster (\$22.0M), red grouper (\$13.3M), blue crab (including soft-shell crabs; \$11.2M), white shrimp (\$9.6M), gag grouper (\$7.9M), bait shrimp (\$5.7M), rock shrimp (\$5.6M), and striped mullet (\$5.4M). The commercial harvest of food shrimp in Florida totaled nearly 27.6M pounds (heads on; \$45.0M dockside value) in 2004 compared with a little over 21.9M pounds (heads on; \$40.8M dockside value) during 2003, but averaged \$1.63 per pound (heads on) in 2004 compared to \$1.86 per pound (heads on) during 2003. Commercial landings during 2003 were roughly similar to 2004, with about 99M pounds landed worth approximately \$172M from



stocked fish are acclimating to health challenges in the wild. Over a thousand calls were received on the marine fish kill hotline (1-800-636-0511) and responded to this year. Ninety-nine percent of those callers reported fish kills, fish with parasites, other aquatic mortality and disease events, or requested information. Eighteen fish kills were investigated by staff and were primarily related to low dissolved oxygen (83%) and red tide (11%). Staff completed the investigation on the cause of ulcers in marine and estuarine fish in Florida. The reports of ulcerative mycosis caused by the fungal pathogen *Aphanomyces invadans* represent new host records for multiple estuarine fish species. Two manuscripts reporting this research will be submitted to the Journal of Aquatic Animal Health for publication. Staff also began a preliminary survey on the health of blue crabs in Tampa Bay, and responded to public concerns about a disease in pink shrimp caused by a microsporidian parasite in the Indian River Lagoon.

Marine Mammals

During 2004 there were 276 manatee mortalities recorded by FWRI. Weekly and monthly updates of manatee mortality data were posted regularly on the FWRI website for public use. In January 2005, a total of 3,142 manatees were counted by 23 observers in 20 areas on both coasts during the FWC's annual state-wide synoptic survey. This was the second highest count on record.

To monitor seasonal occurrence of right whales in the southeast critical habitat, more than 100 aerial surveys were conducted this winter season by FWRI resulting in a total of 158 right whale sightings. This effort contributed to the identification of 28 cow-calf pairs in the southeast. FWRI staff was also involved in disentanglement and necropsy efforts.

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 ~\$200,000 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 178 applications for conservation activities with marine turtles, including nesting beach surveys (92 permits), stranding and salvage work (108 permits), research (42 permits), public turtle walks (27 permits), rehabilitation at captive facilities (17 permits) and educational display (22 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 two 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 sea turtle holding facility inspections. Inspections focus on compliance with FWC's Sea Turtle Conservation Guidelines and ensuring facilities safe for turtles being temporarily or permanently held.
- Staff from the Tequesta Field Lab participated in the Annual Rehabilitation Workshop held at Hidden Harbor Sea Turtle Hospital.
- Staff provided technical expertise on marine turtle protection during review of 269 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 141 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.
- Staff attended the 2005 International Sea Turtle Symposium held in Savannah, Georgia. During this Symposium, staff presented poster papers on disorientation events and lighting impacts documented over the last ten years and a summary of Marine Turtle Permit Holder Activities.
- Staff participated in the Florida Department of Environmental Protection's Turtle Friendly Berm Project as part of the Technical Advisory Group (TAG).

- Staff was invited to present at several local government workshops on sea turtles and lighting issues.
- 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 and gross necropsies are conducted on approximately 40-70 sea turtle carcasses.
- 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.
- Staff coordinated with NMFS and FWS on hurricane response funding for impacts to marine turtles and their habitats in Florida.
- 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 Destin, Manatee, Flagler, Monroe, and Collier Counties as well as staff from the Florida Department of Environmental Protection. To date, approximately 228 individuals have passed the exam, which tests participant's knowledge of sea turtle behavior and specific lighting fixtures.
- Staff was invited to participate as an expert for the Nature Conservancy's "Marine Ecoregional Assessment for Central and South Florida".
- Staff participated in the Archie Carr Working Group and attended meetings on a regular basis.
- FWC staff hosted the 2005 Marine Turtle Permit Holder Workshop, co-sponsored by The Florida Aquarium, for approximately 200 Marine Turtle Permit holders and volunteers. This two day event included approximately sixteen 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 development of brochures for different topics involving marine turtles; 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.

Accomplishments:

- Staff reviewed and prepared comments on the Duval, Volusia, Broward, Palm Beach, and Clay County MPP drafts. The FWC approved the final MPP for Lee County.
- Staff reviewed a total of 560 projects during the year and offered biological opinions and recommendations to reduce or eliminate potential negative effects of the proposed activities. Staff attended numerous Cabinet Aides meetings to assist with agenda items regarding impacts to manatees.
- Staff notified Charlotte County in May 2005 that the FWC intends to consider speed zone amendments in the Placida Harbor area. The county is in the process of forming a Local Rule Review Committee (LRRC) in summer of 2005.
- In October 2004, the city of Jacksonville adopted Ordinance 2004-956-E to amend its existing manatee protection zones. The FWC formally approved the ordinance in December 2004.
- Chapter 2004-343, Laws of Florida, requires the FWC to adopt a rule describing how the measurable biological goals (MBGs) are used when the FWC considers manatee protection rules. In response to this legislation, the FWC published a Notice of Rule Development in the *Florida Administrative Weekly* (FAW) in May 2005. In June 2005, the FWC

Commissioners directed staff to propose changes to Rule 68C-22.001 to address FWC use of the MBGs in rule making.

- The LRRC for Lee County submitted its final report in August 2004. Staff reviewed the LRRC report and, in October 2005, prepared a written response to the report. In December 2005, the FWC Commissioners considered the LRRC report, the staff response to the report, staff's revised recommendations, and public comment, before directing staff to formally propose amendments to the rule. A Notice of Proposed Rulemaking was published in the FAW in January 2005 and a public hearing was held in Ft. Myers in February 2005. The FWC Commissioners conducted the final public hearings in April and June 2005 before approving final amendments with several changes to the proposed zones.
- Chapter 2002-264, Laws of Florida, requires the FWC to adopt rules dealing with the identification of "substantial risk counties" and establishing criteria for the approval of manatee protection plans (MPPs). A Notice of Rule Development was published in the FAW in December 2004.
- In September 2004, Manatee County adopted Ordinance 04-73 to address manatee protection issues throughout most of the county. The FWC formally approved Ordinance 04-73 in February 2005.
- In November 2004, Pinellas County adopted Ordinance 04-80 to add manatee protection zones in the Safety Harbor area. The FWC formally approved the ordinance in February 2005.
- In September 2004, the FWC Commissioners conducted the final public hearing before approving final zones in Tampa Bay. The final rules were filed for adoption with the Department of State in December 2005.
- Public Outreach and Information programs focused on statewide efforts involving various printed materials and the Manatee Treasure Box program which focuses on grade school children. The boxes were developed to provide a free resource to teachers on a loan basis so that they could educate their students about manatees, habitat protection, and their environment. An intranet company worked with staff to develop an e-field trip that is a self-guided tour into the life of the manatee <http://www.eFieldTrips.org>.
- 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. Within the footprint of the Central and South Florida canal system, 150 manatees have died as a result of interactions with only 23 of the numerous water control structures in this region. Ongoing efforts since 1991 through the task force have led the U. S. Army Corps of Engineers (ACOE) and South Florida Water Management District (SWFMD) to retrofit water control structures

and revise operational protocols. These efforts are having a significant influence on reducing structure-caused mortality at retrofitted structures.

- FWC co-chaired the Warm-Water Task Force (WWTF) and the Habitat Working Group with our UFSWS partners during the past year. Both working groups have made significant progress in their tasks under the federal recovery plan.
- 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. This task force has also conducted Manatee Habitat Evaluation Surveys in over 100 miles of flood control canals in the Everglades.
- 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.
- FWC completed an assessment of manatee foraging impacts to aquatic vegetation in Manatee Springs off the Suwannee River. The article was published in the August 2004 edition of *Aquatics*.

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 2004/2005. During FY 2004/2005, 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;
- 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 (2004) reported that sales of Florida aquaculture products exceeded \$95 million in 2003, representing a moderate decline of about 4% from 1999 values. Sales of hard clams and oysters contributed substantially to the decline in reported values; decreasing to \$13 million in 2003 from \$18.3 million in 2001. Production of hard clams was stable, but the unit price for hard clams declined about 20-25% over the period affecting overall product value.

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 1,001 aquaculture facilities during FY 2004/2005. Shellfish producers (485 farmers) make up 48% of the certified farms, 224 ornamental producers make up 22% of the certified farms, 210 food fish producers make up 21% of the certified farms, with the remaining producing live rock, alligators and bait. Certified farms are found in 62 of the state's 67 counties: with the highest number of certified farms occurring in Levy County (20%), Hillsborough County (9%), and Dixie County (8%).



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 645 aquaculture leases containing about 1,509 acres and 78 shellfish leases containing about 1,277 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 (2004 Biennial Report) reported that hard clam sales accounted for 13 million in 2003. However, 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 aqua-farmers 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 2004/2005, the Division collected 62,260 bushels of processed oyster shell from processors in Franklin County, and purchased 600 cubic yards of fossil shell from a local quarry. Shell planting operations were interrupted by the several hurricanes and no 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 258,868 bushels of live oysters were re-planted on public reefs in Franklin, Wakulla, Dixie, and Levy Counties.

Restoring Public Oyster Reefs

Like the other Gulf States, Florida is engaged in restoring 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 2005, the Division implemented an oyster restoration plan that identified 26 sites from Escambia Bay to Waccacassa Bay.

Apalachicola Bay Oyster Harvesting License

An oyster harvesting license is required to harvest oysters from Apalachicola Bay. In FY 2004/05, 714 oyster harvesting licenses were sold, representing a 5% decline from the number of licenses sold in the preceding year and a 20% decline from the previous five-year average.

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 2004/05, 694 sampling excursions were conducted to collect and analyze 14,572 water samples for fecal coliform bacteria, and there were 598 closures and re-openings of shellfish harvesting areas. During FY 2004/05, a total of 100 Shellfish Processing Plant Certification Licenses were issued and 417 regulatory processing plant inspections were conducted. Based on inspection results, 78 warning letters and 34 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.

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES OFFICE OF FISHERIES *Dwight Landreneau, Secretary*

The Marine Fisheries Division is charged with management of the full range of Louisiana's estuarine and marine resources. Division responsibilities are categorized as Fisheries Management Programs and Habitat Protection Programs. Participation in numerous local, state, regional, national and international committees, task forces and councils provides professional expertise in the development of state and federal regulation, legislation and standards governing the wise use of renewable natural resources.

THE HURRICANES OF 2005

Louisiana is second only to Alaska in terms of commercial fisheries production and home to three of the top six commercial fishing ports in the country. Louisiana's recreational harvest is second only to Florida among the states surveyed by the NOAA Fisheries recreational survey. These fisheries resources are not only important to the social and cultural fabric of our coastal communities, but also provide the state and national economy with an important source of jobs, income, and tax revenues. Southwick Associates (2002) data collected for the "2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation" (U.S. Department of the Interior, 2002) indicates that marine commercial and recreational fishing in Louisiana supported \$2.3 billion in retail sales, 36,700 jobs, \$598 million in salaries and wages and generated \$146 million in federal income tax revenue.

The impact of the storms of 2005 has been multifaceted and unprecedented. The impacts included the direct loss of resource, loss of ability to produce income from the available resource, loss of physical assets necessary to capitalize on available resource, impacts to habitats, and diminished capacity to effectively manage fisheries resources. The entire coast of Louisiana was impacted by one or more of the storms of 2005 with southeastern and southwestern Louisiana being particularly hard hit.

Division biologists have documented significant negative direct impacts to oysters. Samples taken on the state's public oyster reefs in September, October, and November (2005), indicated that combined seed and sack oyster mortality totaled 64%. Marine Fisheries' Division staff worked with NOAA Fisheries to re-program \$1.2 million from an existing federal grant (Louisiana Oyster Resource Improvement Grant #NA05NMF4540035) for oyster resources previously impacted by Hurricane Ivan in September 2004. By reprogramming Hurricane Ivan funds, the division was able to utilize licensed commercial oyster harvesters in St. Bernard and Plaquemines Parishes to map the public oyster seed grounds in those parishes. The mapping information will be a valuable asset to future oyster management activities on the public oyster grounds,

helping identify suitable areas for the development of new oyster reefs in the aftermath of Katrina and Rita.

In general, the storms did not directly affect fishery resources other than oysters, but significantly impacted means of accessing those resources. Fish and shellfish commercial landings in Louisiana were significantly decreased in the post-hurricane (September through December 2005) time frame when compared to the same period the previous year. Hardest hit in the short term were the oyster and menhaden fisheries. The menhaden fishery is highly integrated and almost all of its assets are located at a few sites on the coast. It experienced very severe losses. The oyster fishery was impacted both by loss of available resource and precautionary health closures resulting from the storms.

Comprehensive values for vessel losses across the state are not currently available, however vessel participation was significantly reduced in the post hurricane (September through December 2005) timeframe when compared to the same period from the previous year. As of December 2005, 27% of marine facilities still remain closed, 55% are now fully operational, and 6% still are not accessible by automobile. The central coast received the least storm damage and has recovered the quickest. The eastern side of the state has experienced slow recovery with some parishes only having 1 to 3 sites that are operational. The western side of the state is faring a little better with nearly half of the recreational sites per parish being operational, however, the commercial sites are recovering more slowly than the recreational sites. The commercial sites in Cameron Parish in southwestern Louisiana were hit very hard, and have shown slow recovery with only 2 of 19 sites being operational. The availability of basic services, e.g., fuel and ice, has severely impacted recovery.

The number of commercial fishing trips was significantly reduced during the post hurricane (September through December 2005) time period when compared to the same period the previous year. Many people in our coastal communities were displaced by the storm and they have not yet returned. Recreational fisheries, including charter fishing, also saw a marked decline in participation in the September to December time frame. Preliminary data from the National Marine Fisheries Service's MRFSS show declines in the number of fishing trips of about 50% for this period from the same period in 2004.

Roughly one hundred square miles of Louisiana's coastal marsh was destroyed as a result of Hurricanes Katrina and Rita. As vegetation continues to recover, a more complete

picture of the extent and magnitude of the damage to coastal wetland areas will emerge. Oyster mortality resulted primarily when sediment and vegetation from torn-up marshes was deposited over oyster reef areas. Fish kills from low dissolved oxygen levels are a result of area drainages that have been flooded long enough for vegetation to die, decompose and deplete waters of available oxygen. When these waters drain from flooded areas, low oxygen levels are introduced into adjoining water bodies resulting in widespread fish kills affecting numerous predator and prey species.

All Marine Fisheries Coastal Study Area (CSA) facilities sustained infrastructure damage from the storms. Two of the coastal facilities (CSA 1 & CSA 2) were completely destroyed. The New Orleans office flooded and remains unusable; while CSA2 and the Oyster Lease Survey Section re-established operations from LDWF headquarters in Baton Rouge. Slidell (CSA 1) personnel established and continue temporary operations from the Lacombe Fish Hatchery. Grand Terre (Marine Laboratory and CSA 3) staff had partially resumed operations at the Laboratory by late October 2005.

Initially there was a significant loss of efficiency and flexibility in all field sampling. Sampling programs have been reinstated in all major bay systems with accessible stations, and coast-wide data collection platforms are back online. Shrimp, crab, finfish, and oyster data as well as information on debris and damage to fishing grounds are available and being used in fisheries management decisions. Extensive testing of water quality and fish tissue by state and federal agencies has confirmed that Louisiana seafood products remain safe and wholesome.

During and immediately following the storms division staff participated in and provided logistical support for search and rescue operations. We provided information to and worked with the Governor's Office, the Legislature, Congress, the state departments of Health & Hospitals and Environmental Quality, Louisiana Seagrass, LSU Agricultural Center, NOAA Fisheries, the Gulf States Marine Fisheries Commission, the Louisiana Recovery Authority, the Louisiana Fishing Community Recovery Coalition and others to address the needs of the coastal fishery resources, commercial & recreational fishing industries, fishing communities and fishermen.

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 shrimp seasons and the winter offshore shrimp season. Additionally, these same data were used to recommend season extensions and special shrimp 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 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 utilized 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 abilities to correlate juvenile shrimp response and subsequent production to hydrologic conditions. Data collected from the monitoring program were crucial in establishing opening and closing dates for shrimp seasons within Louisiana inside and outside territorial waters. Hydrological and biological data collected on oyster recruitment (spat set) and oyster density and availability estimates were used in formulating management recommendations regarding the oyster season on the public oyster seed grounds and seed reservations. Harvest estimates were determined from boarding report surveys of boats fishing the public seed grounds and seed reservations.

Management Actions

In recognition of differences in shrimp recruitment, emigration and growth patterns among Louisiana coastal areas, the Department has managed the shrimp fishery in inside waters utilizing a shrimp management zone concept. First implemented in 1975, this zoning 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 as follows:

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

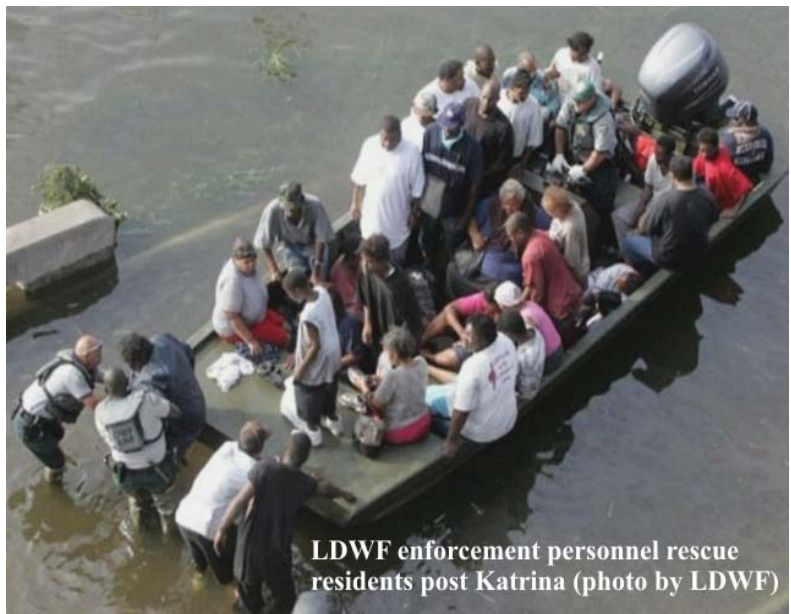
Offshore territorial waters south of the inside/outside shrimp line from the eastern shore of Freshwater Bayou Canal at longitude 92° 18' 33" W to the eastern shore of Belle Pass at latitude 29° 05' 07" N and longitude 90° 13' 30" W closed to shrimping on January 10, 2005.

Offshore territorial waters south of the inside/outside shrimp line and east of the Atchafalaya River Ship Channel at Eugene Island as delineated by the river channel red buoy line to the eastern shore of Belle Pass at latitude 29° 05' 07" N and longitude 90° 13' 30" W reopened to shrimping April 4, 2005.

Offshore territorial waters south of the inside/outside shrimp line and west of the Atchafalaya River Ship Channel at Eugene Island as delineated by the river channel buoy line to the western shore of Freshwater Bayou Canal at longitude 92° 18' 33" W reopened to shrimping on May 16, 2005.

Inshore Shrimp Seasons

The spring shrimp season for Zone 1 opened on May 23, 2005 including Breton and Chandeleur Sounds and closed June 27, 2005 except for that portion north and east of the Mississippi River Gulf Outlet (MRGO) and north of the Gulf Intracoastal Waterway (IGWW) from its juncture with the MRGO to its juncture with the Industrial Canal, including the waters of the MRGO, Lake



LDWF enforcement personnel rescue residents post Katrina (photo by LDWF)

Pontchartrain, Lake Borgne and the open waters of Breton and Chandeleur Sounds described in the menhaden rule (LAC 76:VII,307D).

The remaining portion of Zone 1 closed July 3, 2005 except for that portion of Mississippi Sound from a position along the Mississippi-Louisiana state line at latitude 30° 09' 39.67" N and longitude 89° 30' 00" W thence southeastward to the US Coast Guard navigational light off the eastern shore of Three-Mile Pass at latitude 30° 03' 12" N and longitude 89° 21' 30" W thence northeasterly to a position which intersects the menhaden line as described in the Menhaden Rule (LAC 76:VII, 307D) north of Isle au Pitre at latitude 30° 10' 00" W, which will close January 30, 2006.

The Zone 1 fall season opened August 15, 2005 and closed on December 20, 2005 except for that portion of Zone 1 extending north of the south shore of the Mississippi River Gulf Outlet (MRGO), including Lake Pontchartrain and Lake Borgne which will close to shrimping on January 30, 2006.

The Zone 2 spring season opened on May 16, 2005 and closed on June 27, 2005, while its fall season opened on August 1, 2005 in that portion 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. The remainder opened on August 15, 2005 and closed on December 21, 2005.

The Zone 3 spring season opened on June 2, 2005 and closed on July 3, 2005 except for that portion of the Calcasieu Ship Channel originating at Channel Marker 68 southward to a point originating along the inside/outside shrimp line at Calcasieu Pass 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. The remainder of Zone 3 closed on July 6, 2005. The fall season opened on August 15, 2005 and closed on December 20, 2005.

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 2005 totaled approximately 66.8 million pounds (all species combined/heads-off weight) and accounted for \$133.2 million in dockside sales. Due to the impacts of Hurricanes Katrina and Rita, these figures represent decreases of approximately 21% in landings and 5% in dockside value from levels reported in 2004. Commercial shrimp landings since 1976 have ranged from a high of 93.7 million pounds reported in 1986 to 49.4 million pounds landed in 1983. Brown shrimp landings in 2005 were greatest during May, June and July while white shrimp production peaked in November, 2005 at 13.3 million pounds. Seabob landings were highest during late fall and early winter.

Crabs

Louisiana commercial blue crab landings for 2005 totaled approximately 37.9 million pounds and had a dockside value of approximately \$38 million. Blue crab landings represent a 15% decrease from 2004 landings of approximately 44.4 million pounds. Stone crab landings for 2005 were 649 pounds valued at \$1,777 dockside. Stone crab landings decreased approximately 62% from the 2004 landings of 1,683 pounds.

The major Department activity related to blue crabs in 2005 was the derelict crab trap removal program. In 2005, four crab trap closures and derelict crab trap clean ups were conducted.

- A portion of Sabine Lake over a 10-day period from 6:00 a.m. on February, 18 through 6:00 a.m. February, 27.
- A portion of Terrebonne Bay Estuary over a 16-day period from 6:00 a.m. on March, 5 through 6:00 a.m. March, 20.
- A portion of Breton Sound Estuary over a 16-day period from 6:00 a.m. on February, 26 through 6:00 a.m. March, 13.
- A portion of Vermilion Bay/West Cote Blanche Bay over a 9-day period beginning at 6:00 a.m. on the opening day of the spring inshore shrimp season (May 16) and ending nine days later (May 24) at 6:00 a.m.

A total of 4,623 abandoned crab traps were collected during the four crab trap clean ups. LDWF personnel collected the largest percentage of traps (43.6 percent). Recreational fishermen provided the most effort (41.8 percent). A total of 113 documented volunteers expended 620.9 hours in trap clean up efforts.

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

MOLLUSC PROGRAM

The Mollusc Program manages the oyster resource on over 1.6 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, as well as areas of the Vermilion/Cote Blanche/Atchafalaya Bay system. Seed reservations, public oyster areas, and tonging areas are designated by the legislature. The Department manages four seed reservations, including one east of the Mississippi River (Bay Gardene), one in the Barataria Bay system (Hackberry Bay), and two in Terrebonne Parish (Sister Lake and Bay Junop).

Oysters provide an economic benefit to the state, and the ecological benefits of oyster reefs are very important as well. Oysters are biomonitors of the overall health of the ecosystem and provide forage and shelter habitat for a variety of fish and invertebrate species. Oysters also affect water quality through filter-feeding activities, affect estuarine current patterns, and help provide shoreline stabilization. Because oysters are both economically and ecologically important, wise management of the public oyster resource is critically important to ensure that this valuable species continues to thrive in Louisiana's coastal areas.

The importance of the oyster resource to Louisiana's economy is evident as Louisiana commercial oyster landings had a dockside value of over \$33.3 million in 2005.

Oyster Seasons

Statutory provisions mandate that the Department open the oyster season on Louisiana public seed grounds on the first Wednesday following Labor Day of each year 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 grounds, reservations, and tonging 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 125 square-meter samples are collected each July and over 150 dredge samples are collected from March through October. Square-meter data are collected using SCUBA and the data are used to measure the annual oyster stock size and for yearly season recommendations by the Department. Dredge data are used to monitor the overall health of the oyster resource during the year and to assess recruitment of new age classes of oysters into the population. Field 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. Oyster season on the public grounds generally runs from September to April. Following Hurricanes Katrina and Rita, the 2005 oyster season was delayed in certain areas due to heavy oyster mortalities. Historically, landings from private leases have comprised 60%-80% of annual Louisiana oyster landings, and in 2005 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 2005 measured 3.75 million pounds of oyster meat. In addition, much of the oyster production from the 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, 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 for the exclusive 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. Harvest is restricted to the use of hand tongs in Sabine Lake.

The Calcasieu Lake public tonging area was opened by the Louisiana Wildlife and Fisheries Commission (LWFC) on October 8, 2005 and scheduled to close on April 30,

2006. Calcasieu Lake is also opened and closed within the LWFC seasonal framework by the Louisiana Department of Health and Hospitals (DHH) for water quality concerns based on the level of the Calcasieu River.

The 2005 Louisiana oyster season began on September 7, 2005 with the opening of the public seed grounds east of the Mississippi River and the Bay Gardene Public Oyster Seed Reservation. Both areas were closed again from September 16, 2005 until December 12, 2005 when they were reopened until the final closing date of April 1, 2006. Vermilion, East and West Cote Blanche and Atchafalaya Bay Public Oyster Seed Grounds were also opened on September 7, 2005. Sister Lake Public Oyster Seed Reservation opened on October 22, 2005 for a short season and closed on November 3, 2005.

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 2005. 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 749 renewal applications were processed.

Following Hurricane Katrina, the Oyster Lease Survey Section temporarily moved its operations to LDWF headquarters in Baton Rouge 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.dnr.state.la.us/oyster/>, or its mirror site: <http://oysterweb.wlf.louisiana.gov/oyster/>.

Additional Oyster Projects

Six additional public grounds were designated in 2000 to be developed for oyster production, these grounds include portions of Barataria Bay, Deep Lake, Lake Felicity, Lake Chien, Lake Tambour, and Lake Mechant. Initial site selection for new reefs in these areas was completed in 2002/2003 by utilizing side-scan sonar technology to analyze water bottoms. Barataria Bay, Lake Chien, Lake Felicity, and Lake Mechant were chosen as locations for reef-building activities in fiscal year 2004 funded by the federal government through the Coastal Impact Assistance Program (CIAP). This project placed roughly 35,000 cubic yards of crushed concrete and limestone rock on suitable water bottoms in these areas in May/June 2004. Biological monitoring of the new reefs began immediately and will continue through July 2006. Biological sampling showed the presence of a sizeable oyster resource on each of these new reefs prior to Hurricanes Katrina and Rita, but heavy

oyster mortalities at these locations following the storm were documented by Departmental biologists.

Additional reef building projects were the result of a federal disaster grant secured by LDWF following Hurricane Lili and Tropical Storm Isidore in September/October 2002. Reef building activities in Hackberry Bay and Sister Lake were planned and carried out in May/June 2004. Over 20,000 cubic yards of cultch material were placed on suitable water bottoms in Hackberry Bay and Sister Lake. Biological monitoring began immediately after cultch planting and will continue through July 2006. These reefs also experienced heavy mortalities following the hurricanes of 2005, but showed signs of rebounding.

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 in the field conducting surveys designed to sample coastal waters in an objective manner. Such surveys collect information based on geographic ranges independent of commercial or recreational fishing operations. The Marine Fisheries Division fishery dependent monitoring program collects information from fishers, processors and observers based on methods developed by NMFS for similar programs.

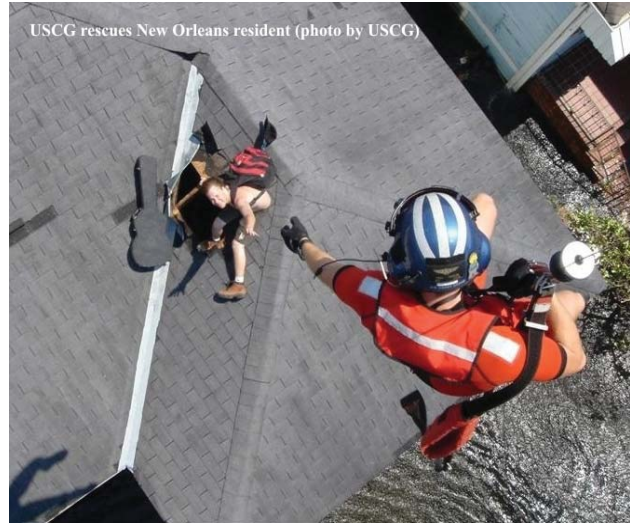
Independent Monitoring

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

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

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

Hydrological readings (conductivity, salinity, and water temperature) 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 2005 sampling year Marine Fisheries field personnel obtained a 94.5 percent completion rate for all seine, gill and trammel net samples combined. The only samples missed were in the areas most heavily impacted by the passage of Hurricane Katrina, where loss of facilities, problems with logistics, and damage to vessels and gear all contributed to major problems with sampling programs.

Dependent Monitoring

The value of commercial landings in Louisiana exceeded \$252 million in 2005, a \$22.7 million decrease from the 2004 landings year. The Department continues to collect commercial statistics through the Trip Ticket Program that was implemented in 1999. Through this program, commercial landings data are collected on a trip basis from wholesale/retail seafood dealers, crab shedders and commercial fishermen holding fresh products licenses. There were over 227,105 commercial fishing trips reported in 2005 producing nearly 0.9 billion pounds of seafood. A major part of the decrease in pounds landed and dockside value were a direct result of the loss of fishing vessels and infrastructure due to the impacts of Hurricanes Katrina and Rita in the fall of 2005.

Empire, Louisiana post Katrina (photo by Daybrook Fisheries)



Starting in May 2000 an electronic trip ticket program was developed and made available to dealers. To date, roughly 110 dealers utilize the computerized program and submit their trip ticket data to the Department electronically. Trip ticket information has been used to enhance the accuracy of stock assessments conducted by state and federal fishery management agencies, and to estimate damages from Hurricanes Katrina and Rita in 2005.

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

The Department continues to monitor recreational fisheries through the Marine Recreational Fisheries Statistics Survey (MRFSS) in cooperation with NMFS and GSMFC. This fisheries dependent program is achieved through dockside interviews of recreational anglers to determine catch and a telephone survey to determine effort. The MRFSS survey in Louisiana reported over 3.9 million marine recreational fishing trips were taken by approximately 0.9 million anglers in 2005. Recreational trips experienced a temporary decrease in the fall of 2005 due to limited access after many marinas and docks suffered catastrophic loss in Hurricanes Katrina and Rita. In 2005, marine recreational anglers caught approximately 14.5 million spotted sea trout and 4.1 million red drum in Louisiana waters.

Finfish Stock Assessments

Division personnel updated stock assessments for black drum, striped mullet, southern flounder and sheepshead in 2005. 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 results 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 results of YPR analysis based on disappearance rate calculations indicate that for the years

assessed (1997-2003) 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 100% of maximum and SPR at 16% to 30%. An M of 0.8 (the highest value within the range examined) would produce yields of 63% to 85% of maximum with SPR at 27% to 52%.

Striped Mullet - The method of estimating fishing rates was modified from a disappearance rate (Z') calculation to a virtual population-based calculation. The results 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 98% of maximum, and SPR near 31%. An M of 0.6 would indicate a more lightly fished stock with yield being 83% of maximum and with SPR being near 65%.

Sheepshead - This year's assessment differs from last year's in that ages were based on an age-length key of aged fish from Louisiana, rather than calculating the ages from a von Bertalanffy growth equation. A virtual population analysis was compared to the disappearance rate analysis used in prior reports for estimation of stock and yield parameters.

The results 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 - 2003) was operating well near $F_{0.1}$ and well below F_{MAX} , with yield of 69% to 81% of maximum, and SPR at 47% to 57%. An M of 0.3 (the highest value examined) would indicate a more lightly fished stock with yield being 32% to 50% of maximum and with SPR being 66% to 78%.

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 citing, 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, a total of thirty-

nine petroleum and other companies have participated in the offshore program and donated the jackets of 149 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 eight reefs and six others were constructed in association with public conservation groups. In working with one of these groups the Department 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. Five new obsolete oil platforms were added to the program as artificial reefs during the 2005.

As the oil and gas industry in the Gulf of Mexico recovers from the devastation of the 2005 hurricane season, they are faced with removing 165 structures and 8 mobile offshore drilling units destroyed or damaged by the storms. Industry has sought alternatives in cleanup activities to reduce the cost of removal and have petitioned the LARP to accept structures at the location they were destroyed. The LARP manages a Special Artificial Reef Sites (SARS) program specifically aimed at establishing artificial reefs under unusual and/or exceptional circumstances, such as occurs 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, Fall Plankton Survey and other plankton and environmental surveys.

The Department collects samples between Southwest Pass of the Mississippi River and Pointe au Fer, and out to the 120-foot depth contour off the Louisiana coast. Louisiana SEAMAP activities include summer (July) and autumn (October) trawl surveys that also collect zooplankton and environmental resource data.

The summer 2005 survey was scheduled for July 5-8, aboard the chartered vessel *Pelican*. However, the passage of Hurricane Cindy forced a rescheduling of the cruise for

July 7-10. The trip was aborted on July 9 due to Hurricane Dennis. Four of 7 scheduled plankton stations and 6 of 12 scheduled trawl stations were sampled successfully.

The fall 2005 survey was conducted October 10-13, aboard the chartered vessel *Pelican*. All 12 scheduled daytime and nighttime demersal trawl stations and seven plankton stations were sampled successfully. There were no stations found to be hypoxic during the fall 2005 cruise, and only one station (15 fathoms), sampled during the July 2005 cruise had hypoxic bottom water.

Oil Spill Contingency Planning and Response

The Department's Oil Spill Task Force continued in 2005 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, Department 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 ten spills that occurred during 2005. These were:

- 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.
- Also in August 2005 Hurricane Katrina caused substantial damage to the oil infrastructure in Southern Louisiana
- This was followed almost immediately in September 2005 by Hurricane Rita in the western portion of the State with more devastating damage to oil structures there.
- October 2005 Gold King/Shell had a mystery spill in Garden Island Bay.
- November 2005 Exxon/Mobile had a pipeline rupture in Raceland.

The Department continued damage assessment activities and monitoring spills.

- 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 Barrataria Bay.
- Restoration planning with Shell/Texaco on a Dec/Jan 2003 pipeline blowout in Terrebonne Bay, south of Cocodrie, LA to discuss restoration projects.
- Injury determination on a March 2003, Exxon/Mobil oil spill in Lake Washington, out of Port Sulphur, LA.
- Injury determination for the April 2002 BP/Amoco pipeline spill in Little Lake in the Barrataria Basin near Galliano, LA.
- Injury determination 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.
- Continual restoration planning 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.
- The final DARP and Settlement Agreement were signed for the September 1998 Equinox well blowout in Lake Grand Ecaille, Plaquemines Parish. The restoration project, a marsh creation project near the site of the blowout, was turned over to NOAA for implementation.
- The final DARP and Settlement Agreement started circulation for the Sonat well blowout in August 1997.

The Department 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 Department is participating with other state and federal agencies in planning restoration of hazardous

materials sites. Two planning activities continue: Bayou Trepagnier in St. Charles Parish and Calcasieu River in Calcasieu Parish.

The Department also evaluated and responded as needed to approximately 3000 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 Louisiana Hydrowatch website <http://la.water.usgs.gov/hydrowatch.htm>. 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.

With the passage of Hurricanes Katrina and Rita in the fall of 2005 this data stream was interrupted by damage to all monitoring stations in the network. While some stations were completely destroyed, some only suffered minor interruptions and were back online in days. Parts were replaced as necessary and all that had not lost the physical platforms were operational by October 2005. Two stations remained offline: 105 at the Rigolets and 117 in the Mississippi Sound.

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

National Coastal Assessment (Louisiana)

The Department participated in the EPA's National Coastal Assessment program (formerly known as the Coastal 2000). Department personnel sampled 50 randomly generated sites in coastal Louisiana for water quality, fish tissue and sediment samples between July and September 2005 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. Results of EPA's comparison are still pending at this time.

In June of 2005 the original five-year program ended and a new two year grant was initiated to continue the work. 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 sampling in the summer of 2006.

Coastal Wetlands

In 2005 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.

Seismic Monitoring

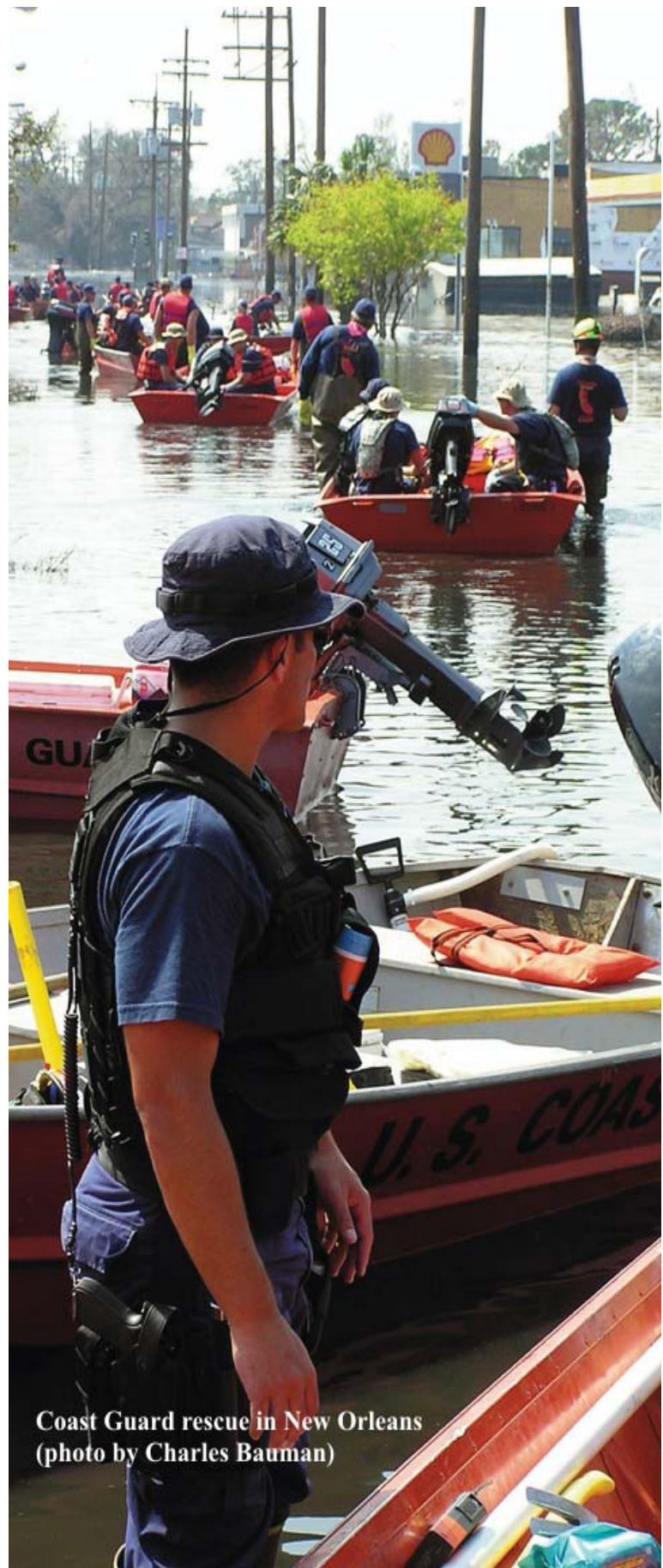
The Seismic Section was created in 1939 specifically to protect oysters, fish, shrimp, wildlife and the associated habitat from injury due to seismic exploration. Seismic agents monitor geophysical companies to protect Louisiana's fish and wildlife resources by ensuring compliance with LDWF seismic rules and regulations. During 2005 the seismic section monitored 30 projects throughout the state.

Caernarvon Biological Monitoring

The Caernarvon Project has been operational for 15 years and in 2005 Marine Fisheries personnel continued to monitor its effects on the fish, wildlife and vegetation populations in the basin. The Caernarvon structure was closed just before Hurricane Katrina, and remained closed for the remainder of 2005. The Breton Sound basin, the receiving basin for the Caernarvon structure sustained substantial damage as a result of Katrina. USGS estimates that over 100 square miles of marsh were lost in the upper part of the basin.

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. The structure was opened for 16 days in July 2005, two days in August 2005 and 29 days for the remainder of 2005. 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.



**Coast Guard rescue in New Orleans
(photo by Charles Bauman)**

Liquefied Natural Gas

In 2005 the Habitat Section also considered impacts that may occur in the Gulf of Mexico as a result of construction and operation of Liquefied Natural Gas regasification facilities. Impacts as they were discussed in the Environmental Impact Statements for these facilities were based on the loss of eggs and larvae in water intake structures for these facilities as well as possible benthic impacts from the discharge of cold water containing anti-fouling compounds. The magnitude of loss of eggs and larvae was based on a few samples from the SEAMAP program, and models developed by the U.S. Coast Guard and its consultants. Since there are so few data available for use in the model, the department argued that there were not enough data to model impacts with acceptable levels of certainty. In February 2005, the Maritime Administration (MARAD) approved an application from Shell-Gulf Landing for an open loop facility about 38 miles off Cameron in the northern Gulf of Mexico. It was the third open loop facility approved. At the time of Hurricanes Katrina and Rita, there were three additional open loop facilities with license applications pending, Freeport McMoran Main Pass Energy Hub, ExxonMobil Pearl Crossing, and Conoco Phillips Beacon Port. MARAD stopped the time clock on these applications after the hurricanes until January 2006. Three of the proposed open loop projects off Louisiana were subsequently withdrawn in 2006 including one that had already been licensed. One applicant changed their application from an open loop regasification system to a closed loop system, which avoided large impacts related to water intake.

RESEARCH PROGRAM

Lyle S. St. Amant Marine Laboratory

The Marine Laboratory's primary mission is to conduct the research required to manage Louisiana's marine fisheries. The laboratory is made available for the use of other Department and non-Department entities engaged in fisheries management, enforcement, coastal restoration, marine education, and serves as headquarters of Coastal Study Area III in the Barataria Bay estuarine system. Several LSU, 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 2005 Louisiana used the marine share of its Sport Fish Restoration Funds in support of the following projects and activities.

Marine Boating Access

During 2005, this project continued development of marine boating access for recreational anglers. It is an objective of the Department to strengthen its ability to meet effectively the consumptive and non-consumptive needs of the public for marine fish resources.

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

The purpose of this research is to gain understanding of differential habitat utilization and energetics of natural vs. manmade oyster reefs for selected fish species. The project 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 department, New Orleans City Park and the University of New Orleans. 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 2005 calendar year, otoliths were collected from black drum (1108 collected, 1101 aged), striped mullet (665 collected, 665 aged), sheepshead (597 collected, 593 aged), gray snapper (254 collected, 250 aged), spotted seatrout (1172 collected, 1170 aged), and red drum (886 collected, 864 aged).

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, LA. 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 department and Louisiana State University Coastal Fisheries Institute. 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. This project is currently in the third phase of continuing research. Phase one started on September 1, 2001 and was completed on June 30, 2003. Phase two started on October 26, 2003, and is scheduled to be completed by 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 quantify 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, Louisiana

Department of Wildlife and Fisheries and Louisiana State University 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 is scheduled for completion by 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 2005, preparation and development of protocols for the Marine Sport Fish Tagging Study continued, recruitment of volunteer anglers decreased due to recovery efforts from the hurricanes and the associated pond based experiments were abandoned due to damage from Hurricane Katrina. An additional 726 spotted seatrout and red drum were tagged and released in Barataria Basin during 2005. This is a cooperative project between the Department, Louisiana State University, and the Audubon Aquarium of the Americas. This project started on July 1, 2004 and is scheduled to be completed by June 30, 2008.

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

This project will determine whether food web assemblages and trophic positions of sea trout differ among three distinct habitats using carbon and nitrogen stable isotope analysis and fatty acid analysis. This is a cooperative project between the department and the University of New Orleans. This project started on July 1, 2004 and is scheduled to be completed by June 30, 2007.

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

William W. Walker, Executive Director

MARINE FISHERIES MANAGEMENT

Objectives

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

- Design and initiate projects to collect and analyze data required for population dynamics estimates and other fisheries management projects;
- Develop scientifically-based management recommendations;
- Monitor the condition of fish stocks and the fisheries that depend upon them;
- Provide information transfer and liaison activities with regional fisheries management entities and others;
- Provide technical support to the Mississippi Commission of Marine Resources (MCMR) in developing fishery management plans, amendments, stock assessments, and technical analysis;
- Provide a state representative to serve on fisheries related boards, committees, panels, etc. as required; and
- Provide administrative services, general maintenance, locate funding sources, and other fisheries management support services as required.
- August 29, 2005 Hurricane Katrina hit the Mississippi Gulf Coast and completely flooded the Office of Marine Fisheries we lost all equipment and data, but most importantly no one was hurt or killed. Time after the storm consisted of working closely with other States and Federal agencies, local fishermen and seafood dealers on damage assessment, recovery and monitoring to help the seafood industry to begin restoration efforts.

Status

During 2005, 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.



Long Beach, Mississippi coastline post Katrina (photo by ADCNR/AMRD)

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

During 2005, 80,125 sacks of oysters were harvested. 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.

Hurricane Katrina destroyed over 90 percent of Mississippi’s oyster, along with two out of the three oyster check stations. The third check station was severely damaged. Additionally, the DMR first floor offices were destroyed, resulting in losses of most of the shellfish related computers, files and other records.

Major Accomplishments

- Cultch materials were planted to enhance oyster reefs (funded by shell retention fees collected from oyster harvesters and processors as authorized by statute.
- Several hundred acres of oyster reefs were cultivated with MDMR equipment and personnel.
- Continued collection of shell retention fees to generate funds for shell planting and reef revitalization.

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 306 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. Over thirty 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 2005.
- Damage assessment to the shrimp and crab fisheries was conducted in the wake of Hurricane Katrina.

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 Program

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 14 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.

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;
- Provide assistance to the Mississippi Food Safety Task Force in promoting 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 3,509 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;
- Participated in the Mississippi Food Safety Task Force with the goals of education, communication, cooperation, and coordination with the other member state agencies in the promotion of food safety with emphasis on raw seafood handling, risks on eating shellfish, and cooking seafood;
- Participated in the Food Security Symposium held in Jackson, Mississippi;
- Hosting training courses on Basic HACCP and plant sanitation in April and co-sponsored training courses in September 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;

- Conducted onsite visits to post-harvest processors and seafood dealers to document the different post-harvest processing technologies;
- Developed a generic post-harvest processing HACCP Plan for individually quick-frozen technologies;
- 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 a video on “Available Technologies in Post Harvest Treatment of Oysters;” and
- 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

Shrimp – 19

Crab – 11

Oyster – 18

Total number of seafood sanitation/processing permits – 48. These 48 permits represent 506 inspected seafood units. Examples of seafood sanitation and health safety regulatory activities conducted by the Seafood Technology Bureau include: 3,509 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.

From: Posadas, B.C. 2007. Economic Assessment of the Impacts of Hurricane Katrina on Mississippi Seafood Processors and Dealers. Mississippi-Alabama Sea Grant Publication No. MASGP-06-027 and Mississippi Agricultural and Forestry Experiment Station Information Bulletin 435. 23 pages.

Estimated Annual Gross Sales Lost Due to Lost Market Channels of the Mississippi Seafood Processing Plants and Seafood dealers and Land-Based Support Facilities						
County	Seafood processing plants			Seafood dealers		
	Population	Percent lost	Annual sales lost	Population	Percent lost	Annual sales lost
Hancock	9	63.3%	5,927,688	19	83.0%	24,689,512
Harrison	34	45.6%	45,608,813	39	52.3%	14,990,198
Jackson	14	76.9%	14,298,395	21	49.4%	1,943,137
Others	12	30.0%	1,087,247	62	22.9%	1,184,729
Total	69	57.1%	81,006,872	141	47.6%	42,350,434
Total projected annual gross sales for all sectors¹						\$123,662,056

¹ - Including \$304,750 for the land-based support facilities.

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 2005 (September 1, 2004 through August 31, 2005) 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 2005 included 774 gill net sets; 2,130 bag seine tows; 2,625 bay and gulf trawls; and 1,080 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 and four long line samples in 2005.

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.

External Science Review

The first phase of external review of science-based



Sabine Pass, Texas post Rita (photo by TPWD)

assessment programs of Coastal Fisheries and Inland Fisheries by a team assembled by the American Fisheries Society was completed. Various recommendations resulted from the collection of information and analysis by the American Fisheries Society and the National Academy of Sciences. The staff has implemented many of the recommendations.

Crab Trap Cleanup Program

During the 2005 closure held February 18-27, 234 volunteers using 78 vessels and expending approximately 1,900 man-hours of effort, plus numerous TPWD staff, removed 2,509 derelict traps coastwide. This effort brings the total number of traps removed since the program began in 2002 to 18,008. Most (73%) of the traps were removed from Galveston Bay (48%) and San Antonio Bay (25%) respectively. Additionally, 49 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. Otoliths were collected from red drum and spotted seatrout to estimate age structure of Texas populations and update age-length keys for these fish. Projects continued to identify spotted seatrout spawning areas and examine reproductive biology and age and growth of Atlantic croaker and sand seatrout. Final reports were completed for spotted seatrout spawning areas and

Atlantic croaker life history. 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 initiated. A cooperative project with Texas A&M University (Dr. John Gold) was initiated 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. 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 Actions and Regulatory Changes

The 79th Texas Legislature met in 2005 passing five bills that affected coastal issues.

H.B. 883 allows private citizens, groups and/or associations to deploy artificial reef material under guidelines and rules established by the Texas Parks and Wildlife Commission. It also amended Transportation Code to allow abandoned vessels to be used in the TPWD artificial reef program. These provisions pave the way for new reefs made of diverse materials to benefit the fishery resources biologically, commercially, and recreationally.

S.B. 272 and 454 establish a license moratorium for commercial oyster and Gulf shrimp licenses, respectively and were in direct response to the overcrowded conditions in the Gulf of Mexico.

These bills essentially create the same type of limited-entry management approach that has been beneficial for bay shrimping and commercial oyster fishing in recent years. The industry has suffered in recent years from new

entrants into the fishery market and the aim is to reduce this legislation is to reduce these effects on both fisheries.

S.B. 489 amended the Water Safety Act to authorize the TPWC to establish rules and procedures for revocation and suspension of marine dealer licenses; requires dealers, distributors, and manufacturers to enter into a license agreement with TPWD; and redefines “dealer” to eliminate the requirement that a dealer be at an established or permanent place of business.

H.B. 2096 amended the Natural Resources Code and Parks and Wildlife Code to enhance the ability of the Land Commissioner to remove wrecked and derelict vessels and structures from coastal areas.

Relative to the Coastal Fisheries Division, this bill requires that a person who is selling a license to TPWD under the shrimp license buyback program must sign a contract acknowledging that a person who unlawfully abandons or disposes of a vessel is subject to criminal and civil penalties, promising not to do so, and acknowledging that failure to comply may lead to forfeiture or any money received for the shrimp license.

TPWC Rule-making Actions:

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

A rule was adopted that would authorize the Executive Director to close areas affected by freeze events until the freeze event is over. The Executive Director would provide adequate notice to the public regarding the closing of affected areas and similarly publicize the reopening of those areas to fishing when the freeze condition has passed. These closures would be limited to the deeper areas where fish are known to congregate in freezes and would end as soon as possible.

Rules were adopted that closes the waters and mud flats under and around the bridge and causeway at Port Isabel and South Padre Island to harvest of live shell bearing mollusks, starfish, and sea urchins during the critical winter neap tides (from November 1 through April 30).

An aggregate daily bag limit of 15 univalve snails was established, to include no more than two of each of the following species: lightning whelk,

giant eastern murex, and horse conch, Florida fighting conch, pear whelk, banded tulip, and Florida rocksnail.

The definition of the measurement of the take of commercial oysters was changed from “Barrel” to “sack” to place statutory volumes in a context understandable to fishermen by using their own terminology and standardizing it as a measurement. The daily bag limit of oysters was reduced from 150 sacks to 90 sacks, and converted the possession limit of 2 barrels of unculled oysters in possession to 6 sacks to reflect the changed units.

Pursuant to SB 489 which affected rules relating to Marine Licenses and revocation and suspension procedures for Marine Licenses, the TPWC adopted refinements to the procedures to register documented vessels which also more clearly defines the requirements to register with TPWD a new, used, or previously documented vessel, and development of a mechanism to allow the TPWD to revoke or suspend a marine license.

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 2005 a total of 12.5 million red drum fingerlings and 3.2 million spotted seatrout fingerlings averaging 35.2 mm TL were stocked into marine water. Approximately 553, 678 red drum fingerlings were released into inland freshwater reservoirs. Cutting-edge



Hurricane Rita aftermath (photo by Alex Kendall)

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 193,000 visitors in 2005. The Marine Development Center toured 15,312 visitors, and the PRB satellite pond facility received 62 visitors. These facilities, touted as the world's largest red drum hatcheries, represent a unique merger of fisheries science and visitor education.

Habitat Protection

Other coastal fisheries news in FY05 included the Lavaca Bay legal settlement with Alcoa Inc. and Alcoa World Alumina L.L.C. that provides for restoration and cleanup of mercury-contaminated sediments in the bay as well as soil contamination of the Point Comfort/Lavaca Bay Superfund Site.

The coastal fisheries habitat staff was awarded one of two National Wetland Conservation awards from the United States Fish and Wildlife Service for its work on the Delehide Cove Protection and Restoration Project. The project was recognized in the group category, which reflects upon the staff's philosophy of coalition building

and partnership as key components of coastal conservation. The project team consisted of federal and state partners as well as representatives from the energy sector and from local homeowners groups. The project protected over 250 acres of estuarine habitat by constructing 8,100 linear feet of breakwater and restoring 55 acres of coastal marsh.

Artificial Reef Program

The Artificial Reef Program was responsible for maintaining 54 permitted reef sites and six buoys (five permanent). The program received six petroleum structures in the Outer Continental Shelf area of the Gulf of Mexico in 2005. Three structures were deployed in the High Island area (HI-A-310, HI-A-532 and HI-A-492); two structures were deployed in the Brazos area (BA-A-7 and BA-A-39) and one structure was deployed in the Matagorda Island area (MI-A-7). Five structures were removed by explosives and towed to an appropriate site. The structure in HI-A-310 was partially removed by mechanical cutting and reefed in place. The Texas Artificial Reef Fund received \$705,340 in donations. Nearshore reefs offshore Port Isabel and Galveston were further enhanced with appropriate material. An additional 4 reef balls were deployed at the Port Isabel Reef (PS-1169L) to enhance the area with the existing 42 reef balls. Mitchell's Reef (GA-189) was enhanced with 20 quarry rocks (2-5 tons each) and 37 concrete blocks (1.5 tons each). An exhibit and workshop at the Houston Sea Space Exposition in June 2005 promoted the understanding of artificial reefs.

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

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 2005, commercial shrimp fishing in federal waters off Texas was closed May 15 through July 15.

Gulf Shrimp Fishery Permit Moratorium

In August 2005, the GMFMC submitted Amendment 13 to its Shrimp FMP to NOAA Fisheries Service for implementation. Amendment 13 revised federal permitting requirements for the shrimp fishery of the Gulf of Mexico EEZ, including the establishment of a moratorium on the issuance of federal commercial shrimp vessel permits; 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 is the establishment of a 10-year moratorium on the issuance of federal commercial shrimp vessel permits. Effective October 26, 2006, qualified shrimp vessel owners may apply for and receive a commercial shrimp vessel moratorium permit. To be eligible for a commercial shrimp vessel permit under the moratorium, vessels must have been issued a valid commercial shrimp vessel permit prior to and including December 6, 2003. Additionally, an owner who sold his qualified vessel, had his qualified vessel repossessed, or otherwise lost use of his qualified vessel (i.e., damage, sinking, unaffordable repairs), but who obtained, prior to September 26, 2006, a valid commercial shrimp vessel permit for the same vessel or another vessel equipped for offshore shrimp fishing, of at least 5 net tons, and documented by the Coast Guard, is eligible for a permit under the moratorium.

Eligible shrimp vessel owners have until October 26, 2007, to apply for a shrimp vessel moratorium permit. After that date, no applications for commercial vessel permits for Gulf shrimp will be accepted, even when the applicant otherwise meets the permit eligibility criteria. While there is a 1-year period to obtain a moratorium permit, the permit is needed if the vessel is shrimping in federal waters of the Gulf of Mexico beginning on March 26, 2007. Permits under the moratorium are fully transferable, allowing

permitted 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 and vessel and gear characteristics.

Gulf Reef Fish Fisheries

Charterboat/Headboat Permit Moratorium Emergency Rule

On April 1, 2005, NOAA Fisheries Service published an emergency rule for obtaining Gulf charterboat/headboat permits under moratorium. Permit owners who received their Gulf charter vessel/headboat permit under the moratorium or a letter of eligibility for such a permit, were not eligible to apply. The reopening extended to historical participants in the fishery who, for whatever reason, failed to apply during the moratorium application period. Eligibility for such permits during the reopening was limited to applicants who:

- 1) met the three original moratorium permit criteria,
- 2) were not issued an original charter vessel/headboat permit or letter of eligibility under the moratorium for which they were eligible, and
- 3) could demonstrate economic harm as a result of failure to obtain a permit under the moratorium. The emergency rule was for 120 days and ended on August 1, 2005.

Red Snapper

In November 2004, NOAA Fisheries Service approved Amendment 22 whose final rule was implemented on July 5, 2005. This amendment set biological reference points and status determination criteria for red snapper, established a rebuilding plan for the red snapper stock, and specified a reporting program to improve bycatch monitoring in the reef fish fishery. This rebuilding plan is designed to end overfishing in 2009/2010 and rebuild the stock to B_{MSY} by the year 2032. Later in 2005, a new stock assessment was conducted indicating red snapper catch and bycatch levels in the directed red snapper and shrimp fisheries are jeopardizing the success of the rebuilding plan. NOAA Fisheries Service is developing an interim rule to set total allowable catch (TAC) and reduce bycatch in the directed and shrimp trawl fisheries for 2007 while the GMFMC is working on long-term measures to ensure compliance with the rebuilding plan.

Vermilion Snapper

On November 5, 2003, NOAA Fisheries published

notice that the vermilion snapper fishery in the Gulf was designated overfished and undergoing overfishing. The GMFMC developed Amendment 23 to address overfishing for this species and institute a rebuilding plan. NOAA Fisheries Service implemented measures developed in this amendment on July 8, 2005, which included an increase in the minimum size limit for the recreational and commercial fisheries, a reduction in the bag limit, and a commercial closed season.

Commercial Grouper Trip Limit

On February 17, 2005, NOAA Fisheries Service published an emergency rule establishing commercial trips limits for the shallow- and deep-water grouper fisheries. These trip limits were established to slow the rate of grouper harvest and allow the fishery to remain open longer. The trip limits were in response to a November 15, 2004, quota closure of the shallow-water grouper fishery. The emergency rule established the following trip limits:

- 1) On March 3, 2005, a 10,000 pound trip limit for shallow- and deep-water grouper combined was in effect;
- 2) if on or before August 1, 2005, more than 50 percent of either the shallow-water grouper quota or red grouper quota was reached then the trip limit was reduced to 7,500 pounds; and
- 3) if on or before October 1, 2005, more than 75 percent of the shallow-water grouper quota or red grouper quota was reached then the trip limit was reduced to 5,500 pounds.

On October 10, 2005, NOAA Fisheries Service closed the shallow-water grouper (including red grouper) commercial fishery for the remainder of the year because the quota was projected to be met.

On December 29, 2005, NOAA Fisheries published a final rule implementing approved actions in a regulatory amendment to the Reef Fish FMP. The final rule established a 6,000 pound gutted weight trip limit for shallow- and deep-water grouper combined. The intent of this trip limit was to moderate the rate of commercial harvest and prolong the commercial fishing season. The rule will become effective January 1, 2006. The emergency trip limits implemented in 2005 were terminated upon implementation of this rule.

Recreational Grouper

On August 9, 2005, NOAA Fisheries Service implemented an interim rule to reduce overfishing of recreationally caught red grouper and minimize potential adverse impacts on other grouper stocks that could result from a shift in fishing effort from red grouper to other grouper species. The interim rule reduced the recreational red grouper bag limit from two to one fish per angler per day, reduced the aggregate grouper bag limit from five to three fish per angler per day, and prohibited the harvest of all recreationally caught grouper from November 1 to

December 31, 2005. NOAA Fisheries Service was sued shortly after implementation of the interim rule, and on October 31, 2005, a court decision concluded interim measures could only be applied to grouper species undergoing overfishing. Red grouper was the only Gulf of Mexico grouper species undergoing overfishing. Based on the court decision, interim regulations were modified as follows:

- 1) the aggregate grouper bag limit was increased from three to five fish per person per day, and
- 2) only red grouper were prohibited from being recreationally harvested during November-December 2005. The one red grouper bag limit was not changed. In November 2005, the GMFMC approved a regulatory amendment to the Reef Fish FMP.



NMFS Pascagoula Lab-post Katrina (photo by NMFS)

Commercial Reef Fish Limited Access System

On July 25, 2005, NOAA Fisheries Service published a final rule implementing Amendment 24 prepared by the GMFMC. The final rule replaced the commercial reef fish permit moratorium with an indefinite limited access system for the commercial reef fish fishery. The intended effect of the final rule was to provide economic and social stability in the fishery by preventing speculative entry into the fishery and capping participation at current levels. The final rule became effective August 17, 2005.

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 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 will implement resulting regulations on August 9, 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 VMS on board vessels with federal commercial permits for Gulf

reef fish, including charter vessels/headboats with such commercial permits (will become effective December 7, 2006); 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 23, 2005.

The shallow-water grouper (red, gag, black, red hind, rock hind, yellowfin, yellowmouth, and scamp) commercial fishery was closed on October 10, 2005.

The red snapper commercial fishery was extended an additional 21 days during the 2005 fishing season. The season was extended for both fishing years to afford fishermen the opportunity to catch the commercial quota of 4.65 million pounds, which had not been met in the normal fishing year.

Coastal Migratory Pelagics Fisheries: King and Spanish Mackerel

Quota Monitoring

- In 2005, the commercial fishery for king mackerel in the western zone of the Gulf of Mexico closed on

- November 17.
- The commercial gill net fishery for king mackerel in the southern Florida West Coast closed on January 28, 2005.
 - The commercial hook-and-line fishery for king mackerel in the Florida East Coast subzone was increased to 75 fish per day effective February 1 each year, and the fishery 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 2005, but the fishery did not reach its quota during this year.
 - The commercial hook-and-line fishery for king mackerel in the northern Florida West Coast subzone did not meet its quota in 2005.

PROTECTED RESOURCES DIVISION

Biological Opinions

- Completed a biological opinion for activities associated with granting funds to individual states for reseeding, rehabilitation, and restoration of oyster reefs in Alabama, Florida, Louisiana, and Mississippi due to damage from Hurricane Ivan.
- Completed two emergency rules to allow the use of tow times in lieu of TEDs. One of these rules and a 30-day extension were for MS, AL, and LA after Hurricane Ivan and the other rule was for MS, AL and LA after Hurricane Katrina. We have drafted an emergency rule package for TX and LA for Hurricane Rita.
- Registered approximately 5,500 fishermen under the Marine Mammal Authorization Program.
- Reissued (one year extension) all Letters of Authorization to the Marine Mammal Stranding Network participants in the Southeast.
- Oversaw regional involvement in response and rehabilitation efforts from the March mass-stranding of rough-toothed dolphins in Marathon, Florida.
- Completed status review for three *Acropora* species, published proposed rule to list elkhorn and staghorn coral, and held public hearings.
- Initiated status review for the Goliath grouper.
- Secured positions on the oyster status review team for experts from each Gulf state.
- Provided technical assistance to the Mississippi Department of Marine Resources for preparation of an ESA section 6 cooperative agreement.
- Completed a biological opinion for Minerals Management Service regarding hopper and hydraulic cutterhead dredging associated with Sand Mining for Coastal Restoration Projects along the Coast of Louisiana, Gulf of Mexico.
- Completed a biological opinion for the Jacksonville District COE regarding reconfiguration, expansion and dredging of an existing marina in Biscayne Bay, Miami-Dade County, Florida.
- Completed a biological opinion for the Mobile District COE regarding the Cadet Bayou Navigation Dredging Project and its impact to Gulf sturgeon in Hancock County, Mississippi.
- Completed a biological opinion for the Jacksonville District COE regarding dock construction and its impact to Johnson's Seagrass in Miami-Dade County, Florida.
- Completed a biological opinion for the Mobile District COE regarding the East Pass Dredge Project and its impact to the Gulf sturgeon in Destin, Florida.
- Completed a biological opinion for the Mobile District COE regarding maintenance dredging of the Gulf Intracoastal Waterway, and its impact to Gulf sturgeon, in Apalachicola Bay, Florida.
- Completed a biological opinion for the Jacksonville District COE regarding installation of a new seawall footer and construction of a marginal dock located in a residential canal leading to Biscayne Bay, Miami-Dade County, Florida.
- Completed a biological opinion for the Jacksonville District COE regarding construction of a dock and its impact to designated critical habitat for Johnson's Seagrass in Biscayne Bay, Miami-Dade County, Florida.
- Completed a biological opinion for the Jacksonville District COE regarding installation of 24 mooring anchors and a floating dock located in Biscayne Bay, Miami-Dade County, Florida.
- Completed a biological opinion for the Jacksonville District COE regarding the dredging of two artificial canals off Lake Worth Lagoon, Palm Beach County, Florida.
- Completed Amendment 23 to the Fishery Management Plan for the Reef Fish Fishery of the Gulf of Mexico.
- Completed Amendment 1 to the Gulf of Mexico Regional Biological Opinion on Hooper Dredging.

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 affect essential fish habitat (EFH) and other fishery resources and, ultimately, the production of import 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 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; corporations; and private 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 2005, the HCD:

- Reviewed 3900 individual proposals to construct in coastal waters or wetlands.
- Reviewed 43 large federally-constructed or sponsored projects.
- Recommended measures to protect living marine resources on over 980 proposals, which included detailed conservation recommendations on 273 EFH consultations initiated by federal action agencies.
- Completed reviews on 116 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 2005, 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, and 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 FY05, NOAA Fisheries received approximately \$1.5 million in engineering and design funds to initiate evaluation of the South Pecan Island freshwater introduction project. This project is designed to move fresh water from areas north of Louisiana Highway 82 where it is in oversupply southward across the highway to brackish marsh areas in need of fresh water and nutrients. NMFS also received \$30 million in construction funds to implement the Pass Chaland to Grand Bayou Pass project that would restore more than 500 acres of barrier island and stabilize more than 2.5 miles of barrier island shoreline.
- Assisted the Corps of Engineers with hurricane recovery efforts by providing expedited reviews of proposed restoration and emergency relief activities in response to Hurricanes Charley and Ivan.
- Assisted the Sustainable Fisheries Division in completing Amendments to the Fishery Management Plans of the Gulf of Mexico and Caribbean Fishery Management Councils to address the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act in accordance with the settlement agreement for the *American Oceans Campaign vs. Department of Commerce* lawsuit. The amendments identified and described EFH, identified habitat areas of particular concern, and identified measures to minimize the adverse effects of fishing on EFH.
- Through formal agreement with FL 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 NMFS-trust resources.
- Participated in ecosystem planning activities through active membership in various partnerships including the Louisiana Coastal Area Feasibility Study, Florida's Subcommittee on Managed Marshes, and National Estuary Programs in Texas, Louisiana, Mississippi, and Florida.
- 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 2005, 102 grants and cooperative agreements totaling \$38,128,983 were awarded to states, universities, non-profit/profit institutions, and individuals. Three fishery management councils in the Southeast U.S. received a total of \$5,376,139 in 2005 to conduct fisheries management activities in accordance with the Magnuson-Stevens Fishery Conservation and Management Act. NMFS SERO awarded \$4,681,868 to the Institute for Marine Mammals Studies for the Center for Marine Education and Research – Ocean Expo Complex. The educational facility will support and accommodate educational programs consistent with the Marine Mammal Protection Act and the National Ocean Policy, with emphasis on dolphins and other marine

mammals, both in the wild and in captivity.

- The Southeast Area Monitoring and Assessment Program (SEAMAP) - \$1,154,817
- The State-Federal Cooperative Fisheries Statistics Program - \$1,062,419
- The Anadromous Fisheries Program - \$104,879
- The Interjurisdictional Fisheries Program - \$967,410
- Atlantic Coastal Fisheries Cooperative Management Act Program - \$726,047
- Atlantic Coastal Cooperative Statistics Program - \$220,367
- The Marine Fisheries Initiative (MARFIN) Program – Fourteen new awards totaling \$1,513,193 and six previous multi-year awards were funded totaling \$465,479.
- The Saltonstall-Kennedy (S-K) Grant Program – The competitive program was not conducted in 2005 due to an insufficient funding allocation. The Gulf and South Atlantic Fisheries Development Foundation, Inc. received \$1,000,000 for Vibrio/Oyster Education. Additionally, Wild American Shrimp, Inc. received \$1,000,000 for marketing of Gulf Shrimp.
- The Cooperative Research Program - \$1,380,955
- Unallied Science Program - \$5,734,394
- Unallied Industry Projects - \$936,373
- Unallied Management Projects - \$9,000,000
- Cooperative Science and Education Project - \$2,804,643

SOCIO-ECONOMICS PROGRAM

Review, assessment, and/or authorship activities continued for 13 Gulf fishery management plans and amendments including Reef Fish Amendment 18A (vessel monitoring systems), Reef Fish Amendment 22 (red snapper rebuilding plan), Reef Fish Amendment 23 (vermillion snapper rebuilding plan), Reef Fish Amendment 24 (reef fish limited access), Reef Fish Amendment 26 (red snapper IFQ), Reef Fish Amendment 25 and Coastal Migratory Pelagic Amendment 17 (for-hire permit moratorium), two reef fish temporary rules (grouper commercial trip limits and grouper recreational restrictions), Shrimp Amendment 13 (limited access), the Essential Habitat Amendment, 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, and the GMFMC Socioeconomic Panel. Other activities in 2005 included:

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

model, commercial fishing participation case studies, development of Florida Bureau of Seafood and Aquaculture point of sale information for wild-harvested shrimp, and a Southern Shrimp Alliance generic shrimp public relations development project.

- Provided input and review services for the development of a statement of work to develop a model to assess the impacts of LNG terminals.

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

Wayne Swingle, Executive Director

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

The Council consists of 17 voting members:

- the Southeast Regional Administrator of NMFS (or his designee),
- the directors of the five Gulf State marine resource management agencies (or their designees),
- eleven 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, and
- four non-voting 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) are comprised of recreational and commercial fishermen, charter boat operators, environmentalists, buyers, sellers, and consumers who are knowledgeable about a particular fishery.
- *Scientific and Statistical Committees* (SSCs) are comprised of economists, biologists, sociologists, and natural resource attorneys who are knowledgeable about the technical aspects of fisheries in the Gulf.
- *Stock Assessment Panels* (SAPs) are comprised of 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) is comprised of

sociologists, anthropologists, and economists who review the findings of the SAPs, and advise the council of the social and economic impacts of letting 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. In 2005, 12 new appointments were made to various advisory panels, seven new appointments were made to the SSCs, and one new appointment was made to the Socioeconomic Panel.

The Council also appointed members to a new Ad Hoc Grouper IFQ Advisory Panel. The group will begin work on a possible IFQ plan for Gulf grouper.

FMPs

In 2005, 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 Amendment 13 to the Shrimp FMP. The amendment defines MSY, OY, the overfishing threshold, and the overfishing condition for royal red and penaeid shrimp stocks that previously lacked such definitions.

The amendment includes a standardized bycatch reporting methodology through the use of paper logbooks, electronic logbooks, or observers, and the requirement of a Gulf shrimp vessel and gear characterization form.

Amendment 13 also establishes an endorsement to the existing federal shrimp vessel permit for vessels harvesting royal red shrimp and a moratorium on commercial shrimp vessel permits. It also requires the reporting and certification of landings during the moratorium.

The regulatory amendment, currently under development, would also examine reductions in both red snapper and total finfish, and consider the certification of three funnel-type BRDs, such as the Expanded Mesh and the Extended Funnel. The Fisheye BRD could be eliminated altogether.

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 2005. 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.

Shrimp Amendment 14 was combined with Reef Fish Amendment 27 and the joint amendment will address bycatch in the shrimp fishery and directed red snapper fishery, as well as the rebuilding of the red snapper stock.

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.

Vessels must also possess a specific set of release gear and adopt guidelines for the proper care of incidentally caught sawfish.

A new red snapper stock assessment presented to the Council this year indicates that the red snapper stock remains overfished and overfishing continues. The Council is working on joint Reef Fish Amendment 27/Shrimp Amendment 14 that proposes to adjust TAC in order to successfully rebuild the stock as prescribed in Amendment 22. It also will address bycatch issues in both the shrimp fishery and the directed red snapper fishery.

Scoping meetings for the joint amendment are scheduled for early 2006.

The Council submitted for approval Reef Fish Amendments 24 and 25, both related to permit moratoria.

Amendment 24 establishes a permanent limited access system for commercial reef fish vessels.

Amendment 25 extends the Charterboat/Headboat permit moratorium for a finite time period (5 or 10 years).

A referendum on Amendment 26, which will establish an IFQ system for the commercial red snapper fishery, went out for a final vote. Fishermen holding Class II red snapper permits are being asked to decide whether the Council should submit the amendment for approval and implementation. Results of the referendum are expected to be presented to the Council in early 2006.

IFQ programs are intended to reduce overcapacity in the commercial fishery, lengthen the fishing season, lower operating costs by giving vessel owners more flexibility, improve market conditions, and increased safety at sea.

Red Grouper was a hot topic this year. In two separate actions, the Council adopted a management alternative for the Commercial grouper fishery that establishes an aggregate deep-water grouper and shallow-water grouper commercial trip limit of 6,000 pounds gutted weight.

On the recreational side, the Council chose preferred alternatives that decrease the red grouper bag limit from two to one, establish a closed season for red, gag, and black grouper from February 15, through March 15, and prohibit captain and crew of for-hire vessels from retaining grouper when under charter.

The amendment is intended to establish more permanent management measures for the recreational grouper fishery.

The Council took final action to send both regulatory amendments to the Secretary of Commerce for approval and implementation.

Finally, the Council moved to begin working on an amendment that will establish red grouper allocations between the commercial and recreational sectors.

Coastal Migratory Pelagics

The commercial hook-and-line trip limits for the king mackerel were increased to 75 fish for the Florida east coast sub zone and reduced to 500 lbs per day for the southern Florida sub zone.

Amendment 15 to the CMP FMP, which calls for a limited access system for commercial king mackerel vessels, was approved and implemented.

Also approved and submitted to the Secretary of Commerce was Amendment 17 to the CMP FMP, along with Reef Fish Amendment 25. If implemented the joint amendment will extend the current Charter Vessel/Headboat CMP permit moratorium.

Essential Fish Habitat

The Council took final action on Generic amendment 3 to the Essential Fish Habitat (EFH) FMP. The amendment addresses EFH requirements, Habitat Areas of Particular Concern (HAPCs), and adverse effects of fishing in the fisheries for shrimp, red drum, reef fish, stone crab, coral and coral reefs of the Gulf of Mexico, as well as spiny lobster and the Coastal Migratory Pelagic resources of the Gulf of Mexico and South Atlantic. The intended effect of the amendment is to minimize any adverse effects of fishing on EFH.

Management measures include: prohibiting bottom anchoring to protect coral reefs in the East and West Flower Garden Banks, McGrail Bank, Pulley Ridge, and the North and South Tortugas Ecological Reserves, as well as Stetson Bank HAPCs; Prohibiting the use of trawling gear, bottom longlines, buoy gear, and all traps/pots to protect coral reefs in those same HAPCs; and requiring a weak link in the tickler chain of bottom trawls on all habitats through the Gulf of Mexico EEZ.

Coral

The Council convened a meeting of the Coral SSC and reviewed and approved its recommendations for an RFP for the Coral Reef Research Grant. The SSC was also asked to develop a plan for identification and monitoring of the deep-water coral reefs in the Gulf. Based on SSC recommendations, the Council approved a letter supporting Elkhorn and stag horn coral being listed as threatened under the ESA.

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 spiny lobster, a red snapper Review workshop, Data and Assessment workshops 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 Gulf Council voiced its objection to two proposed liquefied natural gas (LNG) facilities - one off Dauphin Island, Alabama, the other at the Pearl Crossing site off Louisiana. The Council also objected to operations of the Main Pass Depuration Facility in Louisiana.

Ecosystems

The Ecosystem/Sustainable Fisheries Committee met and took action to approve the stakeholders' survey document, convene the Ecosystem SSC, and to develop an RFP for selecting a facilitator to conduct stakeholder meetings.



The Ecosystem SSC convened and reviewed the Eco-GIS program; interim reports of the NMFS/Council Working Grouper Development of Guidelines for ecosystem plans; strategies for incorporating ecosystem consideration into fisheries management; the role of the Ecosystem SSC; identification of technical needs; the issues to be discussed in stakeholder workshops; and the creation of an Ecosystem Advisory Panel.

The Council hired a facilitator to host and summarize stakeholder workshops. Nine workshops were held to solicit public input on ecosystem management. The Special Ecosystem SSC also convened.

Other

In a letter to Senators Thad Cochran and Trent Lott, the Gulf Council outlined its recommendations to Congress for funding to aid in the rebuilding of the Gulf of Mexico Fisheries after sustaining damage from hurricanes Katrina and Rita.

Many of the Council's requests complemented efforts already underway to address overcapitalization and overfishing in several of the Gulf fisheries, while at the same time aiding in the recovery of the social and economic impacts.

Recommendations included compassionate relief response; restoring infrastructure; addressing overcapacity and overfishing through voluntary buyouts and gear improvements; employing fishermen in clean-up and research efforts; providing employment training for fishermen leaving the fishery; and improving management tools.

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 (Pt. Clear, Alabama, March 14-17) and fall (Orlando, Florida, October 17-20) semi-annual meetings. Participation included meetings of the Habitat Subcommittee, 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 Dr. Mamie Parker, Assistant Director for Fisheries and Habitat Conservation for the agency, who participated in the fall meeting as the luncheon speaker for the Charles H. Lyles award ceremony, and Norm Heil of the Fish Health Center at Warm Springs, Georgia who presented information to the TCC at the spring meeting regarding the FWS Wild Fish Health Survey. Doug Frugé chaired the Habitat Subcommittee meeting on October 17 as vice-chair and was elected Subcommittee Chairman at that meeting. Besides participation in GSMFC meetings, numerous FWS activities conducted by a number of regional and field offices throughout 2005 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 and Public Outreach and Education.

ANADROMOUS FISHERIES

Striped Bass Fishery Management Plan Revision

During 2005 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 Fisheries Coordination Office (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.

Work continued throughout the year in final editing and revising drafts of the FMP revision. A few additions and editorial changes were provided by the Gulf Coast FCO to the GSMFC for incorporation into the draft document during March. Doug Frugé made a presentation on the draft FMP revision to the GSMFC's S-FFMC on March 16 in anticipation of the TTF providing the draft to the S-FFMC for their review. On April 20 the Gulf Coast FCO provided the GSMFC with a draft transmittal memorandum and a list of FWS personnel to be sent the draft FMP for their review concurrently with the S-FFMC.

A list of references in the Gulf Coast FCO library related to striped bass was compiled during July, and the references were made available to the GSMFC for scanning for electronic storage in the GSMFC reference library.

Data on collection records of striped bass in Gulf rivers prior to initiation of stocking activities in the 1960s were double-checked on August 4 and 11 by the Gulf Coast FCO. The office sent a request on August 11 to several ichthyologists in the Southeast regarding their views on the likely historic distribution of striped bass above the fall line prior to initiation of stock enhancement. This information was requested in order to address comments that had been received by the GSMFC on a review draft of the FMP revision.

On December 22 the Gulf Coast FCO sent an e-mail and letter to a number of interested individuals regarding availability for public review of the final draft of the FMP revision.

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 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 Regional Fisheries Center (RFC), Fisheries Technical Center (FTC) and National Fish Hatchery (NFH), Georgia; Welaka NFH, Florida) attended the annual *Morone* workshop sponsored by the TC in Warm Springs, Georgia on February 8-9.

Striped Bass Fry/Fingerling Production and Stocking

Through the cooperative efforts of a number of FWS field stations (Welaka NFH; Inks Dam NFH, Texas; 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 1,980,800 Phase I and 107,280 Phase II Gulf race striped bass fingerlings were stocked within the species' historic range in Gulf coastal rivers during the 2005 stocking year (includes early 2006) as part of the multi-agency anadromous striped bass restoration program in the Gulf. Of these fingerlings, FWS NFHs grew and stocked approximately 569,500 (29%) 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 Staff Specialist, Tom Sinclair) continued coordinating and managing a contract with the New York University School of Medicine for striped bass broodfish genetics screening during the 2005 spawning season. This was the third option year for continuation of a multi-year contract for this purpose. 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 system. 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 involves 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, evaluate short-term fingerling survival by fall electrofishing at fixed stations throughout the river and lake during 2002-2006, screen broodfish for CWT and OTC during 2004-2007, and complete a final report and recommendations by 2008. During the 2005 stocking year approximately 144,900 Phase I and 32,270 Phase II fingerlings were stocked into Lake Seminole and approximately 59,420 Phase II fingerlings were stocked into the Apalachicola River. Of these, 87,000 of the Phase II fish were marked with CWTs. All broodfish collected in 2005 were screened for CWTs, and otoliths from year classes 2001 and later were analyzed for OTC marks. The project will be completed with the 2007 broodfish

season, and stocking recommendations will be completed in 2008.

Other Striped Bass Restoration Activities

In 2005 the Panama City FRO and Florida Fish and Wildlife Conservation Commission (FFWCC) observed high numbers of adult grass carp utilizing thermal refuges in the Apalachicola River that are important as summer habitat for adult striped bass. High catch rates of grass carp raised questions regarding the possibility of reproduction by the species. Although analyses for triploidy (i.e., sterility) by the FWS Warm Springs FTC revealed that all samples conclusively assessed were triploid, efforts to monitor grass carp sterility will continue. Due to concerns of potential competition by grass carp with striped bass for space in the refuges, a potential grass carp control effort was considered but not implemented in 2005 due to concerns over potential direct negative impacts of the control program on the striped bass population.

Gulf Sturgeon Recovery Activities

The Baton Rouge FRO continued providing assistance to the Louisiana Department of Wildlife and Fisheries (LDWF) during 2005 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 April 21, May 4-5, July 20, October 13 and November 3.

In March the Baton Rouge FRO consulted with the Mississippi Museum of Natural Science and LDWF staff concerning search efforts for Gulf sturgeon spawning areas in the Pearl River and deployed 22 stationary egg collection mats at Walkiah Bluff, at the confluence of the East and West Pearl rivers. On April 1, 14, and 21 and May 2, 4, 5 Baton Rouge FRO staff and assisted LDWF personnel in inspecting the mats for eggs. High water and sedimentation of the mats hampered monitoring efforts, and on May 5 accessible mats were removed.

The Panama City FRO sampled Gulf sturgeon populations in the Escambia, Blackwater, Yellow, Choctawhatchee, Apalachicola, Brothers and Ochlockonee rivers and Escambia Bay using stationary and drift gill nets during 2005 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 assisted the NOAA Fisheries Service with initiation of a study in 2005 to identify potential impacts from Hurricane Ivan on coastal Gulf sturgeon foraging habitats. The study incorporated 48 Gulf sturgeon fitted with acoustic coded transmitters and 57 stationary acoustic receivers deployed in Pensacola/Escambia and Choctawhatchee bays, with some manual tracking as well. The fish will be tracked through 2007.

The Panama City FRO continued on a smaller scale a sonic telemetry study of Gulf sturgeon habitat use of coastal waters that was begun in 2004. A total of 28 fish from four Florida rivers were sonic-tagged and tracked during the study period. Fish were located in basically the same areas as in 2004.

A survey of the Yellow River, Florida to identify Gulf sturgeon spawning habitats that was initiated by the Panama City FRO during 2004 was continued in April-May 2005 with stationary egg sampling pads being deployed in five areas. Three Gulf sturgeon eggs were collected at the upper sampling site in Alabama providing the first tangible evidence of Gulf sturgeon spawning in the Yellow River.

The Panama City FRO initiated a study in partnership with the US Army, Corps (CE) of Engineers to identify Gulf sturgeon spawning habitats in the Apalachicola River in 2005. This study, involved radio-tagging 15 adult Gulf sturgeon and tracking their movements during the spawning season in conjunction with deployment of anchored egg sampling pads. Twenty Gulf sturgeon eggs and one larva were collected providing the first documentation of Gulf sturgeon spawning in the Apalachicola River through the collection of eggs.

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 efforts involved participating in a Gulf Sturgeon Task Force formed by the Mississippi Department of Marine Resources to address Gulf sturgeon research needs in Mississippi Sound.

The Panama City FRO continued a study initiated in 2004 in partnership with the GCRL to sample benthic macroinvertebrates from six habitat sites along the northern Florida coast where Gulf sturgeon are believed to forage, based on the presence of sonic-tagged fish. The GCRL analyzed the samples, and comparisons were made with respect to population composition between sites from different depths.

Personnel from the Panama City FRO and Welaka NFH met with fisheries scientists from the Republic of Georgia at Welaka NFH to discuss sturgeon research activities in Florida. The visit by the Georgians was arranged by the Florida Department of Agriculture. Discussions focused on the Gulf sturgeon propagation program and Gulf sturgeon restoration and recovery activities.

Personnel from a number of FWS offices attended the annual Gulf sturgeon informational and coordination workshop, held during 2005 at Panama City, Florida on November 1-2.

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



**Sabine National Wildlife Refuge post Rita
(photo by Kelly Turk)**

the native ranges of Gulf anadromous fish species during 2005. 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 point and non-point pollution discharge, turbidity and poor water quality, channel instability and streambank erosion, stormwater runoff, loss of riparian buffers, runoff from poorly-managed agricultural and silvicultural lands, unpaved roads, streambed sedimentation, and blockages to fish movement. Most of these projects were funded through the FWS Partners for Fish and Wildlife and Coastal programs.

Other 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 Spring Creek and Canoe Creek watersheds in Florida; participation on the Florida Unpaved Road Interagency Team; contribution to completing 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; supporting a study of the importance of large woody debris in the ecology of southeastern coastal plain streams; and pre- and post-restoration studies of aquatic habitats in Big Escambia Creek and Magnolia Creek, Florida. 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 Chipola River Watershed Partnership in Florida. In addition, the Panama City FRO provided technical assistance for aquatic habitat restoration efforts to the Blackwater River State Forest, US Natural Resource Conservation Service, Northwest Florida Water Management District, The Nature Conservancy (TNC), and Eglin Air Force Base (AFB).

The Panama City FRO continued efforts in 2005 to work with the 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.

The Panama City FRO also led the signing in 2005 of a *Memorandum of Agreement for Aquatic Stewardship in the Gulf Coastal Plain Ecosystem in Northwest Florida*. In this agreement, the partners, including the FWS, the FFWCC, TNC and Eglin AFB agree to develop and implement cooperative strategies for the four major river basins of western Florida.

OTHER COASTAL FISHERIES

The Gulf Coast FCO participated in a NOAA Fisheries Ecosystem Approach Stakeholder meeting in Ft. Myers Beach, Florida on August 8. The Gulf Coast FCO also participated in the initial meeting of the NOAA Fisheries Gulf Implementation Team for the agency's Recreational Fisheries Strategic Plan on August 24-25 in St. Petersburg, Florida. In preparation for the meeting the Gulf Coast FCO had also coordinated with other FWS offices regarding existing or planned projects that might directly benefit Gulf of Mexico coastal recreational fisheries.

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 2005.

Fisheries Information Network

Doug Frugé was the FWS representative on the GSMFC's Fisheries Information Network (FIN) Committee and the FIN Administrative Subcommittee during 2005. John Forester, of the Baton Rouge FRO, represented the FWS at the FIN annual meeting at Baton Rouge, Louisiana during June 7-8.

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 GMFMC and several of its committees at Baton Rouge, Louisiana on January 12-13; Birmingham, Alabama on March 8; Biloxi, Mississippi on May 9-12; Ft. Myers Beach, Florida on August 8-12 and Ft Walton Beach, Florida on November 16-17, 2005. There was no FWS representative at the October 3-6 meeting held at St. Petersburg, Florida due to other pre-emptive activities.

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. Doug Frugé, of the Gulf Coast FCO began serving as the interim SARP Coordinator during March 2004 and continued serving in that capacity through August 2005. Doug Frugé made a presentation on SARP at, and participated on behalf of the SARP in, a workshop on Regional Ocean Governance that was held in conjunction with the Coastal Zone 2005 conference in New Orleans, Louisiana on July 20.

During 2005 the FWS successfully obtained a grant from the National Fish and Wildlife Foundation to help support the employment of a full-time coordinator for the SARP. Scott Robinson, employed by the Georgia Department of Natural Resources, began working as the new SARP Coordinator in September. Several FWS personnel attended SARP Steering Committee meetings in Nashville, Tennessee on April 5-7 and November 15-17.

HABITAT PROTECTION/ENHANCEMENT

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 CE 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. During August, per request of the FWS Southeast Regional NWR Biologist, the Gulf Coast FCO and Panama City FRO contributed toward developing a regional priority list of aquatic species of concern, including coastal species, for the FWS Southeast Region NWRs.

The Laguna Atascosa NWR continued efforts to restore the Bahia Grande wetland system in south Texas during 2005. This is one of the largest coastal wetland restoration projects in the United States. The project will ultimately restore 10,000 acres of tidal wetlands on the refuge, enhancing habitat for wildlife and fishery resources, providing opportunities for public recreation and environmental education, improving public health and safety conditions in communities affected by blowing dust, and contributing to the local economy. Since 1999, the FWS has actively worked with the Brownsville Navigation District (BND) and more than 40 other partners and sponsors at the federal, state, local, university, and private levels to restore the 10,000-acre Bahia Grande wetland system. Twenty of the partners are either private individuals or organizations. On July 16, 2005, the BND opened a 2,300-foot long by 15-foot wide “pilot channel” across their property to connect the Bahia Grande to the Brownsville Ship Channel. The channel reflooded approximately 6,500 acres of the Bahia Grande. In mid-September 2005, the Service, working with a local contractor, began construction of two additional channels on refuge property. These two channels will connect the Bahia Grande basin to the 1,700-acre Laguna Larga basin and the 1,300-acre Little Laguna Madre. The FWS is also working with the BND and others to secure funding for a “main channel”, which will be 10 times wider and three times deeper than the “pilot channel”. The main channel is expected to restore fully the historic hydrology of the Bahia Grande wetland system.

The Gulf Coast FCO attended meetings in Biloxi, Mississippi on February 23 and May 20 of the Marine Subcommittee of the Advisory Committee for developing the Mississippi Comprehensive Wildlife Conservation Strategy (MCWCS). Comments were provided on March

23 to the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) regarding coastal habitats for the MCWCS.

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 Program, 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.

During 2004 the Panama City FRO provided technical assistance to Walton County, Florida in designing and preparing a monitoring plan for a proposed project to restore tidal flow to 10 acres of isolated wetlands and 26-acre Oyster Lake, a coastal dune lake, that has been isolated from the Gulf of Mexico since 1975. The County proposes to replace culverts with a series of bridges restoring access to the lake by species such as red drum, striped mullet, flounders and spotted seatrout. The FRO collected pre-project fish population data in 2005 to compare with similar data to be collected following project completion.

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, as well as participating 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 GMFMC’s Habitat Staff Specialist on several occasions during the year on draft letters of comment regarding several proposed liquefied natural gas (LNG) processing facilities with potential to affect essential fish habitat (EFH) in the Gulf of Mexico. These included: on March 15 regarding the draft environmental impact statement (EIS) for the Compass Port LNG facility proposed to be located offshore of Alabama; May 10

regarding the draft EIS for the Pearl Crossing LNG facility proposed for location offshore of Louisiana; on June 23 regarding scoping for preparation of an EIS by the U.S. Coast Guard on the proposed Beacon Port LNG facility to be located offshore of southwest Louisiana; and on July 12 regarding the draft EIS for the proposed Main Pass LNG facility to be located off the Louisiana coast

Comments were provided by the Gulf Coast FCO on March 22 to the GSMFC on a draft letter to the Maritime Administration regarding the need for a cumulative impact analysis on currently proposed, approved and likely additional applications for siting and operation of offshore LNG facilities.

Following passage of Hurricanes Katrina and Rita in August and September concerns surfaced regarding potential effects on aquatic habitats. The Lafayette ESFO and Baton Rouge FRO both participated in meetings on September 19-20 and 22 in Baton Rouge, Louisiana regarding intergovernmental efforts to monitor environmental effects of hurricanes. This included coordination of post-hurricane monitoring efforts and estimates of natural resource damages. In late September the Baton Rouge FRO assisted the LDWF with collecting water quality data in Lake Pontchartrain and the Pearl and Tchefoncter rivers as part of interagency efforts to monitor post-hurricane effects. The Baton Rouge FRO also assisted the LDWF with fish population and water quality data collection on September 19-20 in the Pearl River and Big Mar, south of New Orleans near Caernarvon, Louisiana and on October 20 in Lake Pontchartrain and Bayous Bonfouca, Liberty, and Lacombe in southeastern Louisiana.

On November 29 the Gulf Coast FCO provided comments to the GSMFC on a draft script for a proposed educational video on Gulf of Mexico habitats to be produced by the GSMFC Habitat Subcommittee.

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 2005. However, the focus groups of the GMP, on which several other FWS personnel serve, were minimally active during 2005 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 minor involvement with the GMA through conference calls, reviews of early drafts of the GMA Action Plan and providing a briefing on the GMA to the GMFMC at the Council's meeting in Ft. Myers, Florida on August 12.

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 2005 consisted 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 reviewed drafts of the Gulf Hypoxia Reassessment Plan under consideration by the Task Force and a white paper that was developed by the EPA on the role of phosphorus in Gulf hypoxia. The office also participated in discussions with other US Department of the Interior personnel regarding USDI activities relative to the Task Force and a conference call of the CC on May 26. Doug Frugé and Glenn Constant of the Baton Rouge FRO attended a meeting of the Task Force in Memphis, Tennessee on November 30 - December 1.

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 25, March 31, September 25 and November 14 in Baton Rouge, Louisiana.

Fish Passage

The FWS initiated a project through the FWS Fish Passage Program during 2002 for a project to evaluate alternative lock operational scenarios at Miller's Ferry Lock and Dam on the Alabama River in order to facilitate fish passage, potentially benefiting anadromous fish species. The project was coordinated by the Alabama ESFO through a contract with the Geological Survey of Alabama and continued through 2004 with a final report on the project being completed on March 12.

Sabine National Wildlife Refuge post Rita (photo by Tom MacKenzie)



In 2005 the Panama City FRO initiated a project in cooperation with the South Carolina Cooperative Fish and Wildlife Research Unit, the CE, the Georgia Department of Natural Resources (GDNR), the FFWCC and TNC to evaluate behavior of anadromous fish species at the Jim Woodruff Lock and Dam on the ACF in order to develop recommendations for using lock operations to facilitate fish passage upstream. In the study 50 Alabama shad, 25 striped bass and 20 Gulf sturgeon were implanted with sonic tags. Fixed telemetry receivers were used to monitor fish behavior near and in the lock. Also, 25 striped bass and 45 Alabama shad placed in the lock were given the opportunity to move upstream during lock operation trials.

At least 6 of the striped bass and 16 of the shad moved upstream through the lock.

Sea Turtle Recovery

The FWS continued providing support for field operations on the eastern Mexico coast to protect the Kemp's Ridley sea turtle nesting habitat located there. There were 10,099 Kemp's Ridley sea turtle nests recorded on the Mexican beaches during 2005, continuing the steady increase in the nest counts that began in the early 1990s.

The Laguna Atascosa NWR co-led a number of partners in continuing the South Texas Sea Turtle Project during 2005. In this program beach patrols are utilized to locate and protect nesting Kemp's Ridley and other sea turtles, nests, and hatchlings on South Padre Island (SPI) and Boca Chica (BC) beaches of south Texas. Secondary objectives include environmental education and public outreach to increase awareness of sea turtle conservation through public hatchling releases, literature, and special programs. In addition, live and dead stranded sea turtles located through this program are documented, retrieved, and transferred to the appropriate organization to assist with National Sea Turtle Stranding and Salvage Network efforts. During the 2005 season the beaches along the entire 7 miles of BC and the northern 31 miles of SPI were patrolled. Ten sea turtle nests were found and protected in 2005, including nine Kemp's Ridley nests and one loggerhead nest, and a total of 860 hatchlings were successfully hatched and released, including 767 Kemp's Ridley and 93 loggerhead hatchlings.

The FWS also continued leading a turtle nest patrol program on Matagorda Island on the Texas coast in 2005. In that program three Kemp's Ridley nests were found and protected, with 177 hatchlings released.

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 of lighting causing less disorientation of hatchling sea turtles than conventional types of lights. In 2005 a total of 11 miles of beach were converted from conventional lighting to sea turtle friendly lights under the program.

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 and Boating Infrastructure Grant programs. Funding allocations and brief descriptions of the types of projects funded during federal Fiscal Year (FY) 2005 (October 1, 2004 - September 30, 2005) are described below.

Sport Fish Restoration Grants

In Alabama a total of \$973,020 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, including significant renovations to the Marine Resource Division's headquarters on Dauphin Island.

A total of \$4,669,441 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 east coast. Projects included: 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; developing health profiles of marine sport fish species cultivated for stock enhancement; monitoring distribution of marine sport fish with lesions caused by fungus; responding to recreational angler concerns regarding fish kills or disease events; 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; and surveying and inventorying all boat ramps, marinas, dry storage and mooring areas statewide.

The Louisiana Department of Wildlife and Fisheries received \$2,020,394 for marine sport fish restoration. Projects funded included: Sport Fish Restoration Program coordination and administration; enhancing the public's awareness of marine aquatic resources as related to sport fishing; stock assessment of various marine finfish species; identifying essential fish habitat in Barataria

Bay; evaluating recreational fish species use of created wetlands in the Atchafalaya River delta; improving and expanding the Texas Gulf Road Boat Launch and parking lot; 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 \$657,009 was provided to the Mississippi Department of Marine Resources in FY2005 for marine sport fish restoration efforts. Specific projects included: administering and coordinating the marine Sport Fish Restoration program; renovating the Pearlington Pier/Boat Launch and the Pass Christian Harbor and renovating the Pass Christian sea wall; 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; evaluating and monitoring populations of spotted seatrout, sheepshead, sand trout and shark species in coastal waters; and managing a recreational tag and release program in coastal Mississippi to encourage fishers to take measurements and keep accurate records on seatrout, cobia and tripletail they catch and tag.

The Texas Parks and Wildlife Department was apportioned \$5,269,198.14 for marine sport fish restoration programs. Specific projects carried out included: monitoring trends in landings, relative abundance and sizes of recreationally important fishes in coastal waters; developing 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; assessing genetic structure of spotted seatrout and Gulf menhaden populations in Texas waters; 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; construction of a new boat ramp on the Corpus Christi Packery Channel; increasing the capacity and safety of launching recreational vessels at the Corpus Christi Municipal Marina; describing age, growth, reproduction and population characteristics of sand seatrout in Texas coastal waters; and constructing a new boat ramp in Aransas County on St. Charles Bay.

Coastal Wetlands Grants

The State of Texas received \$1, 303,875 under the Coastal

Wetlands Grant Program in FY2005 for protection and restoration of West Bay Bird Island and to acquire approximately 1,500 acres of estuarine open water, estuarine emergent marsh, prairie depressional wetlands and upland prairie and restore approximately 42 acres of emergent marsh in Basford Lake, located in nearby Pierce Marsh Preserve within the West Bay Conservation Corridor in the Galveston Bay system.

Clean Vessel Act Grants

Three Gulf States received funding under the Clean Vessel Act (CVA) in FY2005 for coastal projects. This included \$82,987 awarded to the State of Alabama to construct pumpout facilities at Bon Secour, Wolf Bay and Luscher Park landings in coastal Alabama. The funding was also used to conduct outreach activities designed to inform the public regarding pumpout locations and the benefits of their use. The State of Florida received \$1,550,694 to construct 58 additional coastal pumpout facilities by 2008 and conduct outreach activities designed to increase boater awareness of the program from the current level of 50% to 65%. The State of Texas received \$150,000 to construct six sanitary pump-out facilities for recreational boating at coastal marina facilities, continue a boater education program regarding waste disposal and implement a boater input process to develop strategies to guide future CVA efforts in Texas.

Boating Infrastructure Grant Program

Two Gulf States received funding in FY2005 under the Boating Infrastructure Grant Program. The State of Mississippi received \$100,000 to improve and increase facilities for large transient vessels at Grand Harbor Marina, Bay Marina, and Midway Marina. The State of Texas received \$100,000 to construct eight boat slips for transient boats at the new Harborwalk Marina in Hitchcock, Texas on Galveston Bay.

North American Coastal Grant Program

Two Gulf states received funding in FY2005 under the North American Coastal Grant Program. The State of Louisiana received \$487,423 for the Maurepas/Pontchartrain Habitat Conservation Effort I. The State of Texas received \$1,000,000 for wetlands acquisition and restoration in the West Bay Conservation Corridor in the Galveston Bay system.

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 Panama City FRO participated in a seagrass awareness event in Pensacola, Florida and provided technical expertise to interested persons regarding seagrasses and other ecologically sensitive species found in coastal waters of the Gulf of Mexico.

Information on anadromous fish and aquatic habitat restoration and recovery of Gulf sturgeon was presented to numerous civic and school groups through presentations and at information booths at outreach events and festivals by the Panama City FRO. 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.

The Panama City FRO assisted the FFWCC with a "Kids Fishing Clinic" at the Panama City Beach Pier in 2005.



Financial Statements

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

December 31, 2005

PILTZ,
WILLIAMS,
LAROSA
&
COMPANY

CERTIFIED PUBLIC ACCOUNTANTS
A Professional Association

Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

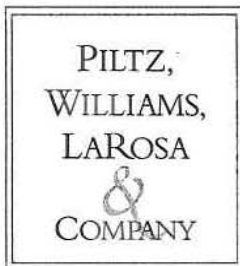
Financial Statements

December 31, 2005

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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, 2005, 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, 2005, 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 April 26, 2006 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.

Piltz, Williams, Johnson & Co.

Certified Public Accountants

Biloxi, Mississippi
April 26, 2006

Section I

Management's Discussion and Analysis

Gulf States Marine Fisheries Commission
Financial Statements
December 31, 2005

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, 2005. Please read it in conjunction with the Commission's basic financial statements, which are found in Section I. Also, as more fully discussed in Note A in the Notes to Financial Statements, the Commission has adopted GASB 33 and 34.

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 \$389,395 as of December 31, 2005.

By far the largest portion of the Commission's net assets (77%) 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, 2005

The following table presents a summary of the Commission's net assets for the year ended December 31, 2005.

Current assets	\$ 76,379
Noncurrent assets	437,534
Total assets	<u>513,913</u>
Current liabilities	46,651
Noncurrent liabilities	77,867
Total liabilities	<u>124,518</u>
Net assets	
Investment in capital assets, net of related debt	290,942
Unrestricted	98,453
Total net assets	<u>\$ 389,395</u>

Changes in net assets – The Commission's total revenues for the year ended December 31, 2005 were \$5,179,253. The total cost of all programs and services was \$5,196,040. The following table represents a summary of the changes in net assets for the year ended December 31, 2005.

Revenues	
Program revenues	\$ 5,146,410
General revenues	32,843
Total revenues	<u>5,179,253</u>
Expenses	
Programs	4,888,364
General and administrative	307,676
Total expenses	<u>5,196,040</u>
(Decrease) in net assets	<u>\$ (16,787)</u>

Budgetary Highlights

The Commission establishes its budget to reflect to 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, 2005

Capital Asset Administration

At the end of the current year the Commission had \$396,348, 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 \$1,447. During the current year the Commission expended \$144,259 for capital additions. Of this amount, all monies were expended for computers and office equipment.

Section II
Financial Statements

Gulf States Marine Fisheries Commission
Statement of Activities-Modified Cash Basis
For the Year Ended December 31, 2005

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	<u>Expenses</u>	<u>Charges for Services</u>	<u>Operating Grants and Contributions</u>	<u>Net (Expense) Revenue and Change in Net Assets Governmental Activities</u>
Functions/Programs				
Primary government:				
Programs				
Collection & dissemination of commercial and recreational fisheries information	\$ 3,602,322	\$ -	\$ 3,634,900	\$ 32,578
Interjurisdictional fisheries management	217,630	-	236,235	18,605
Coordination of recreational fisheries programs	198,610	-	204,837	6,227
Derelict crab	50,616	-	59,801	9,185
Collection & dissemination of fishery - independent data and information	93,310	-	90,556	(2,754)
Review and formation of habitat information	47,574	-	44,859	(2,715)
Study of aquatic nuisances	51,009	-	41,992	(9,017)
Fish and wildlife support services	53,874	-	70,151	16,277
Billfish research	517,219	-	512,450	(4,769)
Other	56,200	-	87,829	31,629
Total	<u>4,888,364</u>	<u>-</u>	<u>4,983,610</u>	<u>95,246</u>
General and Administrative				
Local administration	277,383	20,300	112,500	(144,583)
Council activities	30,293	-	30,000	(293)
Total	<u>307,676</u>	<u>20,300</u>	<u>142,500</u>	<u>(144,876)</u>
Total primary government	<u>\$ 5,196,040</u>	<u>\$ 20,300</u>	<u>\$ 5,126,110</u>	<u>(49,630)</u>
General revenues				
Other income				17,852
Post employment health plan revenue				3,790
Interest income				8,780
Unrealized gain (loss) on investments				2,421
Total general revenues				<u>32,843</u>
Change in net assets				(16,787)
Net assets, beginning				<u>406,182</u>
Net assets, ending				<u>\$ 389,395</u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Assets, Liabilities and Fund Balances-Cash Basis
Governmental Funds
December 31, 2005

	General Fund	Special Revenue Funds		Total Governmental Funds
		RECFIN/ COMFIN Fund	Other Funds	
Assets				
Current assets				
Cash in bank	\$ 75,504	\$ -	\$ 270	\$ 75,774
Employee receivable	605	-	-	605
Noncurrent assets				
PEHP investment account	41,186	-	-	41,186
Total assets	<u>\$ 117,295</u>	<u>\$ -</u>	<u>\$ 270</u>	<u>\$ 117,565</u>
Liabilities				
Current liabilities				
Payroll taxes payable	\$ 18,219	\$ -	\$ -	\$ 18,219
Section 125 cafeteria plan	893	-	-	893
Total liabilities	<u>19,112</u>	<u>-</u>	<u>-</u>	<u>19,112</u>
Fund Balances				
Fund balance - reserved for investments	41,186	-	-	41,186
Fund balance - unreserved	56,997	-	270	57,267
Total fund balances	<u>98,183</u>	<u>-</u>	<u>270</u>	<u>98,453</u>
Total liabilities and fund balances	<u>\$ 117,295</u>	<u>\$ -</u>	<u>\$ 270</u>	<u>\$ 117,565</u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Reconciliation of the Governmental Funds Statement of Assets,
Liabilities and Fund Balances - Cash Basis
to the Statement of Net Assets-Modified Cash Basis
December 31, 2005

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Total fund balances - governmental funds	\$	98,453
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		396,348
Notes payable are not due and payable in the current period expenditures and therefore are not reported in the funds		<u>(105,406)</u>
Total net assets - governmental activities	\$	<u><u>389,395</u></u>

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Revenues, Expenditures and Changes in Fund Balances-Cash Basis
Governmental Funds
For the Year Ended December 31, 2005

	Special Revenue Funds			Total Governmental Funds
	General Fund	RECFIN/ COMFIN Fund	Other Funds	
Revenues:				
Member state appropriation	\$ 112,500	\$ -	\$ -	\$ 112,500
Other income	17,852	-	-	17,852
Interest income	8,780	-	-	8,780
Rent income	6,100	-	-	6,100
Lease income	1,985	-	-	1,985
Post employment health plan revenue	3,790	-	-	3,790
Grant income	-	3,634,900	1,378,709	5,013,609
Registration fees	12,215	-	-	12,215
Unrealized gain on investments	2,421	-	-	2,421
Totals	165,643	3,634,900	1,378,709	5,179,252
Expenditures				
Personal services and benefits	77,526	484,826	497,747	1,060,099
Professional services	917	2,951,784	536,989	3,489,690
Other purchased services	44,449	132,794	246,548	423,791
Supplies and materials	3,908	32,917	35,054	71,879
Capital outlay	1,670	81,437	61,577	144,684
Debt service:				
Principal	26,642	-	-	26,642
Interest	7,344	-	-	7,344
Totals	162,456	3,683,758	1,377,915	5,224,129
Excess (deficiency) of revenues over (under) expenditures	3,187	(48,858)	794	(44,877)
Other financing sources (uses)				
Proceeds from issuance of debt	-	-	-	-
Interfund loans	(81,017)	48,858	32,159	-
Operating transfers in	41,615	-	-	41,615
Operating transfers out	-	-	(41,615)	(41,615)
Total other financing sources (uses)	(39,402)	48,858	(9,456)	-
Net change in fund balances	(36,215)	-	(8,662)	(44,877)
Fund balance - beginning	134,398	-	8,932	143,330
Fund balance - ending	<u>\$ 98,183</u>	<u>\$ -</u>	<u>\$ 270</u>	<u>\$ 98,453</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, 2005

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Net changes in governmental fund balances \$ (44,877)

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 \$144,259 and the depreciation expense amounted to \$139,683. 4,576

Payment of principal on long-term liabilities is reported as an expenditure in the governmental funds, but the payment reduces long-term liabilities in the statement of net assets - modified cash basis. 26,642

Proceeds from the sale of assets are reported in the governmental funds as revenues, but only the gain or loss on the sale of assets is reported in the statement of activities - modified cash basis. (3,128)

Change in net assets of governmental activities \$ (16,787)

Gulf States Marine Fisheries Commission
Notes to Financial Statements
Year Ended December 31, 2005

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 – In prior years Gulf States Marine Fisheries Commission reported as a not-for-profit organization based upon a letter ruling from the Internal Revenue Service. Subsequent to the close of a previous fiscal year, the Internal Revenue Service was conducting an audit of a prior year's tax return (Form 990) and determined that the Commission was a governmental entity rather than a not-for-profit entity. As a result of that finding the Commission has determined that it should report as a governmental 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 account 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.

All other governmental funds not meeting the criteria established for major funds are presented as other governmental funds.

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

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.

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.

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

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.

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.

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

Note B – Concentration of Credit Risk

The Commission has maintained a bank account at one financial institution. The account balance at December 31, 2005 may be shown as follows:

<u>Description</u>	<u>Carrying Amount</u>	<u>Bank Balance</u>
Regular accounts	\$ 75,749	\$ 117,965

The bank balances at December 31, 2005 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>17,965</u>
Total bank balances	<u>\$ 117,965</u>

Note C – Investments

Investments:

Except for nonparticipating investment contracts and for participating interest-earning investment contracts and money market investments that had a remaining maturity at the time of purchase of one year or less, investments are reported at fair value which is based on quoted market price. Nonparticipating investment contracts such as repurchase agreements and nonnegotiable certificates of deposit are reported at cost. Participating interest-earning investment contracts and money market investments that had a remaining maturity at time of purchase of one year or less are reported at amortized cost.

Investments made by the Commission that are included on the statement of net assets are summarized below. The investments that are represented by specific identifiable investment securities are classified as to credit risk by the categories described below:

Category I – Insured or registered or for which the securities are held by the Commission or its agent in the Commission's name.

Category 2 – Uninsured and unregistered for which the securities are held by the broker or dealer's trust department or agent in the Commission's name.

Category 3 – Uninsured and unregistered for which the securities are held by the broker or dealer, or by its trust department or agent but not in the Commission's name.

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

<u>Investment Type</u>	<u>Category</u>			<u>Reported Amount</u>	<u>Fair Value</u>
	<u>1</u>	<u>2</u>	<u>3</u>		
Van Kampen Equity & Income Fund Cl. A, 4,069,789 shares		X		\$ 35,326	\$ 35,326
Federal Home Loan Mortgage Bond, due 8/15/22, 5.5%		X		4,813	4,813
Tax-Free Money Market Fund		X		<u>1,047</u>	<u>1,047</u>
Totals				<u>\$ 41,186</u>	<u>\$ 41,186</u>

Note D – Property, Plant and Equipment

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

	<u>Balance 12/31/04</u>	<u>Additions</u>	<u>Deletions</u>	<u>Balance 12/31/05</u>
Restricted				
Vehicles	\$ 45,958	\$	\$	\$ 45,958
Office equipment	<u>970,610</u>	<u>144,259</u>	<u>71,741</u>	<u>1,043,128</u>
Totals	<u>1,016,568</u>	<u>144,259</u>	<u>71,741</u>	<u>1,089,086</u>
Unrestricted				
Land	20,000			20,000
Building	182,817			182,817
Vehicles	51,105			51,105
Office equipment	<u>89,988</u>			<u>89,988</u>
Totals	<u>343,910</u>			<u>343,910</u>
Less accumulated depreciation				
Restricted	839,358	117,000	68,612	887,746
Unrestricted	<u>126,219</u>	<u>22,683</u>		<u>148,902</u>
Totals	<u>965,577</u>	<u>139,683</u>	<u>68,612</u>	<u>1,036,648</u>
Governmental activities				
Net property and equipment:				
Restricted	177,210	27,259	3,129	201,340
Unrestricted	<u>217,691</u>	<u>(22,683)</u>		<u>195,008</u>
Totals	<u>\$ 394,901</u>	<u>\$ 4,576</u>	<u>\$ 3,129</u>	<u>\$ 396,348</u>

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

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	\$ 74,358
Interest rate	6.0%
Payment terms	59 monthly payments of \$1,039, plus 1 of remaining balance
Collateral	Land and building at 204 Government St. Ocean Springs, MS

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	\$ 22,626
Interest rate	7.5%
Payment terms	60 monthly payments of \$614
Collateral	Xerox copier
Purchase option	Ownership at end of lease

During a prior year, the Commission acquired a copy machine under a lease/purchase agreement. The financing details are as follows:

Cost of copier	\$ 33,763
Amount outstanding	\$ 8,422
Interest rate	7.50%
Payment terms	60 monthly payments of \$676
Collateral	Xerox copier
Purchase option	Ownership at end of lease

	Beginning 01/01/05	Additions	Deletions	Ending 12/31/05	Amounts Due Within One Year
Governmental activities					
Notes	\$ 86,404	\$	\$ 12,046	\$ 74,358	\$ 13,917
Capital leases	45,645		14,596	31,049	13,622
Total governmental activities	<u>\$ 132,049</u>	<u>\$ -</u>	<u>\$ 26,642</u>	<u>\$ 105,407</u>	<u>\$ 27,539</u>

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

The annual requirements to pay principal and interest on the notes and capital leases outstanding at December 31, 2005 follow:

<u>December 31,</u>	Governmental Activities			
	Notes		Capital Leases	
	Principal	Interest	Principal	Interest
2006	\$ 13,917	\$ 4,083	\$ 13,622	\$ 1,867
2007	60,441	598	7,001	1,046
2008			6,820	551
2009			3,606	80
Totals	\$ 74,358	\$ 4,681	\$ 31,049	\$ 3,544

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, 2005 was \$54,670.

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, 2005 eight (8) employees would qualify for this benefit. Assuming that all eight (8) separated from service at that date, and utilizing their current sick leave hours and rates of pay then the computed value is \$43,837. During the current year the Commission invested \$4,045 to continue funding this benefit. This investment is shown on the Statement of Net Assets – Modified Cash Basis at its current market value of \$41,186. This would leave an unfunded amount of \$2,201 based upon the above assumptions.

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.

Section III
Supplemental Information

Gulf States Marine Fisheries Commission
Budgetary Comparison Schedule
For the Year Ended December 31, 2005

	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	13,067		13,067	17,852		17,852	4,785
Interest income	3,000		3,000	8,780		8,780	5,780
Rent income	10,500		10,500	6,100		6,100	(4,400)
Lease income			-	1,985		1,985	1,985
Post employment health plan revenue			-	3,790		3,790	3,790
Grant income		7,435,454	7,435,454		5,013,609	5,013,609	(2,421,845)
Registration fees	10,200		10,200	12,215		12,215	2,015
Transfers in			-	41,615		41,615	41,615
Unrealized gain (loss) on investments			-	2,421		2,421	2,421
Totals	<u>149,267</u>	<u>7,435,454</u>	<u>7,584,721</u>	<u>207,258</u>	<u>5,013,609</u>	<u>5,220,867</u>	<u>(2,363,854)</u>
Personal costs							
Salaries	70,202	721,507	791,709	61,521	726,520	788,041	(3,668)
Payroll taxes	5,639	57,932	63,571	2,255	58,126	60,381	(3,190)
Health insurance	7,965	140,199	148,164	8,780	144,437	153,217	5,053
Retirement expense	4,778	49,876	54,654	4,596	50,074	54,670	16
Post employment health plan expense	-	-	-	374	3,416	3,790	3,790
Totals	<u>88,584</u>	<u>969,514</u>	<u>1,058,098</u>	<u>77,526</u>	<u>982,573</u>	<u>1,060,099</u>	<u>2,001</u>
Maintenance/Operations							
Facilities	18,000	5,400	23,400	18,000	2,700	20,700	(2,700)
Office supplies	2,011	21,580	23,591	2,873	15,215	18,088	(5,503)
Postage	500	15,898	16,398	967	13,037	14,004	(2,394)
Travel - committee	-	226,226	226,226	1,079	158,294	159,373	(66,853)
Travel - staff	9,000	43,788	52,788	5,379	49,885	55,264	2,476
Telephone	1,700	22,281	23,981	1,858	24,176	26,034	2,053
Office equipment	1,130	26,922	28,052	1,670	143,015	144,685	116,633
Copying expense	1,200	26,800	28,000	296	27,033	27,329	(671)
Printing expense	500	1,900	2,400	147	1,777	1,924	(476)
Meeting costs	12,000	25,920	37,920	12,317	58,307	70,624	32,704
Subscriptions & dues	500	1,375	1,875	777	1,411	2,188	313
Automobile expenses	800	12,940	13,740	(375)	10,799	10,424	(3,316)
Insurance	5,500	13,277	18,777	1,740	17,170	18,910	133
Maintenance	1,800	109,446	111,246	8,059	45,177	53,236	(58,010)
Professional expenses	1,000	224,319	225,319	917	208,142	209,059	(16,260)
Other taxes	-	-	-	-	7	7	7
Contractual	-	5,671,083	5,671,083	-	3,280,631	3,280,631	(2,390,452)
Utilities	3,442	10,452	13,894	3,748	10,144	13,892	(2)
Janitorial	1,600	6,333	7,933	3,992	12,070	16,062	8,129
Courtesies	-	-	-	5,500	-	5,500	5,500
Principal and interest on notes	-	-	-	15,986	110	16,096	16,096
Transfers out	-	-	-	-	41,615	41,615	41,615
Totals	<u>149,267</u>	<u>7,435,454</u>	<u>7,584,721</u>	<u>162,456</u>	<u>5,103,288</u>	<u>5,265,744</u>	<u>(2,318,977)</u>
Excess of revenues over expense	\$ -	\$ -	\$ -	\$ 44,802	\$ (89,679)	\$ (44,877)	\$ (44,877)

Gulf States Marine Fisheries Commission
Budgetary Comparison Schedule
For the Year Ended December 31, 2005
(Continued)

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Budgetary Comparison Schedule

(1) Basis of Presentation

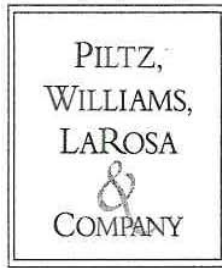
The Budgetary Comparison Schedule presents the original adopted budget, the actual data on the cash basis, and variances between the budget and the actual data.

Gulf States Marine Fisheries Commission
Schedule of Expenditures of Federal Awards – Cash Basis
For the Year Ended December 31, 2005

Federal Grantor / Program Title	Catalog of Federal Domestic Assistance	Federal Expenditures
U.S. Department of Interior		
Aquatic Nuisance	15.608	\$ 51,428
Sports Fish Restoration Program	15.605	234,015
Total U. S. Department of Interior		<u>285,443</u>
U.S. Department of Commerce		
Interjurisdictional Fisheries Management Plan	11.407	239,616
Distribution of Bottom Habitat Information in the Gulf of Mexico	11.433	6,806
Recreational Fisheries Information Network (RECFIN) and Commercial Fisheries Information Network (COMFIN)	11.434	3,683,758
Southeast Area Monitoring and Assessment Program (SEAMAP)	11.435	96,326
Billfish Research	11.454	517,485
Derelict Crab	11.463	50,616
Habitat Conservation	11.463	47,574
Total U. S. Department of Commerce		<u>4,642,181</u>
Total expenditures of federal awards		<u>\$ 4,927,624</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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Gerald Piltz, CPA (Retired)
Stanford A. Williams, Jr., CPA (Retired)

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, 2005, which collectively comprise Gulf States Marine Fisheries Commission's basic financial statements and have issued our report thereon dated April 26, 2006. 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

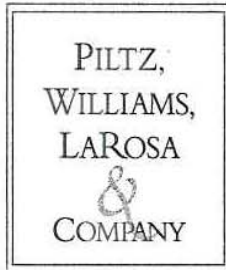
In planning and performing our audit, we considered Gulf States Marine Fisheries Commission's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide an opinion on the internal control 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
April 26, 2006



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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, 2005. 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.

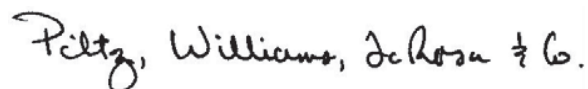
In our opinion, Gulf States Marine Fisheries Commission complied, in all material respects, with the requirements referred to above that are applicable to each of its major federal programs for the years ended December 31, 2005.

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.



Certified Public Accountants

Biloxi, Mississippi
April 26, 2006

Section V
Other Items

Gulf States Marine Fisheries Commission
Schedule of Findings and Questioned Costs
For the Year Ended December 31, 2005

Section 1 – Summary of Auditors’ Results

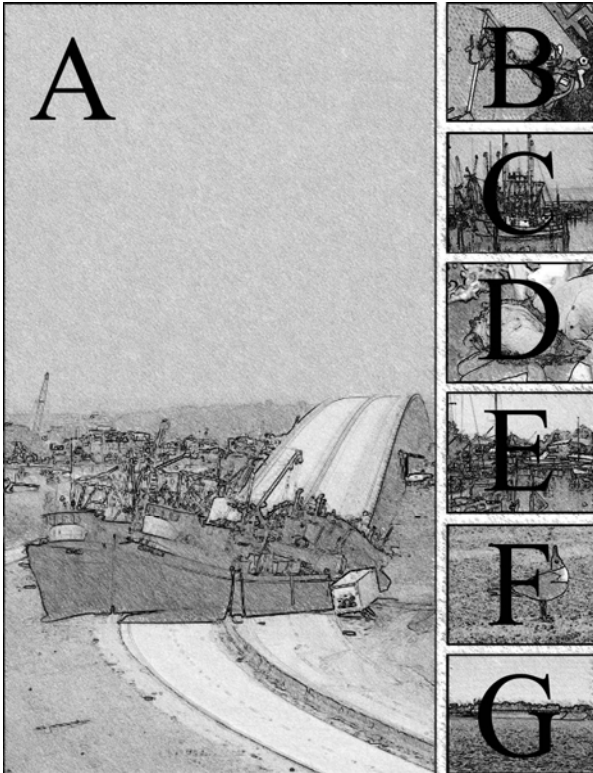
1. An unqualified opinion was issued on the basic financial statements.
2. There were no reportable conditions in internal control disclosed by the audit of the basic financial statements.
3. The audit did not disclose any noncompliance which is material to the basic financial statements.
4. The audit did not disclose any material weaknesses in internal control over major programs.
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 and Billfish Research – 11.454.
8. The dollar threshold used to distinguish between Type A and Type B Programs was \$300,000.
9. The auditee does qualify as a low-risk auditee.

Section 2 – Findings Related to the Financial Statements

None

Section 3 – Findings and Questioned Costs for Federal Awards

None



Cover Photo Credits

- A. Daybrook Fisheries, Inc.
- B. US Coast Guard
- C. Sandy Shanks
- D. Steve VanderKooy - GSMFC
- E. Jeff Rester -GSMFC
- F. Sandy Shanks
- F. Sandy Shanks



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