Sixty-First Annual Report of the Gulf States Marine Fisheries Commission

For the Year 2010

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

Sixty-First Annual Report
(2010)

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

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

Edited by:

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Preserving the Past ▪ Planning the Future ▪ A Cooperative Effort

Charles H. Lyles Award

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

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

CHARLES H. LYLES
Award Recipients

Charles H. Lyles	1984
Theodore B. Ford	1985
J.Y. Christmas	1986
John Breaux	1987
John Ray Nelson	1988
I.B. "Buck" Byrd	1989
Hugh A. Swingle	1990
John A. Mehos	1991
J. Burton Angelle	1992
Louis A. Villanova	1993
Theodore H. Shepard	1994
Edwin A. Joyce, Jr.	1995
Tommy D. Candies	1996
Walter M. Tatum	1997
Thomas L. Heffernan	1998
Trent Lott	1999
James Barkuloo	2000
Walter Fondren, III	2001
Jerald K. Waller	2002
Andrew J. Kemmerer	2003
Hal Osburn	2004
Leroy Kiffe	2005
Robert P. Jones	2006
Wayne E. Swingle	2007
Ralph Rayburn	2008
W. "Corky" Perret	2009
Albert L. King, Sr.	2010

Acknowledgements

In submitting this Sixty-First 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 sixty 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,

Mike Ray, *Chairman*
Chris Blankenship, *Vice Chairman*
Joe Gill, *Second Vice Chairman*
Larry B. Simpson, *Executive Director*

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Commission Roster

Commission Officers

Chairman: Butch Gautreaux

First Vice Chairman: Virginia Vail

Second Vice Chairmen: Vernon Minton/ Chris Blankenship

Commissioners

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

ALABAMA

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

Spencer Collier
Alabama House of Representatives
Irvington, Alabama

Chris Nelson
Bon Secour Fisheries
Bon Secour, Alabama

FLORIDA

Nick Wiley, Executive Director
Florida Fish & Wildlife Fisheries Commission
Tallahassee, Florida

Thad Altman
Florida Senate
Melbourne, Florida

Stephen Greep
Alexander & Greep Insurance
Fort Lauderdale, Florida

LOUISIANA

Robert Barham, Secretary
Louisiana Department of Wildlife & Fisheries
Baton Rouge, Louisiana

Butch Gautreaux
Louisiana Senate
Morgan City, Louisiana

Campo "Camp" Matens
Baton Rouge, Louisiana

MISSISSIPPI

William Walker, Executive Director
Mississippi Department of Marine Resources
Biloxi, Mississippi

Tommy Gollott
Mississippi Senate
Biloxi, Mississippi

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

TEXAS

Carter Smith, Executive Director
Texas Parks & Wildlife Department
Austin, Texas

Mike Jackson
Texas Senate
Austin, Texas

David McKinney
Austin, Texas

Staff

Larry B. Simpson, *Executive Director*
David M. Donaldson, *Assistant Director*

Virginia K. Herring, Administrative Officer
Nancy K. Marcellus, Administrative Assistant
Cheryl R. Noble, Staff Assistant
Debora K. McIntyre, Staff Assistant
Janet Williams, Staff Assistant
Alyce R. Catchot, Staff Assistant
Deanna L. Valentine, Data Entry Clerk
Alexander L. Miller, Program Coordinator
Wendy L. Garner, Chief Financial Officer
James R. Ballard, Program Coordinator
Steven J. VanderKooy, Program Coordinator
Jeffrey K. Rester, Program Coordinator
Ralph E. Hode, Program Coordinator
Gregory S. Bray, Programmer/Analyst
Robert W. Harris, Programmer/Analyst
Douglas J. Snyder, Survey Coordinator
Donna B. Bellais, Survey Coordinator
Joseph P. Ferrer, III, Systems Administrator
Lloyd W. Kirk, SEAMAP Database Programmer
Angela R. Rabideau, Staff Accountant

Active Committees

Executive Committee ..... Butch Gautreaux
Joe Gill, Jr.
Vernon Minton/Chris Blankenship
Virginia Vail
Mike Ray

Law Enforcement Committee ..... Walter Chataginer, Chairman

State-Federal Fisheries Management Committee ..... Virginia Vail, Chairman

Menhaden Advisory Committee ..... Borden Wallace, Chairman

Commercial/Recreational Fisheries Advisory Panel ..... Philip Horn, Commercial Chairman
Darren Angelo, Recreational Chairman

Technical Coordinating Committee ..... Joseph Shepard, Chairman

TCC Artificial Reef Committee ..... Dale Shively, Chairman

TCC Crab Subcommittee ..... Tom Wagner, Chairman

TCC Data Management Subcommittee ..... Kerwin Cuevas, Chairman

TCC Habitat Subcommittee ..... Ron Mezich, Chairman

TCC SEAMAP Subcommittee ..... Read Hendon, Chairman

TCC Outreach Subcommittee ..... James Ballard, Facilitator

GULF STATES MARINE FISHERIES COMMISSION
EXECUTIVE DIRECTOR'S REPORT

Larry B. Simpson, Executive Director

I cannot talk about the year 2010 without discussing the Deepwater Horizon Oil Disaster. After just beginning to come out of the deep hole caused by Hurricanes Katrina and Rita, along with some other significant storms, the marine resources were dealt another blow - that being the Deepwater Horizon offshore oil well explosion and subsequent oil disaster. On April 20, 2010, the Deepwater Horizon, an oil drilling rig, exploded. The drilling rig was located approximately 50 miles southeast of the Mississippi River in the Gulf of Mexico. In that tragedy, let us not forget the injured workers being plucked from the surrounding waters and the loss of 11 lives in the explosion and subsequent sinking of the rig. This caused oil to begin leaking from the well at the rate of 5,000 to 60,000 barrels a day, causing an unknown impact on fish, crustaceans, marine mammals, sea turtles, birds, and the entire Gulf of Mexico ecosystem.

Among the early recognized impacts of the disaster was the closure of commercial and recreational fishing grounds in both offshore waters and in nearshore/inshore waters for the protection of fishermen and consumers. The economic impacts to the fishing industry are still being quantified; but it is recognized, without a doubt, that the demand for Gulf products came to a standstill, resulting in the closure of numerous processors, distributors, and wholesaler businesses - not to mention the loss of tourism throughout the Gulf of Mexico region.

Once again, the Commission was asked to provide administration and implementation of a multimillion dollar Congressional disaster response program. The Oil Disaster Recovery Program (ODRP) will provide assistance to the Gulf fishing industry through programs designed to market Gulf seafood products and provide health and safety assurances for those products. The Stock Assessment Enhancement (SAE) Program will improve our vital fishery-independent data so as to better assess the status of the stocks. The Commission is well-equipped to provide these services for the Gulf and we look forward to implementing actions to help our fishermen and those who rely on their product. I will be reporting to you the actions, programs, and progress to be accomplished in the future and carried out with these responsibilities.

EMERGENCY DISASTER RECOVERY PROGRAM

Ralph E. Hode, Fisheries Disaster Program Coordinator

The Disaster Recovery Program was established by Congress to aid in the restoration of the Gulf of Mexico fishery resource proper and to provide economic assistance for fishermen and industries within the Gulf States that were severely damaged during Hurricanes Katrina and Rita in 2005. The Gulf States Marine Fisheries Commission, working with the National Marine Fisheries Services, continues to coordinate the distribution of Disaster recovery funds appropriated by the U S Congress in 2006 and 2007 in response to the storms, as well as, a post-Oil Disaster program approved in 2010. Recovery efforts within each state are regularly monitored and reimbursements for approved work continue to be distributed on a weekly basis. Additionally, progress reports for work performed are provided to the National Marine Fisheries Service quarterly, while expenditure reports are prepared on a monthly basis. An overview of significant activities and related spending for each program follows.

Resource Recovery Progress and Spending – EDRP I

Overall spending in the Resource Recovery Program (EDRP I) in 2010 was approximately equal to that of 2009 with combined spending of nearly $27 million. Spending in 2010, however, remained approximately 8-10% below projected for the five-year grant cycle. As a result, many of the recipient states began the process of requesting grant extensions in order to complete jobs or programs that were delayed because of both manmade and natural impediments. These included delays in oyster restoration in 2008 because of the opening flood control structures in the lower sections of the Mississippi River to relieve flooding in the New Orleans area; delays in programmed work because of Hurricanes Gustav and Ike in the fall of 2008; and most recently, delays in a number of planned programs in 2010 because of fishery closures brought on by the Deep Water Horizon oil disaster in the Gulf. Staff will continue to work closely with individual states over the next several months to facilitate extensions where needed and to identify possible areas where there is a potential for funding to be lost due to inability of recipients to implement their programs in a timely manner.

The following tables provide an overview of activities for 2010.

Table 1 reflects the distribution of funding by category for each state as amended over the past four years. The Shrimp and Shellfish Habitat Recovery sub-award, which was originally programmed for 39.2% of the total Recovery grant, now reflects 23.5% of the total. Accordingly, Cooperative Research is now programmed for approximately 39.3% where it was previously 21%. The Oyster Recovery element remains unchanged. As indicated in previous annual reports, these changes were necessitated by changes in debris removal responsibilities and by changing priorities at the State levels.

Table 2 shows spending by category for 2010 and includes, for comparative purposes, the 2008 and 2009 categorical spending data. Overall spending in 2010 was approximately $26,924,161.47 as compared to nearly $17,955,045.41 in 2008 and $26,409,034 in 2009. The oyster program experienced a reduction in reimbursements during 2010 due, in large part, to the Oil Disaster, but also due to near completion of oyster work in both Mississippi and Louisiana. Both Alabama and Louisiana contributed to increase spending in the Habitat component as shoreline stabilization projects neared completion. Additionally, Louisiana accounted for the largest increase in reimbursements in the Cooperative Research component because of the completion of an economic survey of post-disaster business and industry recovery in its seafood and marine-related sectors.

Table 3 shows cumulative spending through the

Table 1. Distribution of Funding - October 1, 2006 through September 30, 2011 (as amended)

State	*Oyster Recovery*	*Shrimp and Shellfish Recovery*	*Cooperative Research*	*State Totals*
Louisiana	23,500,000.00	10,173,918.00	19,242,750.00	**52,916,667.00**
Texas	1,814,940.00	977,260.00	382,800.00	**3,175,000.00**
Florida	2,994,700.00	813,600.00	425,033.00	**4,233,333.00**
Mississippi	14,861.056.00	12,000,000.00	10,180,612.00	**37,041,667.00**
Alabama	7,116,306.00	221,251.68 5,620,355.00	6,224,706.00 10,450,714.00	**29,633,333.00**
Total	**$50,287,002.00**	**$29,806,384.00**	**$47,906,615.00**	**$127,000,000.00**
Percentage	**39.59%**	**23.47%**	**39.30%**	

end of 2010, reflecting combined reimbursements of nearly $102.6 million. Through December of 2010, approximately 80.8% of the total EDRP I fund had been utilized.

From a grant timeline perspective, by the end of December the program was 51 months into implementation or approximately 85% into allotted time. Previous annual reports indicated that the gap between projected and actual spending was 6-10% below projected; therefore, it can safely be concluded that spending had improved by the end of 2010. It is significant to note, however, that spending over the next nine months *(the end date of the EDRP I grant)* will need to approach $2.77 million per month in order to avoid a grant extension.

The primary reason for delayed spending is attributed to weather. Hurricanes and Mississippi River flooding in 2008 caused a significant delay in oyster restoration activity in Texas and Louisiana; drought conditions in the Mobile Bay area resulting in oyster drill infestations and loss of reefs in 2007

Table 2. Expenditures by Category 2010 – EDRP I

State	*Oyster Recovery*	*Shrimp and Shellfish Recovery*	*Cooperative Research*	*Total*
Louisiana	1,260,826.89	2,420,921.33	13,428,736.96	**17,110,485.18**
Texas	307,231,.04	442,258.74	74,105.82	**823,595.60**
Florida	469,493.92	75,001.94	502.02	**544,997.88**
Mississippi	674,697.79	230,101.48	1,636,957.11	**2,541,756.38**
Alabama	1,308,507.22	2,653,044.19	1,941,775.02	**5,903,326.43**
Total 2010	**$4,020,756.86**	**$5,821,327.68**	**$17,082,076.93**	**$26,924,161.47**
% of tot exp 2010	14.9%	21.6%	63.5%	
Total 2009	**$13,795,957.69**	**$3,474,587.34**	**$9,138,489.17**	**$26,409,034.20**
% tot exp 2009	52%	13%	35%	
Total 2008	**$7,761,702.03**	**$3,631,272.85**	**$6,562,070.53**	**$17,955,045.41**
% tot exp 2008	**43.0%**	**20.0%**	**37.0%**	

Table 3. CUMULATIVE Expenditures by Category through 2010 – EDRP I

	Oyster Recovery	*Shrimp and Shellfish Recovery*	*Cooperative Research*	*Total*
Total	**41,227,061.92**	**20,547,888.69**	**40,845,962.98**	**102,647,913.59**
% tot exp to date	**40.2%**	**20%**	**39.8%**	

and 2008 precluded the Alabama DCNR from further oyster restoration until conditions improved to support oyster growth; and prolonged rain and stormy conditions in the northern Gulf in 2009 delayed cultch planting, artificial reef restoration in Mississippi waters. Additional delays were seen in 2010 because many of the coastal fishing grounds were closed to fishing activity and related resource and habitat restoration effort five out of the 12 months of the year.

Measurable accomplishments for which EDRP I reimbursements were made through 2010 are reflected below.

Oyster Restoration

- Although most of the inshore oyster waters across the Gulf from Apalachicola, Florida to the Atchafalaya Basin in Louisiana were closed during the spring and fall of 2010 due to the Deep Water Horizon oil disaster, some success was seen in Texas, Alabama and Florida. It is estimated that a combined 200-400 acres in select areas saw cultch plants and/or oyster relays. Alabama alone relayed nearly 100,000 sacks of oysters from restricted areas in Mobile Bay to newly established reef sites after the impacts of the oil were diminished. Concurrently, both Texas and Florida saw cultch plants in areas that were minimally impacted by the oil catastrophe. Louisiana had completed most of its private lease restoration work in 2009 but continued to see reimbursements as it closed rehabilitation contracts and monitored recovery and/or damage to its public reefs. Mississippi also saw reimbursements for reef monitoring and mapping efforts but was unable to conduct the last of its planned cultch plants because of poor weather conditions early in 2010 and the uncertainty of oil impacts through October.

Overall expenditures in the oyster recovery effort were $41.2 million through December 2010, amounting to nearly 82% of the programmed work in the oyster budget. Oyster rehabilitation efforts in 2010 amounted to approximately $4 million compared to nearly $14 million in 2009 (see table 3), reflecting the delays caused by the oil disaster.

Habitat Restoration

- A number of scheduled projects within the Habitat (Shrimp and Shellfish) program were completed or saw significant progress during 2010. These included the completion of nearly 4600 feet of wave attenuation structures along the Gulf side of Little Lake in Bayou LaBatre, Alabama, and continuation of shoreline stabilization projects along impacted tidal marsh areas in both Louisiana and Texas utilizing materials suitable for oyster cultch.
- Additionally, Louisiana continued with debris removal projects in its nearshore and inland waterways, and with a demonstration project for simultaneous management of select waterways for maximizing use by both waterfowl and marine organisms.
- Mississippi continued with a number of programs involving monitoring, mapping, and control of Aquatic Invasive species, continued with a hydrological monitoring program in conjunction with the USGS, and continued with CPUE analysis in the Mississippi Crab sector of the industry.
- Both Texas and Florida are utilizing the Habitat component for oyster cultch plants and relays; and both saw significant progress in their respective programs during 2010.

Habitat expenditures in 2010 amounted to nearly $5.8 million which compared to expenditures of $3.6 million and $3.4 million in 2008 and 2009 respectively. Cumulative spending to date

under the Habitat component amounted to nearly $20.5 million or about 21% of the total EDRP I expenditures. Total spending to-date for this component amounts to only 69% of the budgeted amount.

Cooperative Research

Although continued deployment of offshore reef materials in Mississippi waters was hampered in 2010 because of the DWH disaster, the MDMR was successful in stockpiling nearly 16 barge loads of concrete rubble and crushed materials to complement past work efforts in restoring its offshore and inshore artificial reefs. Depending on weather conditions, deployment of these materials is expected to begin in the spring of 2011. Additional cooperative research initiatives in Mississippi include monitoring of both offshore and inshore reef recruitment, and monitoring of hatchery-raised reef fish on artificial reefs.

- In Texas, the cooperative research component involved identification and removal of debris from its nearshore inshore fishing grounds. This work was completed in 2010 in part with FEMA support. The remaining funds under this element were reallocated to Habitat restoration for additional oyster reef repair and enhancement.
- Alabama's Department of Conservation and Natural Resources, working under cooperative agreements with fishery organizations continued the collection of fishery data sheets as planned. Data sheets based on "trips on the water" have been collected from within the commercial shrimp, crab, oyster, live bait, and finfish fisheries, and in the for-hire fishery. The cooperative research reporting program for commercial fisheries was scheduled to end in July; however, because of the inability of commercial fishermen to harvest products since the DWH oil disaster, the program has been extended through November.
- Planning for the hatchery at Claude Peteet Mariculture Center in Gulf Shores continued during 2010. Monies from the Coastal Impact Assessment Program (CIAP) are being utilized to construct the building and EDRP monies are being used in the purchase of hatchery equipment and supplies. Additionally, the Department continued with contracts with area Universities and the Dauphin Island Seal Lab for finfish and related studies in its nearshore and offshore waters.
- Louisiana completed the "survey" element of an in-depth analysis of disaster-related economic impacts to its coastal fishermen, wholesalers, processors, and related fisheries industries and businesses. The data obtained through the survey is currently being analyzed through the LDWF economic bureau, and will be beneficial as the Department maps its course of economic recovery and market development.
- Work continued on an Oyster Larvae Dispersal study in Pensacola Bay by the Florida Department of Wildlife and Fisheries Research institute.

Cooperative Research expenditures in 2010 amounted to nearly $17.1 million which compares to $6.5 million in 2008 and $9.1 million in 2009. Cumulative spending to-date under the Cooperative Research component amounted to nearly $40.8 million or about 32% of the total EDRP I expenditures through 2010. Total spending to-date for this component amounts to only 85.4% of the budgeted amount.

EXPECTATIONS OVER THE UPCOMING YEAR – EDRP I

Recovery efforts in 2011 are expected to exceed those of 2010. All five states, due primarily to lost time because of the DWH incident in the Gulf, have formally requested no-cost grant extensions to complete work which was delayed. As a result, they are focused on completing scheduled work by the extended end date of August of 2012. Additionally, amendments to individual sub-awards are likely to be seen in 2011 and early 2012 as the States assess the changing need to realign fund balances where they are needed most.

ECONOMIC ASSISTANCE PROGRESS AND SPENDING – EDRP II

The second Congressional supplemental appropriation to the Gulf States for fisheries assistance following Hurricanes Katrina, Rita, and

Wilma in 2005 was approved in September 2007 in the amount of $84,915,000. It is directed towards providing financial assistance to the Gulf States fishing industry to restore and further stabilize the industry during its recovery period.

Under this program, economic assistance is made available to shrimpers who were compliant with by-catch reduction regulations including use of turtle excluder devices (TEDs); to fishery-related businesses and industries that received damages or losses beyond that which was covered by insurance or other forms of assistance; to individual fishermen who were impacted through the loss of markets, equipment and infrastructure services; and, for seafood testing and promotion of Gulf-caught seafood products.

To-date, most of the reimbursements continue to reflect the efforts of Alabama, Mississippi, and Louisiana where the majority of the economic losses were found and where most of the funds were programmed. As indicated in **Table 4**, the majority of planned spending is for assistance to fishermen, marine-related businesses, and marine industry. Combined budgets for these two categories amount to nearly 90% of the total award to the five Gulf States. The balance is programmed for additional assistance to TED/BRD compliant fishermen and for seafood marketing and testing.

As indicated in **Table 5**, by the end of 2010, over $67.8 million (nearly 80% of the total budget) had been reimbursed throughout the Gulf States, with almost 65% of these being distributed under the **Economic Assistance to Fishermen** category, and another 30% having been distributed to assist impacted businesses and industries. However, as indicated in the notes in **Table 4**, a large portion of the Assistance to Commercial Fishermen (ACF) is attributed to the sub-award for Louisiana, wherein both Assistance to Fishermen and Assistance to Business and Industry (ASBI) are combined, resulting in skewed figures under the ACF category.

The majority of these expenditures were in the form of direct financial assistance to fishermen, businesses, and seafood industries that were qualified by virtue of licensing, trip reports, loss records, landings, revenue and tax records, and other criteria as defined and validated by the respective states. In some instances, distribution was made in part for services rendered, such as in Mississippi where oystermen received a portion of the State's apportionment for additional oyster relays conducted early in 2008. In other instances, distribution is made in the form of waterfront access upgrades, as in Texas, where it was determined that the long-term use of these improvements would be of greater benefit to the area fishermen than minor direct financial distributions. Still others utilized portions of their allocations to continue with

Table 4. Planned Utilization of Funding December 1, 2007 through November 30, 2012

State	*Economic Assistance for Fishermen*	*Assistance for Commercial Businesses & Industry*	*Additional Assistance for TED/BRD Compliance*	*Domestic Product Marketing and Seafood Testing*	*State Totals*
Louisiana	39,153,631.00		825,460.00	1,293,909.00	**41,273,000.00**
Texas	1,173,000.00		27,000.00		**1,200,000.00**
Florida	460,000.00	1,500,000.00	40,000.00		**2,000,000.00**
Mississippi	6,300,000.00	14,000,000.00	650,000.00	4,050,000.00	**25,000,000.00**
Alabama	3,900,000.00	10,800,000.00	300,000.00		**15,000,000.00**
Total	**50,986,631.00**	**26,300,000.00**	**1,842,460.00**	**5,343,909.00**	**84,473,000.00**
Percentage	**60%**	**31.1%**	**2.2%**	**6.3%**	

Table 5. CUMULATIVE Expenditures by Category through 2010 – EDRP II

State	*Economic Assistance for Fishermen*	*Assistance for Commercial Businesses & Industry*	*Additional Assistance for TED/BRD Compliance*	*Domestic Product Marketing and Seafood Testing*	*State Totals*
Louisiana	36,000,163.40		825,426.00	237,585.75	**37,063,175.15**
Texas		314,895.33	27,000.00		**341,895.33**
Florida	187,014.58	777,374.05	40,000.00		**1,004,388.63**
Mississippi	5,999,455.91	8,648,154.46	643,434.26	1,604,653.69	**16,895,698.18**
Alabama	1,977,101.96	10,305,766.22	300,000.00		**12,582,868.18**
Total	**44,163,735.85**	**20,046,190.06**	**1,835,860.26**	**1,842,239.44**	**67,888,025.61**
% of overall spending	65.05%	29.53%	2.7%	2.71%	
% of budgeted	**74%**	**68%**	**100%**	**24.19%**	**80.37%**

CPUE trip reports – indirectly providing financial assistance.

In Florida, other than direct distributions for TED/BRD compliance, no direct distributions were made. In lieu thereof, the State instituted additional oyster cultch planting to enhance the State's fishing grounds and developed an electronic log book reporting system for the "for-hire" fishing industry.

Overall spending in 2010, as reflected in **Table 6,** was slightly over $9.8 million. This represents only about 24% of the spending in 2008 and about 50% of the spending for 2009. As indicated in previous reports, most spending under this sub-award was planned to be during the early part of the grant period in order to provide relief to its fishermen and businesses as soon as possible. A review of the categorical spending as percent of that which was budgeted, **Table 5** indicates that the states continue to be successful in that 74% of the ACF budget, 68% of the ASBI budget, and 100% of the TED/BRD budgets had been utilized through 2010.

Table 6. Expenditures by Category in 2010 – EDRP II

State	*Economic Assistance for Fishermen*	*Assistance for Commercial Businesses & Industry*	*Additional Assistance for TED/BRD Compliance*	*Domestic Product Marketing and Seafood Testing*	*State Totals*
Louisiana	4,145,655.07		164,340.00	178,331.86	**4,488,326.96**
Texas	na	314,895.33	27,000.00	na	**341,895.33**
Florida	138,632.68	138,100.00		na	**276,732.68**
Mississippi	1,149,237.38	1,207,113.31	54,344.15	1,023,341.43	**3,434,036.27**
Alabama	833,491.86	512,831.08	**Completed in 2008**	na	**1,346,322.94**
Total	**6,267,016.99**	**2,172,939.72**	**245,684.15**	**1,201,673.32**	**9,887,314.18**

EXPECTATIONS OVER THE UPCOMING YEAR – EDRP II

Planned expenditures, reimbursements, and related work efforts in 2011 are expected to steadily decrease as each of the States completes its planned programs. With nearly 80% of the overall program already complete, there remains only about 20% in other components to be completed over the next three years. Of these, however, nearly $5.1 million or about 6.2% of the total budget are in the marketing and testing components and are scheduled for the duration of the grant.

Under these circumstances, it is expected that the remaining distributions will be finalized by the end of 2012, and that only minimal, if any, amendments or realignments will be seen.

OIL DISASTER RECOVERY PROGRAM (ODRP)

Ralph E. Hode, Fisheries Disaster Program Coordinator

History was made in the Gulf of Mexico in 2010 when, on April 20th, the British Petroleum drilling rig Deep Water Horizon exploded approximately 50 miles south of the mouth of the Mississippi River, resulting in the indefinite closure of nearly 36% of the waters in the Gulf to all fishing activity. Secretary of Commerce, Gary Locke, in response to the disaster, declared fisheries failures in Florida, Alabama, Mississippi, and Louisiana, on June 2, 2010, creating an opportunity under section 312 of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1861a), for Congress to appropriate funding that would aid in the post-oil disaster fisheries recovery. As a result, the 111th Congress' Supplemental Appropriations Bill included $15 million for use in the Gulf States for fisheries assistance. These funds were directed to the Gulf States Marine Fisheries Commission for administration and coordination through a cooperative agreement with NOAA Fisheries.

Through extensive coordination and collaboration with an Ad Hoc Steering Committee, composed of State Marine Directors, and with NOAA and the Southeast Regional Office of the National Marine Fisheries Service, as well as industry stakeholders, it was determined that the greatest short-term need was to dispel myths and negative perceptions of the quality and availability of Gulf seafood products and to provide health and safety assurances for those products.

A formal proposal based on these determinations was forwarded to NOAA in late August. And, on September 17, 2010, GSMFC received final approval from NOAA for a Gulf-wide marketing program designed to implement marketing strategies that would address the short-term needs, as well as, set the stage for long-term promotion of Gulf seafood products. The following are key components of the resulting Oil Disaster Recovery Program (ODRP) as approved by NOAA. Implementation will begin early in 2011 and is expected to continue through 2015.

- Coordination and Administration of the Oil Disaster Recovery Program activities at the regional level by GSMFC
- Oil Disaster Outreach and Marketing Activities designed to seat and fund a Gulf-wide coalition of marketing and industry specialist to develop plans and programs aimed at dispelling myths and expanding markets on a continuing basis
- Development and Implementation of Seafood Quality Assurance and Product Sustainability Certification programs for commercial Gulf of Mexico (GOM) Keystone Species that will aid in opening national and global markets to Gulf products
- Provide ongoing Product Quality Assurance through the provision of funding opportunities for expanded seafood testing at individual state levels
- Address Grant Match Assurances - Section 312, of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1861a) specifies that not more than 75% of the approved program shall be paid for with federal funds. The objective of this element is to provide and account for the remaining non-federal 25% share of the costs associated with the Gulf of Mexico fisheries recovery effort under the Oil Disaster Recovery Program. This component was completed in 2010 as the Commission staff worked closely with the Alabama Department of Conservation and Natural Resources, and the Gulf Shores and Orange Beach Convention and Tourism Board to pre-qualify non-federal expenditures incurred by the State of Alabama during the period July 1, 2010 through September 15, 2010 to meet the match requirements.

Work efforts on the part of GSMFC and the GOM Ad Hoc Advisory Committee in 2010 laid the groundwork for program implementation which is expected to begin early in 2011. Already a number of appointments have been made to a GOM Marketing Coalition consisting of key State

Marketing specialists from each of the five states and meeting dates have been set for moving the key program components forward in as timely a manner as possible.

STOCK ASSESSMENT ENHANCEMENT PROGRAM (SAE)

David M. Donaldson, GSMFC Assistant Director

The Stock Assessment Enhancement Program (SAE) was created in response to the BP Deepwater Horizon disaster. Congress allocated $10 million to conduct an expanded stock assessment of the fisheries of the Gulf of Mexico. Such expanded stock assessment shall include an assessment of the commercial and recreational catch and biological sampling, observer programs, data management and processing activities, the conduct of assessments, and follow-up evaluations of such fisheries. The funds were appropriated to the Commission via a cooperative agreement in October 2010 and will be used to fund a variety of activities including state trip ticket operations, menhaden port sampling, implementation of the for-hire logbook program, and expansion of fishery-independent sampling in the Gulf of Mexico. These activities will be conducted from 2011 to 2015.

SPORT FISH RESTORATION ADMINISTRATION PROGRAM

James R. Ballard, Program Coordinator

The Gulf States Marine Fisheries Commission (GSMFC) provided administrative support for the "Sport Fish Restoration Administrative Program," FWS Grant Agreement No. GS-96-Segment 13. The GSMFC furnished services, qualified personnel, materials, equipment, and facilities as needed to perform required duties.

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

Artificial Reef Activities

General Coordination

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

Gulf-Wide Artificial Reef Monitoring Program

The Program Coordinator started the process of trying to establish a Gulf-wide monitoring program for artificial reefs. The goal of this proposed program is to establish the baseline data needed to demonstrate how the reefs perform over time and allow us to assess impacts from man-made/natural disasters in the future. The GSMFC's Artificial Reef Subcommittee held a meeting in October to discuss different monitoring techniques that would be needed to cover the wide variety of artificial reefs in the Gulf. After a lot of discussion on different sampling methods that the states could utilize to sample their reefs, it was determined that one set sampling protocol would probably not work for all states and reef types. The Subcommittee decided instead to outline four main goals that they would like to get out of this effort. They would like to be able to track the Biomass, Species Diversity, Water Quality, and the physical projections of their reefs utilizing a Video component. With these goals in mind, the five state reef coordinators agreed to put together a sampling plan for their respective state, that will cover a representative sample of their entire reef program. At the subcommittee's next meeting in the spring of 2011, we will go over the five reports and look at ways to make them as standardized across the Gulf as possible so data can be compared from state-to- state. Following that meeting, a Gulf-wide monitoring protocol will be developed from the individual state plans and a project proposal will be developed to try to secure funding for this project.

Artificial Reef Website and Bibliography Database Activities

The Program Coordinator updated the content of the artificial reef website that is housed on the GSMFC's website. He also added new artificial reef journal articles to the "Reef Compiled Data" bibliography database that is accessible from the GSMFC website.

Habitat Activities

The Program Coordinator supported and participated in the meetings of the TCC Habitat Subcommittee. This Subcommittee has currently been working on the development of a GSMFC Best Management Practices for inshore artificial reefs with help from the Artificial Reef

Subcommittee. After a review from the TCC, it was decided that the document would be sent back to the Artificial Reef Subcommittee for their recommendations on how to move it forward. The Artificial Reef Subcommittee will try to create a revised draft document that both subcommittees can agree on, that also, address the concerns of the Habitat Subcommittee that initiated the creation of the original draft BMP's document.

Fisheries Outreach Activities

The new TCC Fisheries Outreach Subcommittee held its first meeting at the GSMFC spring meeting in Alabama. The Subcommittee is made up of public relations staff from the marine resource agencies in our five member states, the Gulf of Mexico Fisheries Management Council and the U.S. Fish and Wildlife Service. Each member gave an overview of their state's/agencies' ongoing outreach activities and talked about ways to work more cooperatively. The members of the Subcommittee, as well as the Commission, found a real benefit to this cooperation and information sharing. As a result of this meeting, states were able to borrow ideas and materials from each other and initiate new outreach activities like the monofilament recycling program. Ultimately, the Subcommittee would like to use this forum to develop unified messages and consistent ways to present those messages at outreach events across the Gulf. This form of unified effort would make sure that all of our member states and agencies are conveying to the fishing public the same important fisheries information. The subcommittee will hold its next meeting in conjunction with the Gulf of Mexico Fisheries Management Council's Education and Outreach Advisory Panel in the spring of 2011.

Invasive Species Activities

The Program Coordinator continues to work in conjunction with the National Aquatic Nuisance Species Task Force (ANSTF) to determine appropriate actions and roles for the GSMFC and its member states in addressing invasive species issues. In addition, the GSMFC provides administration for and participates in the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species (GSARP). During this reporting period, the Program Coordinator arranged meetings of the GSARP, its associated work groups, and its steering committee.

The GSMFC continues to host the invasive species website for the GSARP. The website address is ***http://nis.gsmfc.org***. It can also be accessed by going to ***www.gsmfc.org*** and clicking on "Aquatic Invasive Species Program" in the description of the Sport Fish Restoration Administration Program. During 2010, the Program Coordinator worked with the GSARP's Information Management Work Group to update the content of this website.

Associated Meetings

1/21-23/2010	2010 Florida Artificial Reef Summit
2/9-10/2010	27th Annual Morone Workshop
3/8-11/2010	Gulf States Marine Fisheries Commission Annual Spring Meeting
3/9/2010	TCC Fisheries Outreach Subcommittee Meeting
4/26-29/2010	Gulf and South Atlantic Regional Panel on Aquatic Invasive Species Meeting
6/22-24/2010	Invasive Species Advisory Committee Meeting
7/27-28/2010	GSARP Rapid Response Workgroup Meeting
8/30-9/2/2010	17th International Conference on Aquatic Invasive Species
10/18-21/2010	Gulf States Marine Fisheries Commission Annual Fall Meeting
10/18/2010	TCC Artificial Reef Subcommittee Meeting
10/27-28/2010	Gulf and South Atlantic Regional Panel on Aquatic Invasive Species Meeting
11/3-4/2010	National Aquatic Nuisance Species Task Force Meeting

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

James R. Ballard, Program Coordinator

The Gulf and South Atlantic Regional Panel on Aquatic Invasive Species (GSARP) met twice during 2010. The first meeting was held April 27-28 in Biloxi, Mississippi and the second was held October 27-28 in St. Petersburg, Florida.

During the period covered by this report, the GSARP Coordinator attended meetings and participated in planning and development activities necessary to meet the needs and goals of the Panel. The Program Coordinator, through the Gulf States Marine Fisheries Commission (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.

Administrative Support for the GSARP

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

The Panel is keeping a close eye on the spread of lionfish. The number of lionfish sightings along the east coast and in the Caribbean is continuing to increase. Along with expanding its range, lionfish densities in the invaded range are reaching levels eight times higher than in their native range. In December 2009, two specimens were collected north of the Yucatan, which was the first confirmed sighting of established lionfish in the Gulf of Mexico. In 2010, lionfish have continued to spread, with over 50 sightings in Gulf waters with nine from the northern Gulf in six different locations. The Program Coordinator developed a "lionfish wanted" sign to encourage anyone that may encounter a lionfish to report the sighting to the USGS. These signs are being placed in dive shops, bait shops, marine agencies, and other locations around the Gulf where people who may encounter a lionfish will see them. These reports will be very important in tracking the lionfish invasion in the Gulf of Mexico and getting an idea of the habitats they are utilizing and their densities.

The Program Coordinator and the GSARP are exploring other funding possibilities to secure money so the Panel can start to be more proactive in their efforts to control aquatic invasive species in the Gulf and South Atlantic Region.

GSARP Member States ANS Management Plans

- Alabama, Georgia, Louisiana, and South Carolina have completed plans and are actively implementing them.
- Mississippi's plan has gone through the preliminary review by the ANSTF and they are working on incorporating the recommended changes.
- Florida has a completed plan but it has not been approved by the ANSTF.
- Texas will soon submit the final drafts of their plan to the ANSTF for review.
- North Carolina is in the preliminary stages of formulating their plan.

Logistical and Administrative Support for the GSARP Committees and Work Groups

The GSARP has several work groups directed toward providing advice and guidance on selected subject matter. These groups require meetings and/or telephone conference calls from time to time, and the GSMFC provided staff to assist these work groups in carrying out their respective charges. Planning and logistics for meetings and maintenance of administrative records of such meetings are the responsibility of the staff.

The Panel's Rapid Response Work Group has drafted a new rapid response plan that incorporates

the Incident Command System and elements of other plans that have been used across the country. The Work Group held a meeting in July to review/edit this new document and presented the revised draft to the full Panel at its meeting in October. Following the October Panel meeting, the work group held another meeting to further refine this document and will continue to work over the next few months to, hopefully, have a final draft for the full Panel to review before their spring meeting.

The Panel formed an ad hoc work group to draft an informational document on *Tubastraea sp.* for the South Atlantic Fisheries Management Council (SAFMC). There are currently three species that have been reported in the Gulf and South Atlantic region and, presently, the SAFMC does not have any clarification to distinguish *Tubastraea sp.* from the other stony corals protected under their management plan.

Subcontract Awards

At their fall 2010 meeting, the Panel voted to fund the following three projects in 2011.

1. The AIS Traveling Trunk:

The project will develop and produce a traveling trunk of hands-on invasive species examples. Included will be an annotated outline of talking points for presentation to secondary school students and laymen. The material will cover: definitions, sources, ecological impacts, economic costs (when available), suggested public actions, and websites for additional information. The invasive flora and fauna material will contain bullets covering native origin, purpose of introduction (if intentional), route, and a brief life history with ecological and economic impacts. A CD of the talking points and species will be included for visual presentation. The updated listing of invasive species under preparation will be included for reference. The "Traveling Trunk" will be created in a container that can be easily sent by mail. The GSARP office at the GSMFC will be requested to house the "Trunk", and a $200 allowance is part of the budget to cover shipping costs. Return will be at the borrower's expense. Notice of availability is intended to be posted on the GSARP website. No viable materials/specimens will be in the final product.

2. Trojan Y Chromosome Eradication of Invasive Fish – Development of Sex-specific DNA Markers:

A means of inducing extinction of an exotic population was recently proposed using a genetic approach to shift the ratio of male to female within a population. In the proposed strategy, a "Trojan YY fish" consisting of a sex-reversed fish containing two Y chromosomes are introduced into a normal fish population. These YY fish result in the production of a disproportionate number of male fish in the population in subsequent generations. For this study, Nile tilapia, *Oreochromis niloticus*, which have become established in several GSARP states, will be utilized because they have an XY sex-determination system and both male and female YY fish of this species have been produced using hormone-induced sex reversal combined with selective breeding. In order to test the feasibility of a Trojan Y Chromosome eradication strategy for *O. niloticus*, YY broodstock must first be developed. The primary difficulty in developing YY broodstock is correctly identifying the sex chromosome genotype of fish used in the breeding program. Sex chromosome genotyping of fish could be greatly facilitated if DNA probes specific to the *O. niloticus* sex chromosomes were available. The purpose of this study is to identify these sex-specific DNA markers. Randomly amplified polymorphic DNA (RAPD) fingerprinting techniques that have been successfully applied to other species will be applied to *O. niloticus*. Novel sex-specific PCR products will be identified that are specific to either female or male individuals. Markers will then be tested on sex-reversed fish to determine their utility in YY broodstock development.

3. Reproductive Sterility as Tool for Prevention and Control of Invasive Aquatics:

Nonindigenous apple snails present two problems in the GSARP region. First, the species *P. insularum* is widespread throughout the region and no method currently exists for eradication. Second, aquarium dumping remains a potential route for new introductions of nonindigenous apple snails into watersheds in the region. This study will address both of these problems. To address

the first problem, two alternative approaches for irradiation will be developed to generate sterile snails in high yields. Triploidy and chromosomal translocations in *P. insularum* will be investigated as new methods for producing sterile apple snails for release. To address the second problem, reproductively sterile apple snails of two species in demand as ornamentals in the aquarium trade will be produced.

Panel Recommendations to the ANS Task Force

- The GSARP strongly encourages the ANSTF to continue to work on securing more funding for state plans and the Panels so they can start to be more proactive in their efforts to control aquatic invasive species.

Associated Meetings

April 27-28, 2010	Gulf and South Atlantic Regional Panel on Aquatic Invasive Species Meeting
May 4-7, 2010	National Aquatic Nuisance Species Task Force Meeting & Panel Workshop on Rapid Response Planning
June 22-24, 2010	Invasive Species Advisory Committee Meeting
July 27-28, 2010	GSARP's Rapid Response Work Group Meeting
August 30-Sept. 2, 2010	17th International Conference on Aquatic Invasive Species
October 27-28, 2010	Gulf and South Atlantic Regional Panel on Aquatic Invasive Species Meeting
November 3-4, 2010	National Aquatic Nuisance Species Task Force Meeting

SOUTHEAST MONITORING AND ASSESSMENT PROGRAM (SEAMAP)

Jeffrey K. Rester, Program Coordinator

In 2010, SEAMAP operations continued for the twenty-ninth consecutive year. Last year, total program allocations for all three SEAMAP components, Gulf, South Atlantic and Caribbean, were approximately $5.09 million.

The 2005, 2006, and 2007 SEAMAP Environmental and Biological Atlas of the Gulf of Mexico were published in 2010. These Atlases provide a summary of all SEAMAP data collected during 2005, 2006, and 2007. The Atlases are available on the Commission's web site for anyone interested in downloading a copy.

The Commission continues to handle SEAMAP data management duties in the Gulf of Mexico. The Commission received numerous data requests in 2010 for SEAMAP data related to the oil spill and the natural resource damage assessment (NRDA) process. The Commission has also built several new tools to visualize SEAMAP catch data. Tools allow users to view station locations for all SEAMAP surveys since 1982 and see where a species has been caught. Users can also view catch per unit effort (CPUE) for any species caught by SEAMAP. This can be visualized for a single year or for several years at one time. This information can be viewed at http://seamap.gsmfc.org.

SEAMAP is also in the process of revising and updating their 2011 to 2015 management plan. The SEAMAP management plan provides a statement of the current goals, management policies, procedures, and priorities for all SEAMAP components and partnerships. As part of the SEAMAP strategic planning process, SEAMAP sponsored a fishery independent data workshop in September 2010. Approximately 50 researchers from around the Gulf of Mexico attended and discussed current and future fishery independent data needs, collection methods to obtain the needed data, and survey designs for data collection.

The Winter Shrimp/Groundfish Survey took place from February 1-28, 2010. One hundred nineteen stations were sampled by Louisiana, Alabama, and Texas during the survey that used protocols similar to the other shrimp/groundfish surveys. A new Spring Shrimp/Groundfish Survey also took place from April 16-19, 2010 collecting data at 33 stations.

The SEAMAP Spring Plankton Survey took place from April 3 to May 23, 2010. NMFS collected ichthyoplankton samples at 87 SEAMAP stations. This was the 29th 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.

The Inshore Longline Survey complements an existing long-term fisheries independent survey currently being conducted by NMFS, by targeting shark species within the shallow waters of the north central Gulf of Mexico. The objectives of the survey were to collect information on coastal shark abundances and distribution with a one-mile longline and to collect environmental data. Mississippi also sampled 41 stations from March to October 2010. Texas sampled 25 stations from March through September 2010, while Alabama sampled 20 stations during the same period.

In 2010, Alabama started a new vertical longline survey to sample reef fish over artificial reefs and other areas. Two structure and two non-structure areas were randomly chosen and equally allocated across three depth strata. Vertical longline reels were randomly baited with either Atlantic mackerel or squid. Soak time was five minutes. Fish were retained and processed for age and fecundity. All fish were sacrificed for otoliths at stations deeper than 60 m. In water depth less than 60 m, stations were assigned as tag and release or collection sites. Two hundred thirteen sets were completed in April, May, and June of 2010.

The primary purpose of Reeffish Survey was to assess relative abundance and compute population estimates of reeffish found on natural reeffish habitat in the Gulf of Mexico. Video stereo cameras were used during the survey since they enabled the measurement of length frequencies. Each stereo camera contained paired black-and-white Video stereo still cameras along with a color mpeg camera in a cylindrical pressure housing. Four of these were mounted in a camera array and were positioned orthogonally with the center of the camera mounted 51 cm above the bottom of the array. A chevron fish trap that measured 1.83 x 1.83 x 0.75 meters with 3.81-cm mesh, was used to capture fish for ageing and other life history studies. Both the fish trap and camera array were baited with squid. The camera array was allowed to soak on the bottom for 30 minutes, and the fish trap soaked for one hour. In August 2010, Florida sampled 32 stations on the west Florida shelf. NMFS conducted reeffish sampling in June and July 2010 and completed 106 stereo video stations and 19 chevron fish trap stations.

The overall sampling strategy during the 2010 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. The Survey was conducted from May 31 to August 26, 2010. Florida, Alabama, Mississippi, Louisiana, Texas, and NMFS sampled 457 trawl stations during the survey. In addition, NMFS and Louisiana vessels collected ichthyoplankton data. Objectives of the survey were to monitor size and distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf; aid in evaluating the "Texas Closure" management measure of the Gulf Council's Shrimp Fishery Management Plan; and provide information on shrimp and groundfish stocks across the northern Gulf of Mexico from inshore waters to 50 fm.

The Fall Plankton Survey took place from August 24 through September 29, 2010. NMFS sampled 159 stations, Mississippi sampled 13 stations, and Louisiana sampled seven stations. The objective of this survey was to collect ichthyoplankton samples with bongo and neuston gear for the purpose of estimating abundance and defining the distribution of eggs, larvae, and small juveniles of Gulf of Mexico fishes, particularly king and Spanish mackerel, lutjanids, and sciaenids.

The Fall Shrimp/Groundfish Survey took place in October and November 2010 from off Tampa, Florida to the U.S.-Mexican border. Vessels sampled waters out to 60 fm with trawls and plankton nets in addition to environmental sampling. The objectives of the survey were to sample the northern Gulf of Mexico to determine abundance and distribution of demersal organisms from inshore waters to 60 fm; obtain length-frequency measurements for major finfish and shrimp species to determine population size structures; collect environmental data to investigate potential relationships between abundance and distribution of organisms and environmental parameters; and collect ichthyoplankton samples to determine relative abundance and distribution of eggs and larvae of commercially and recreationally important fish species.

JOINT GSMFC/GMFMC HABITAT PROGRAM

Jeffery K. Rester, Program Coordinator

The Gulf of Mexico Fishery Management Council (Council) submitted their 5-Year EFH Review Report to NMFS in November as required by the Magnuson-Stevens Act. The 5-Year EFH Review Report includes sections reviewing existing EFH descriptions and designations by life stage for errors; evaluating new information available since the 2005 EFH Amendment for EFH descriptions and designations; determining possible new methods of designating EFH; evaluating how species specific EFH identifications and descriptions can be better presented in addition to the FMP description; making recommendations on whether EFH descriptions should be updated; reviewing any changes and new information on fishing impacts that may adversely affect EFH; reviewing any changes and new information on non-fishing impacts that may adversely affect EFH; reviewing habitat areas of particular concern (HAPC) designations; determining if current HAPC designations are adequate or if areas need to be removed or added.

A literature review provided new information on some managed species' habitat utilization, but did not provide any information that would dramatically alter current EFH designations and descriptions. The report incorporated SEAMAP plankton data that was used to map the distribution and abundance of larval fish and shrimp. The larval fish and shrimp mapping represents a significant gain in knowledge for describing and designating EFH for the early life history of managed species. While many new models and methods exist for designating EFH, they require the appropriate data inputs to produce accurate results. Brown shrimp were used to demonstrate a correlation based habitat model with SEAMAP trawl data. SEAMAP trawl data could also possibly be used to produce EFH maps for white shrimp, juvenile red snapper, and possibly other managed species. Unfortunately, data are lacking for most managed species across their entire ranges and life cycles. However, other data sources (e.g., NMFS longline monitoring) may be suitable fisheries independent data for refined EFH maps for additional managed species (e.g., red snapper) or age classes. Five new banks off Louisiana were proposed as habitat areas of particular concern (HAPC) based upon recommendations from the Flower Gardens Bank National Marine Sanctuary staff. The Pinnacle Trend area off Alabama and Mississippi was also proposed as a HAPC. The fishing impacts on habitat literature review did not produce any new evidence or understanding on how current fisheries in the Gulf of Mexico are impacting habitat. Since the 2005 EFH Amendment, one potentially destructive gear, fish traps, has been banned in the Gulf of Mexico. Recreational and commercial fishing effort has declined in recent years. Possible specific actions to consider in a future EFH Amendment update are: 1) use SEAMAP plankton data to designate and describe EFH for the early life history of managed species; 2) consider additional HAPC designations; and 3) refine EFH maps to species and life-stages and provide higher resolution of spatial EFH representation.

The Texas Parks and Wildlife Department and Harte Research Institute sponsored a freshwater inflow conference in February 2010. Speakers discussed the value of freshwater inflows, threats to freshwater inflows, data and monitoring needs, freshwater inflow recommendations, new modeling techniques, along with approaches taken by several states around the country. The purpose of the conference was to highlight the importance of freshwater inflows and to identify water management questions and approaches that protect estuaries. Through plenary sessions, discussion groups, and presentations, recommendations and goals for the future were established.

The Council's Texas Habitat Protection Advisory Panel (Texas AP) met in December. The Texas AP discussed the long-term recovery plan after the Deepwater Horizon oil spill, the National Ocean Policy Task Force, several wetland restoration

projects in west Galveston Bay, the Deepwater Horizon oil spill, the National Resource Damage Assessment (NRDA) process, the Gulf of Mexico Alliance Regional Sediment Management Plan, and the Council's EFH 5-Year Review Report.

The Council's Louisiana/Mississippi Habitat Protection Advisory Panel (Louisiana/Mississippi AP) met in December also. The Louisiana/Mississippi AP met and discussed fishery modeling analyses for water resource projects, mitigation and restoration for damages to habitat from preventative oil spill protective work, the long-term recovery plan after the Deepwater Horizon oil spill, the status and future of the Coastal Wetlands Planning, Protection, and Restoration Act Program, the Louisiana state master plan prioritization process, the NRDA process in Louisiana, and the Council's EFH 5-Year Review Report. The Louisiana/Mississippi AP recommended that the Council draft a letter to the Corps recommending that analysis of project's impacts on marine fishery production and water quality be commensurate with the level of potential impacts, including but not limited to modifications of the Davis Pond and Carnarvon Diversions, Donaldsonville to the Gulf, MRGO Ecosystem Restoration, White Ditch Diversion, and the Myrtle Grove Diversion. The Louisiana/Mississippi AP also recommended that the Gulf Council task staff with determining how to actively engage in the Gulf Coast Ecosystem Restoration Task Force and NRDA processes to ensure that the impacts to marine fisheries, their EFH, and restoration potential for both are addressed in both forums.

INTERJURISDICTIONAL FISHERIES (IJF) MANAGEMENT PROGRAM

Steven J. VanderKooy, Program Coordinator

The IJF program continued to provide the Gulf States with quality information and recommendations for interstate management of fisheries through the development and revision of its Fishery Management Plans. The IJF staff reviewed previously developed FMPs and monitored each state's progress in implementing management recommendations. The State-Federal Fisheries Management Committee (SFFMC) reviewed these findings at the GSMFC's 60th Annual Meeting.

During 2010, the IJF Program Coordinator was Mr. Steven J. VanderKooy while Ms. Debora K. McIntyre served as the IJF Staff Assistant. The IJF staff arranged and provided support for meetings, work groups, and committees. Program staff continued to accumulate data, research papers, and other materials critical to the further development of the FMPs in progress. A contractor continued to computerize the IJF literature repository into an electronic data base. Revisions, updates, and other pertinent information were distributed to technical task forces (TTFs), state personnel, and agency directors, as needed or requested, regarding FMP development.

The Oyster TTF met in January in St. Petersburg, Florida, for final drafting of the "Recommendations" section, as well as, the stock assessment. Dr. Richard Fulford (GCRL) has been continuing to work with the oyster assessment and, along with Dr. Bill Arnold (NOAA formerly FWC), has developed a significant portion of the complete section. At the meeting, a number of outstanding items were identified, and the state representatives on the task force were asked to provide their state-specific fisheries information by March. The state landings data is the most difficult to interpret due to many non-biological events and climatic conditions driving the availability of product in any given year or month. The state representatives provided the historical background, as well as the general trends in landings, participation, and effort to complete this section.

Several conference calls and webinars were used later in the spring to complete the final reviews of the completed draft sections. Delays in the receipt of IJF funds made additional meetings impossible until the early summer. The sinking of the Deepwater Horizon Oil Platform further confounded any efforts to meet again until August in New Orleans, Louisiana. At that meeting, a number of sections were finalized and assignments remaining were placed on strict deadlines. The TTF was divided into teams of two to begin the final review of most of the complete draft sections. At their meeting in November, the TTF did the final review and signed off on several of the sections. It is expected that the revision will be complete in early 2011.

The Arenarius TTF did not meet at all in the first part of 2010 due to funding delays and oil issues. The group had their first meeting in September in Naples, Florida, where they finalized a number of mostly complete sections. The TTF was divided into teams of two to begin the final review of completed sections. It is anticipated that the final draft will be ready to begin the Commission's internal review in early 2011.

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 met in a joint work session in July with the Gulf of Mexico Fisheries Management Council to update the 2011-2012 Gulf of Mexico Cooperative Law Enforcement Operations Plan. The IJF program set up and staffed the work session. The final draft of the plan was reviewed by the GSMFC and the GMFMC and approved at their meetings in October.

The *Rules and Regulations: Officers' Pocket Guides 2010-2011*, which provided the state

and federal regulations for use by fisheries law enforcement officers across the Gulf, was printed again using IJF funds. In addition, the long standing 'red book' Law Summary for 2009-2010 was produced in an electronic-only format and are available on the GSMFC Web site for download. Finally, the LEC continued to support the ongoing recovery efforts through enforcement and support to the EDRP and ODRP programs. JEAs continued to drive activities throughout the Gulf and the committee held monthly conference calls to keep communications open and to share information.

The Crab Subcommittee continued to look at ways to incorporate the lipofuscin ageing technique into their state sampling programs. Florida acquired the equipment independently, and there were discussions about attempting a pilot study with the other states using known-aged crabs. The Subcommittee is continuing to provide landings data to Butch Pellegrin at NOAA, in an effort to produce a regional stock assessment. The ageing data generated by the lipofuscin may be used in this process if it produces acceptable results and additional outside funding can be obtained.

While the IJF Program does not support any of the derelict trap efforts at this time, several state-sponsored derelict trap cleanups occurred this past winter using volunteers.

Program administration in 2010 included financial and logistic support for all IJF-related meetings; production, duplication, and distribution of all documentation and correspondence related to the program; as well as, provision of accountability reporting to the funding agency. In addition, the GSMFC IJF Program staff continued to provide numerous copies of existing FMPs, profiles, amendments, revisions, and other information upon request.

Electronic copies of all new GSMFC publications were generated and have been added to the publications on the Commission website. Finally, the IJF Staff Assistant continues to edit, publish, and distribute two regional management documents annually; *Licenses and Fees for Alabama, Florida, Louisiana, Mississippi, and Texas in their Marine Waters for the Year* and *A Summary of Marine Fishing Laws and Regulations for the Gulf States*. The IJF staff continues to house and enter programmatic reprints and support literature into the Commission's database. In 2010, the database was converted from Procite to EndNote since the software was out-of-date and no longer supported by the manufacturer. Therefore, the Commission's literature databases continue to be available via the GSMFC website. The IJF bibliographic collection represents all of the citations used in the last several FMPs and includes additional technical papers on a number of miscellaneous topics related to fisheries management in the Gulf. The database is searchable from the GSMFC website and provides keywords and complete abstracts when available. All reprints are housed electronically at the GSMFC office and copies are available upon request. In addition, the GSMFC is hosting the Gunter Library Reprint Collection of the Gulf Coast Research Lab which is also searchable through the webpage. The IJF staff is happy to provide electronic copies of any and all reprints housed in GSMFC, as requested.

FISHERIES INFORMATION NETWORK (FIN)

David M. Donaldson, Program Manager

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

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

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

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

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

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

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

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.

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, staff members from both FIN and the Atlantic Coastal Cooperative Statistics Program (ACCSP) continue to coordinate, ensuring that there is compatibility and comparability between the two regions.

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 2010 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, the 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 the FIN. Each type of activity is discussed below.

COMMITTEE ACTIVITIES

FIN Committee

The major FIN meeting was held in June 2010. The major issues discussed during this meeting included:

- Identification and continuation of tasks to be addressed in 2010 and instruction to Administrative and Geographic Subcommittees and the Commercial Technical, Data Collection Plan, Data Management, For-Hire, Outreach, Recreational Technical, Social/Economic and ad hoc work groups to either begin or continue work on these tasks;

- Development of the 2011 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 2010;

- Continued evaluation of adequacy of current marine commercial and recreational fisheries programs for the 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 2011;

- 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. Their activities included:

- The Marine Recreational Fisheries Statistics Survey data review meetings were held in February, July, and October 2010 to discuss the RDD and Intercept Surveys for the East coast and Gulf Region, discussion of 2011 Expenditure Survey, oil spill impacts, update on MRIP, site register issues, review of wave report fish tables and estimate tables, and review of Gulf States For-Hire Telephone Survey;

- The Gulf of Mexico Geographic Subcommittee met in March and October 2010 to discuss the status of biological sampling activities, the status of Commercial Vessel Information project, presentation of Gulf Fisheries One-Stop Shop (GFOSS) project, updates on MRIP, Louisiana and Florida Gulf of Mexico for-hire logbook projects, discussion of highly migratory species sampling, discussion of Gulf Council motion regarding recreational data collection and monitoring programs, review and approval of at-sea sampling protocols, status of metadata data entry, discussion of quota monitoring/trip ticket issues, discussion of economic activities, and discussion of fish tags related to recreational data collection activities;

- The Commercial and Recreational Technical Work Groups met (via conference call) in April 2010 to review and update the FIN QA/QC documentation;

- The FIN Data Collection Plan Work Group met (via conference call) in May 2010 to review 2009 and 2010 otolith and length data collection and processing activities, and develop recommendations for necessary lengths and otoliths for FIN priority species;

- The annual Otolith Processor Training Workshop was held in May 2010 to discuss gray triggerfish processing and ageing techniques, margin codes for gray triggerfish, vermilion snapper ageing issues, conduct otolith reading and review of FIN priority species, discuss the various reference sets, and storage of otolith issues;

- The FIN Committee met in June 2010 for its annual meeting. On the first day, a facilitated session was conducted to plan for future activities of FIN. On the second day, the Committee met to address a variety of important issues including the status of Atlantic Coastal Cooperative Statistics Program (ACCSP); FIN Data Management System (DMS) issues, preliminary results from facilitated session, preliminary results from economic inshore shrimp project, review and discussion of SEDAR recommendations document, discussion of MRIP HMS reports, integration of commercial and recreational databases not in FIN DMS, update on recreational data collection motion, and Ad Hoc Data Collection AP meeting from the Gulf Council, impacts of Magnuson-Stevens Act on biological sampling, update on Commercial Vessel Project, update on MRIP Gulf Logbook Pilot Project, review and approval of 2009 FIN Annual Report, impacts of recent oil spill in Northern Gulf of Mexico, presentation of Commercial IFQ System for grouper/tilefish, various subcommittee and work group reports, status of 2010 activities, review and approval of 2011 Operations Plan, and discussion of 2011 FIN funding priorities;

- A Greater Amberjack sectioning and ageing

workshop was held in August 2010 to discuss an overview of ageing techniques, preparing and embedding otoliths, sectioning and mounting otoliths, conducting a reading exercise, and calculating an average percent error (APE);

- The State/Federal Fisheries Management Committee met in August 2010 to determine the activities for inclusion in the 2011 FIN cooperative agreement;

- The Gulf of Mexico port samplers meeting was held in September 2010 to discuss various issues including the role of port agents in electronic dealer reporting, presentation of turtle strandings and rehabilitation, QA/QC protocols for TIP/FIN biological sampling activities, presentation of pelagic, reef fish and shrimp observer programs, update on grouper/tilefish IFQ program, proposed changes to TIP, presentation of processed products survey results, discussion of buoy drop and other fishing gear, presentation of landings to estimate Texas brown shrimp season, discussion of NOAA grant opportunities for fishing industry, and the effects of BP oil disaster on fishing activities;

- In addition, the Program Manager also attended the various Fisheries Information System (FIS), Marine Recreational Informational Program (MRIP), ACCSP, SEDAR data workshops and Gulf of Mexico Fishery Management Council meetings as a liaison for the FIN.

OPERATIONAL ACTIVITIES

- Coordination and Administration of the FIN Activities - This task provides for the coordination, planning, and administration of the 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 Louisiana, Mississippi, Alabama, and Florida (east and west coasts). The states also conducted weekly telephone calls to a 10% random sample of the Louisiana, Mississippi, Alabama, and Florida (east and west coasts) 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. This is a continuation of an activity from the previous year.

- 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. In 2010, four menhaden factories were active in the northern Gulf of Mexico at Moss Point, Mississippi, and Empire, Abbeville, and Cameron, Louisiana. About 40 purse-seine vessels fished for gulf menhaden in 2010. Menhaden biostatistical samples are acquired from the top of the fish

hold; individual specimens are measured for fork length, weighed to the nearest gram, and a patch of scales is taken for ageing; other data include date and location of catch and vessel name. Total purse-seine landings of gulf menhaden for reduction in 2009 were 379,727 metric tons. This is a continuation of an activity from the previous year.

- Development and Implementation of FIN Data Management System (DMS) - 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 Texas, 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 the FIN.

- Trip Ticket Program Implementation and Operation – This task provided for operations and further implementation of commercial trip ticket systems to census the commercial fisheries landings in the Gulf of Mexico. It provided funding to Texas, Louisiana and Alabama for the operations of trip ticket programs for all commercial species. In Mississippi, it provided for the operations of a commercial trip ticket program for oysters and finfish and continued implementation of a system for the other commercial species in that state. In addition, it provided funding to contract for implementation and operation of electronic reporting for the trip ticket systems as well as reporting of data for the quota monitoring and IFQ programs. This is a continuation of an activity from the previous year.

- Biological Sampling of Commercial and Recreational Catches - This task provided funding for collection of biological data from the recreational and commercial fisheries. These data are essential to accurately assessing the status of commercial and recreational species. For the commercial aspects, port samplers collected this information based on established guidelines. For the recreational side, samplers went to sites and collected the necessary biological data using a modified MRFSS method. This task provided funding for collection, processing, and analysis of these data. The primary target species include black drum, gag, gray snapper, gray triggerfish, greater amberjack, king mackerel, red drum, red grouper, red snapper, sheepshead, flounders (gulf & southern), spotted seatrout, striped mullet, and vermilion snapper. The secondary target species include Spanish mackerel, scamp, yellowtail snapper, cobia, black grouper, black sea bass, red porgy, snowy grouper, speckled hind, and Warsaw grouper. 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 2010 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. 2010. *2011 Operations Plan for Fisheries Information Network (FIN)*. No. 185 Gulf States Marine Fisheries Commission, Ocean Springs. 25 pp + appendix.

- FIN Committee. 2010. *Annual Report of the Fisheries Information Network for the Southeastern United States (FIN) January 1, 2009 - December 31, 2009*. No. 182 Gulf States Marine Fisheries Commission, Ocean Springs. 24 pp + appendices.

- A 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. Users can request access via the FIN DMS web site (www.gsmfc.org/data.html).

- NMFS provides a user-friendly data management system (DMS) for the MRFSS that is accessible via the web (www.st.nmfs.noaa.gov/st1/recreational/index.html).

- GSMFC has developed a home page that provides programmatic and operational information regarding the FIN.

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

ECONOMICS PROGRAM

Alexander L. Miller, Staff Economist and Program Coordinator

The Economics Program, formed in July 2008, continued to develop throughout 2010 in an effort to improve economic data collection and management of recreational and commercial fisheries throughout the Gulf of Mexico. The program is a cooperative partnership among Texas, Louisiana, Mississippi, Alabama, Florida, the Gulf States Marine Fisheries Commission (GSMFC), and NOAA's National Marine Fisheries Service (NOAA fisheries). The program monitors the economic performance of the fisheries of the Gulf of Mexico (GOM) and assesses the economic impacts of these fisheries on local and regional economies. In general, the activities of the economic program are divided into three main components: economic data collection, economic research and analysis, and economic outreach and dissemination.

Data Collection

In conjunction with the Fisheries Information Network's (FIN) Social/Economic Workgroup, the GSMFC coordinates, plans, and conducts specific economic data collection projects throughout its five member states. Economic data collection projects which were in progress in 2010 included the following: an economic survey of the

GOM inshore shrimp fleet, an economic survey of fishing related businesses in the GOM, and a marine angler expenditure survey for the GOM. Additionally, a marine recreational use survey was also under development in 2010. Results from these studies will aid in describing the economic performance as well as the economic impacts of these industries. More specifically, economic data and analysis will contribute to a better understanding of the economic contributions that these industries have on local and regional economies. It is the intent that the collection of dependable economic data will further maximize the economic benefits of fisheries resources, while reducing negative costs to fishing communities throughout the Gulf.

Inshore Shrimp Fleet

The Commission completed its first economic data collection project in 2010: a survey of the Gulf's inshore shrimp fleet. This survey is the first systematic, multi-state effort to analyze the economic performance of this commercial fishery and its contribution to the economy. It is intended to complement previous studies of commercial shrimping in federal waters in the Gulf conducted by NOAA Fisheries.

This study was conducted as a voluntary mail survey of resident commercial shrimpers who harvested shrimp from Texas, Louisiana, Mississippi, Alabama, and west Florida state waters in 2008. The survey, which received 579 responses for a raw response rate of 33%, gathered economic data related to revenues, harvesting expenditures, and fixed costs of the inshore shrimp fleet. The Commission collaborated with the Louisiana Department of Wildlife and Fisheries (LDWF) Socioeconomic Section in the implementation of the survey and the analysis of the results. The Commission and the LDWF also obtained the support and cooperation of NOAA Fisheries in the examination of the data set to ensure the internal validity and consistency with the data from the commercial shrimping fleet in federal waters of the Gulf.

Based on the initial findings, the average vessel used by respondents for shrimping in inshore waters was 35 feet long, made of fiberglass, and had a 282 horsepower diesel engine. The average vessel had an original purchase price of $43,845 and an estimated current market value of $45,798.

The average outstanding balance on loans related to shrimping vessels in 2008 was $5,081. (Only 19% of the respondents carried debt on their shrimping vessels.) The average net worth - the difference between asset value and outstanding debt - was $40,717.

Respondents took an average of 32 commercial shrimp harvesting trips in 2008 and spent an average of 1.7 days at sea per trip. Respondents reported spending an average of $200 per day for fuel, $11 per day for oil, $24 per day for ice, and $9 per day for salt.

Nearly half of the respondents reported hiring paid labor in 2008. Among those who hired laborers, average labor expenses were $11,592, and median labor expenses were $6,600.

Respondents reported spending an average of $9,500 on repairs and equipment, $6,725 on ordinary maintenance and replacement, and $2,775 on repairs related to the hurricanes of that year. Among the 49% of respondents who reported expenditures for repairs and equipment replacements as a result of Hurricanes Gustav and/or Ike, average estimated hurricane-related damages were $5,714.

A fairly small minority of inshore shrimpers reported having insurance or loans on their shrimping vessels. Average overhead expenditures in 2008 were $6,652.

The average net cash flow (cash inflow minus cash outflow) in 2008 was relatively low but positive. For a sizeable minority of the respondents, however, net cash flow was negative, indicating that cash outflows exceeded cash inflows for many shrimpers that year. It is highly likely that the economic performance in 2008 was atypical as a result of hurricanes and high fuel prices.

A presentation of the preliminary results was made at the Commission's 60th annual spring meeting in March in Orange Beach, Alabama; Louisiana State University's Center for Natural Resource Economics and Policy Meeting in May in New Orleans, Louisiana; and the June meeting of the Fisheries Information Network.

A final report of the results is currently being finalized and will be released in 2011. The final results will also include the estimated regional economic impacts of the industry, such as the number of jobs that the fleet contributes to the economy.

Fishing-related Businesses

The GSMFC further developed its commitment to collect economic data to determine the economic performance and economic impact of fishing related businesses in the Gulf throughout 2010.

Using data from the NMFS, an inventory was compiled for commercial seafood processors and dealers throughout the region. This information, as well as data from previous surveys throughout the GOM, provided an estimate of the number of processor and dealer firms. As the number of dealers far exceeds the number of processors, this survey will be conducted via on-site interviews for processors, with the goal of achieving a census. A subsequent survey packet for dealers will be distributed as a mail survey using a sample of the population.

An RFP document was developed to solicit proposals from qualified parties to collect economic data from commercial seafood processors. Individual RFP documents were composed for west Florida, Alabama, Mississippi, and Texas. An RFP was not sent to Louisiana, as the Louisiana Department of Wildlife and Fisheries had previously received funding from the GSMFC to complete this project. After a thorough review, the most cost effective and well justified proposals for each state were selected and funded. Sub-awards were developed and awarded to the University of Florida, the University of South Alabama, Mississippi State University, and Texas A&M University.

The seafood processor and dealer survey was the subject of several items at the Commission's annual spring meeting in Orange Beach, Alabama, on March 10, 2010. This included an afternoon session in which a draft of the survey instrument was discussed. A telephone conference call was held on April 27th, 2010, to discuss changes to the revised questionnaire. The survey instrument was revised with contributions from all subcontractors associated with the project. A subsequent conference call was held on June 1, 2010, in order to discuss alterations in the format and content of the survey instrument. The call also included

methods to enhance survey participation and how the response rate will likely be affected by the Deepwater Horizon oil disaster.

Throughout the summer and fall of 2010, the survey packet and survey instrument were field tested in Florida, Alabama, Mississippi, Louisiana, and Texas. The field testing exercise included the following procedure: 1) four to five processors were randomly selected in each state; 2) selected processors were called in order to introduce them to the survey and notify them that they would soon receive a survey packet; 3) the survey packet was mailed to the selected processors; 4) processors were subsequently called in order to setup a time to meet in-person; and 5) subcontractors met with as many of the selected processors as possible in order to walk them through the survey. Completed surveys were mailed to the Commission in order to synthesize the responses and improve the survey instrument. A meeting with the regional subcontractors was subsequently scheduled for March 2011 as part of the Commission's annual spring meeting in Houston, Texas in order to arrive on the final format of the survey instrument. Given delays and logistical concerns as a result of the Deepwater Horizon oil disaster, it is anticipated that the survey will be deployed and data from processors will be collected throughout 2011. An identical survey instrument will also be mailed to a sample of the dealer population in 2011.

A final report of the results will be compiled and presented once the final data are entered and analysis is conducted. All figures and estimates will be presented as industry totals and averages. In addition to analyzing the economic performance of the fishery, this study will also estimate the economic impacts of the industry on the local and regional economy using regional input-output impact models for commercial seafood processors and dealers.

Marine Angler Recreational Fishery

As part of a national initiative, the GSMFC and NOAA moved forward with the planning and budgeting process in 2010 in order to solicit saltwater anglers' expenditures on fishing trips and durable goods throughout the Gulf and Puerto Rico in 2011. These results will describe the expenditures and economic contributions associated with marine recreational angling.

The project will use the MRIP intercept for trip expenditures and a mail follow-up survey for equipment and durable expenditures in Puerto Rico, Florida, Louisiana, Mississippi, and Alabama. For Texas, the state license frame will be used in order to survey for trip, equipment, and durable expenditures via a mail survey.

Year 2010 largely saw the finalization of the survey materials and survey sampling design in association with the NMFS. Budgets from the MRIP states were solicited and reviewed in order to estimate the cost to collect expenditure data from marine anglers throughout the Gulf and Puerto Rico. A statement of work and sub-award were developed and awarded to Puerto Rico, Florida, Alabama, Mississippi, and Louisiana in order to conduct an economic add-on survey to the MRIP intercept for trip expenditures. A statement of work and contract was also developed and awarded to ICF Macro in order to conduct a mail follow-up survey for equipment and durable expenditures in Puerto Rico, Florida, Alabama, Mississippi, and Louisiana. ICF Macro was also awarded a contract to conduct a mail survey in Texas in order to collect trip, equipment, and durable expenditures.

Data collection will occur from January 2011 to December 2011, with the analysis conducted from January 2012 to December 2012. This project will contribute to the larger national final report entitled, "The Economic Contribution of Marine Angler Expenditures in the United States, 2011."

Marine Recreational Use

Economic impacts from recreation to local and regional economies extend from other types of marine recreation besides marine angling. Such activities might include scenic landscape viewing, wildlife watching, kayaking, scuba diving, and boating. Determination of the economic impacts that these activities have on the economy is an important aspect of marine recreation that needs additional attention.

Planning and discussion for the development of a marine recreational use survey continued to take place in 2010. The GSMFC, in partnership with NOAA fisheries, plans to collect participation, effort, and expenditures related to ocean recreation activities, with the primary focus on non-consumptive ocean uses. The project plans to sample the general public using a survey panel. The survey will be conducted through monthly waves with the sample rotating in and out of each month. Each individual will only be sampled a defined number of times. Selected individuals will be notified in advance so that they will be able to keep track of their activities and expenditures.

Throughout 2010, GSMFC worked with NOAA fisheries concerning the further development of the survey instrument and the administration of focus groups. Two focus groups were conducted for the southeast and gulf regions in order to test and further develop the survey instrument. Focus groups were held in Charleston, South Carolina on April 28th and 29th as well as in New Orleans, Louisiana on May 25th and 26th.

This survey is tentatively planned to be conducted in 2011. Outcomes of the project will include a database and a report.

Research and Analysis

Analysis and research investigations allow for a better understanding of the economic performance and impact of Gulf fisheries. In 2010, the research and analysis component of the economics program consisted of an impact analysis initiative for Gulf fishing industries and the further development of a study of the influence that macroeconomic conditions (i.e. fuel prices) have on marine recreational angler effort throughout the Gulf.

Macroeconomic Conditions and Marine Recreational Angler Effort

The purpose of this project is to increase the understanding of the impact that macroeconomic conditions, such as fuel prices, have on marine recreational angler effort (i.e. number of trips) and the area fished (e.g. state or federal waters). Furthermore, it is sometimes difficult to understand and explain why changes in marine recreational effort occur or do not occur. Quantifying how anglers choose to participate or fish in specific areas as macroeconomic factors change may lead to better fisheries management. For example, knowing that anglers choose to fish inshore or participate in an inexpensive mode of fishing as fuel prices increase may allow for fisheries to be better managed.

The analysis for this project was largely completed throughout 2009 and 2010. The analysis determined that higher gasoline prices and poor economic conditions lead to a reduction in trips in federal and state waters but an increase in trips to inland estuaries by a similar magnitude. A manuscript for this project was finalized in 2010 and submitted to an academic journal.

Impact Analysis

While raw economic data allows for descriptive statistics and averages, economic impact analysis (e.g. input/output modeling) for a particular fishery can help us to further understand the economic contribution that a fishery has to local and regional economies throughout the Gulf. For example, impact analysis can be used to describe taxes, employment, income, value-added, and sales generated from a particular Gulf fishery.

As it is the goal to use impact analysis to better understand the economic contribution from the specific fishing industries studied within the economic data collection component of the program, additional preparation continued in 2010. An initial economic impact model for the Gulf shrimp fishery was developed and enhanced throughout 2010. The program coordinator also consulted with experts to ensure that the current data collection questions (e.g. from the processor and dealer economic survey) were well-suited to be used to conduct economic impact analysis.

Outreach and Dissemination

The third component of the economic program is outreach and dissemination. The objective of this branch of the program is to present the information collected and analyzed within the data collection and research and analysis components of the program. Additionally, this component

of the program involves the organization of an annual or biennial meeting for economists who are actively engaged in fisheries economic projects and activities throughout the Gulf.

Fisheries Economic Information Portals

In order for there to be a location where stakeholders of fisheries resources can access fisheries economic data, analysis, and literature, the development of fisheries economic information portals further developed in 2010.

The GSMFC created a beta version of an Interactive Fisheries Economic Impacts Tool in 2010. This prototype was later used as the GSMFC provided assistance with the development of the national Interactive Fisheries Economic Impacts Tool. The information portal is a web-based tool now located at the NOAA Fisheries Office of Science and Technology website. Data from the current economic data collection projects in the Gulf will be used to update the impact results presented through this interactive tool.

The GSMFC also moved forward with the development of a portal for the Gulf which will tentatively contain fisheries economic literature resources, final reports, and published literature for a variety of different types of fisheries economic information from throughout the Gulf. In addition to literature resources, the portal will also tentatively contain fisheries economic data/ impacts for the Gulf through an online interactive user defined dashboard.

Gulf States Fisheries Economics Workshop

The Gulf States Fisheries Economic Workshop is an initiative of the economic program that is aimed at promoting communication, coordination, and professional development among fisheries economists throughout the Gulf of Mexico. The workshop provides an opportunity to share data collections and research projects and to discuss the future direction of economic data collections within the region. During 2010, the second Gulf States Fisheries Economics Workshop was held in conjunction with the GSMFC annual spring meeting in Orange Beach, Alabama. Approximately 19 fisheries economists from throughout the region participated in this workshop. Workshop presenters and attendees discussed roughly 20 different recreational and commercial projects. It is the intention that this meeting will be held on an annual or biennial basis during the spring meeting of the GSMFC.

ALABAMA MARINE RESOURCES DIVISION

Vernon Minton & Chris Blankenship, Directors

The Marine Resources Division (MRD) is responsible for the management of Alabama's marine fisheries resources through research and enforcement programs. Two division facilities supported an average of 62 employees of the Administrative, Enforcement, and Fisheries Sections during the 2010 fiscal year.

Significant Accomplishments

The U.S. Department of Commerce appropriations budget for the 2010 fiscal year contained $15 million earmarked for cooperative enforcement initiatives between NOAA law enforcement and state fisheries law enforcement entities. The Marine Resources Division and NOAA Enforcement entered into a joint enforcement agreement pursuant to the initiative. As part of the agreement, federal dollars are dedicated to increase fisheries law enforcement efforts and compliance with federal fishery regulations along coastal Alabama and the Gulf of Mexico. Fisheries resources are cooperatively protected, managed, and conserved by state and federal governments. The MRD enforcement section received $499,198 as part of the agreement. The money was used to purchase eight outboard motors, two vehicles and surveillance equipment that will be strategically located in coastal Alabama. Additionally, it provided funding to increase patrol hours for MRD officers.

Enforcement officers conducted 18,294 hours of boat and shore patrol, 8,753 boat checks, 1,544 seafood shop inspections, 19,911 recreational fisherman checks, 6,014 commercial fishermen checks, and issued 2,202 citations and warnings for illegal activities. A total of 15,521 hours was spent on administrative duties, court attendance, training, and equipment maintenance. Officers worked 6,696 hours with the National Marine Fisheries Services interjurisdictional fisheries enforcement program.

Enforcement officers continued to improve and expand the Coastwatch Program, established for the training of 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, 261 citizens have been trained at 37 training sessions held in Mobile, Baldwin, and Jefferson counties. The response to the program continues to be very positive.

Officers attended training courses on boat handling, criminal investigation, computer forensics, criminal law update, environmental crimes enforcement, interview and interrogation, suicide terrorism, 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.

The Marine Resources Enforcement Section worked with the other Divisions in our Department to enhance and expand the Conservation Officer Operations Reporting System (COORS). The COORS system has greatly reduced the amount of time the officers spent performing needed administrative duties. The officers' reports are completed and reviewed online; this data is calculated to allow for better analytics of the enforcement activities. In 2010 the Conservation Operations Reporting on Numerous Activities (CORONA) system was created to expand the system to the administrative and fisheries sections of the Division. A fleet management module of the COORS/CORONA program will allow for real time maintenance cost analysis and tabulation to allow for more efficient maintenance of equipment. Subsistence claims are sent directly to accounting to save on processing costs. The COORS system was implemented beginning the week of

September 26, 2009 and the CORONA system became operational on September 25, 2010.

The Enforcement Section has continued the installation of cameras for the Marine Resources Coastal Remote Monitoring System. Full implementation of this system will provide up to 30 high resolution cameras at different locations throughout coastal Alabama areas. The video is available through a web-based portal and will be accessible to officers in the field via a wireless internet connection. Not only are the officers able to access the video, they are able to manipulate the camera through a web interface. The video is being stored for up to three weeks on secure servers and is time and date stamped for use as evidence. The sensors include closed-circuit television, thermal, and infrared cameras.

The 2010 edition of the popular Alabama Marine Information Calendar was produced and distributed. In addition, a calendar depicting conservation related artwork by coastal 4th 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 eleventh year of a cooperative project with Auburn University at Claude Peteet Mariculture Center (CPMC) has resulted in additional refinement of techniques for rearing both bait and food shrimp in ponds. These will be used to enhance the production of shrimp on shrimp farms in west-central Alabama.

During the year, the Fisheries Section collected 714 fisheries assessment samples. This data is utilized to afford managers the opportunity to review the populations of the recreational and commercial important species and of lower trophic level species to detect any changes before they affect the overall health of the ecosystem. A total of 12 habitat assessments was performed, and 4,220 fishermen were interviewed during creel surveys.

The success of the electronic trip ticket computer program continues to grow. Currently, 30 Alabama seafood dealers are actively using this program. These dealers reported over 72% of yearly Alabama landings. 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, MRD processed and submitted trip ticket data from 7,647 commercial trips, reporting 14.6 million pounds of seafood with a dockside value of $23.4 million. A significant reduction in landings was observed due to the impacts of the Deepwater Horizon oil spill.

During FY 2010, MRD staff participated in two large outreach events: the four-day Mobile Boat Show, and the one-day Conservation Expo/Bird Festival in Fairhope. These events were conducted 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 the opportunity to interact with living marine life and learn about these animals which are commonly found in Alabama's waters. Literature concerning seafood rules and regulations, and calendars were distributed. Children enjoyed the opportunity to complete activity books and use rub plates depicting various forms of aquatic life found within Alabama's waters. MRD staff also participated in a 7th grade 'Day at the Park' at the Gulf State Park, where biologists talked with kids about fish habitats, the dynamics of the Lake Shelby/Little Lagoon system, and identified fish species found there.

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

MRD continued administration of the Offshore Artificial Reef Program during 2010. This program allows private reef builders a chance to deploy inspected material in United States Army Corps of

Engineers permitted offshore areas resulting in the creation of fish habitat. Eight permits were issued during the year, containing 192 individual reefs. Two Eco-reefs were donated to the State and were added to other artificial reef structure near the new Gulf State Park pier to enhance fishing around this structure.

MRD coordinated the relocation of over six million pounds of oysters and cultch material from reclassified restricted waters in upper Mobile Bay, as classified by the Department of Public Health to a newly constructed reef in lower Mobile. Eligible Alabama commercial oyster fishermen were extensively utilized during this project.

MRD created a data entry program, AMRD Sampling Application (ASA), in order to increase the efficiency of recording, editing, and proofreading data generated from the Fisheries Assessment and Monitoring Program (FAMP). FAMP protocols have been restructured in order to generate data that is consistent with the SEAMAP groundfish program.

During FY2010, the Alabama Legislature passed MRD's Oyster Management Bill. This bill authorizes the implementation of oyster management stations at which point harvest data will be collected directly at the time of harvest thus increasing MRD's ability to manage Alabama's oyster resources. The bill also changed the tolerance for undersized oysters, standardized the information required on the harvest tags, allowed an increase in the cost of the tags to include the cost of printing, expanded the use of dredges, removed the ability for private lease holders and others to take seed oysters from the public reefs, expanded our oversight of the marking of private leases, created a shell fee to pay for planting and other oyster management costs, and raised the fines for violations.

Coastal Impact Assistance Program (CIAP) funds have been awarded to MRD for much needed renovation and construction activities within the Division. Plans include the construction of a new laboratory and office facility at Claude Peteet Mariculture Center (Gulf Shores) and the renovation of boat basins located at Divisional offices in Gulf Shores and on Dauphin Island.

The Division provided financial assistance to the City of Daphne to renovate a boat ramp on the Eastern Shore to improve boating access. This renovation incorporated an elevated roadway to access the ramp. This unique design is believed to circumvent the sedimentation problem that occurs along the immediate shoreline which hindered public use of the previous ramp.

The issue of permitting of Liquid Natural Gas (LNG) facilities offshore from Alabama remained an issue in FY2010. In September 2010, Governor Bob Riley approved the plan for TORP's Bienville Offshore Energy Terminal (BOET). The LNG terminal will be located 63 miles south of Alabama and will utilize a closed-loop re-gasification system.

Severe drought conditions and the proliferation of key predators during recent years, coupled with damages caused by 2004 and 2005 storm events, have decimated Alabama's oyster reefs. During 2009, MRD closed all public reefs to the harvest of oysters until such time that the reefs can sustain commercial harvest. MRD continues to work with fisheries participants to rebuild Alabama's oyster reefs through monitoring and cultch planting. These efforts will be increased due to the passing and implementation of MRD's Oyster Management Bill.

MRD contributed significant personnel time and resources from the Fisheries and Enforcement Sections to the BP Deepwater Horizon (DWH) oil spill response. Numerous staff members were assigned to the Mobile Unified Incident Command (UIC) post to assist in Alabama's coordinated response to the DWH incident. MRD responded to fish kills, turtle/mammal strandings, and surface oil reported through the DWH call center. Reports were frequent due to protocols of response workers and the vigilance of the public. Alabama began closing state waters to commercial and recreational fishing as a precautionary measure due to the presence of oil on June 1. By June 10, 2010, the final closure was implemented resulting in a total closure area

of approximately 351 square miles, representing around 45% of Alabama's marine/coastal waters. From the initial date of closure to the final date for reopening (with exception to Gulf waters for shrimp), a total of 81 days had elapsed. MRD's Fisheries Section collected baseline, monitoring and reopening tissue samples for finfish, oysters, crabs, and shrimp. Samples were transported to the U.S. Food and Drug Administration (FDA) and NOAA for chemical and sensory testing to ensure the safety of Alabama's seafood and allowing for the reopening of closed waters. MRD Enforcement Officers operated continuous patrols to enforce area closures and conducted daily mapping surveys of deployed booms. Boom coordinates were relayed daily to UIC for use in booming strategy and maintenance. The Fisheries Section has been working closely with Natural Resource Disaster Assessment (NRDA) process especially in the development of the oyster assessment plan.

Future Plans

The Division plans to continue development of the inshore artificial reef system particularly in Baldwin County. As donated material has been greatly reduced in coastal areas of Alabama due to the economic downturn, MRD plans to purchase appropriate material and enhance identified reef sites. MRD will investigate the possibility of receiving permit(s) for near shore artificial reef zones. These areas, if permitted by the U.S. Army Corps of Engineers, would provide unique fishing opportunities for Alabama's coastal anglers. Various user groups will be contacted prior to submission of a permit for this activity to maximize success.

Coastal boating access continues to be a concern for MRD. Maintenance to and renovations of existing boat ramps will continue to be a priority of the Division. MRD will search for additional properties and/or cooperative agreements that will allow for the expansion of boating access sites in coastal Alabama.

MRD will work with the Department's Engineering Section, the State Lands Division, and outside contractors to develop plans for the construction and/or renovation projects pertaining to key structures located at the CPMC (Gulf Shores) and Dauphin Island facilities. These projects will consist of the construction of a new multifunctional laboratory and office complex at CPMC, renovation of the boat basins at CPMC and Dauphin Island, and upgrades to Enforcement boat docks at Dauphin Island; funding will be provided through the Coastal Impact Assessment Program (CIAP). It is anticipated that the planning and design phase will be completed and a bid will be awarded for construction by the end of FY2011.

MRD will continue to work with other state (Alabama and Gulf States) and federal agencies in the assessment, monitoring, and rehabilitation efforts needed in response to the DWH oil spill. The Fisheries Section will work closely with the NRDA process to implement fisheries assessment and monitoring plans. MRD will implement a Tissue Testing, Closed Area Monitoring, and Seafood Promotion Plan, in conjunction with other State agencies, to address public concerns about the safety of Alabama's seafood. Under this plan, funds obtained from BP will be used to conduct chemical analyses of Alabama seafoods on a monthly basis to test for contamination in order to restore consumer confidence, as well as, promote Alabama's marine resources. In addition, MRD will work with the Gulf States Marine Fisheries Commission and other Gulf States in the implementation of a federally funded Gulf of Mexico Seafood Marketing and Sustainability Program designed to promote Gulf seafood as a whole.

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 and Border Protection agents. Marine Resources Enforcement Officers cooperate extensively with

these agencies, the United States Coast Guard, 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 currently seventeen enforcement officers in the section (ten stationed in Mobile County and six stationed in Baldwin County), two laborers, and the Chief Enforcement Officer stationed at the Dauphin Island headquarters.

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 Gulf-wide strategic fisheries enforcement plan.

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

Continue to develop and expand the coast-wide remote monitoring system and technology upgrades to enhance enforcement monitoring, deployment of enforcement manpower, and biological fishing effort research.

FISHERIES SECTION

The activities of the Fisheries Section are directed toward management of commercial and recreational fisheries in Alabama's marine and estuarine waters. These activities involve cooperative efforts with the National Marine Fisheries Service (NMFS) in near shore 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, 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. 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.

Fisheries facilities consist of the CPMC in Gulf Shores and the MRD Laboratory on Dauphin Island. Positions consisted of one Biologist V, two Biologist IV's, two Biologist III's, four Biologist II's, one Biologist I, four Senior Biologist Aides, nineteen Biologist Aides, and two temporary laborers.

Fishery Section Programs

Wallop/Breaux: Wallop/Breaux funds are administered through the U. S. Fish and Wildlife Service. Funds from this source were directed toward a creel survey of Alabama's saltwater recreational anglers, production of the 2010 edition of the popular Alabama Marine Information Calendar, children's coastal conservation art calendar, production of the kids' coloring book, maintenance of equipment and facilities in Gulf Shores and Dauphin Island, management of the public artificial fishing reef permit system in the Gulf of Mexico off Alabama, assisting individuals in designing artificial reefs, conducting mariculture research on marine species, maintaining and enhancing boat ramps for boating access, financing research of the ecology of artificial reefs and effects

of reef designs with respect to ecology, and the sampling of coastal Alabama fishes to determine stock status.

Fisheries Assessment and Monitoring Program (FAMP): MRD continues to collect legacy data through the FAMP. This program, implemented in 1981, provides a continuous database of fish and invertebrates captured through independent fishery sampling techniques. This sampling program allows MRD to monitor trends in fishes' and invertebrates' abundance which are not associated with commercial or recreational fishermen.

Adult Finfish Sampling Program: MRD continues a fishery independent gillnet sampling program. The objective is to gather data on adult fish to be used in the management of important species. Sampling will be conducted through the use of two gillnet configurations and a stratified, random design. A total of 192 net sets were conducted, collecting 4,494 finfish representing eight freshwater and 42 saltwater species.

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

Southeast Area Monitoring and Assessment Program (SEAMAP): Funds from this program are administered by the Department of Commerce (NOAA/NMFS) and are utilized in Alabama for the development of a long-term fishery-independent database of recreationally and commercially important marine and estuarine fishery stocks. This project provides funds to assist in management of the Alabama shrimp fishery, as well as, to evaluate spawning success and juvenile survival for important recreational and commercial species. In FY 2010, 19 offshore, 40' trawl samples and six near shore and three offshore ichthyoplankton samples were collected. Ichthyoplankton samples have incorporated bongo nets at all SEAMAP stations. Routine bi-monthly inshore sampling was conducted in state waters resulting in the collection of 155 trawl, 33 seine, and 42 beam plankton trawl samples. MRD created a data entry program, Alabama MRD Sampling Application (ASA), in order to increase the efficiency of recording and quality checking data collected from inshore groundfish trawls, seines, and plankton trawls. This effort will make MRDs and SEAMAP protocols more consistent.

MRD received approval to use additional funding for a pilot vertical longline survey off Alabama out to the continental shelf. Six cruises were completed and coordination with the Gulf States Marine Fisheries Commission's SEAMAP subcommittee will continue to resolve gear and design issues.

Inshore Roving Creel Survey: The survey uses non-uniform probability roving creel sampling methods 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 anglers' catch is helpful for determining health of fish stocks. A total of 1,783 fishermen were interviewed for this survey in 2010.

The Marine Recreational Fisheries Statistics Survey (MRFSS): Funding for this project is provided through a subgrant from the Gulf States Marine Fisheries Commission. NMFS utilizes this survey to gather trip level catch and effort information for shore, charter, and private boat anglers throughout the United States. Data generated from the survey is used by fisheries managers throughout its scope of coverage. MRD has a subcontract to conduct the portion of MRFSS which collects data from anglers after they have completed their fishing trips and interviews charter boat captains for effort. Division personnel completed a total of 2,437 angler interviews during FY 2010 (791 in shore mode, 401 in charter mode, and 1,245 in private/rental boat mode). Phone calls to captains/owners in the charter boat industry were increased from 10% to 40% of the active fleet for one year

to increase the precision of effort estimates in the wake of the Deepwater Horizon oil spill.

Otolith Sampling Program: Funding for this project is provided through a subgrant from the Gulf States Marine Fisheries Commission (GSMFC). MRD continued collection of otoliths (ear stones) from species given high priority for sampling including gray triggerfish, southern flounder, red snapper, greater amberjack, and king mackerel caught by commercial and recreational fishermen. Otoliths are used to age fish, which is important information used to determine the health of fish stocks. A total of 1,567 fish were sampled for this program in 2010.

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 submitted to the GSMFC and will ultimately be supplied to NOAA Fisheries.

Emergency Disaster Recovery Program: In recent years, MRD worked with legislators, the Commissioner of the Department of Conservation and Natural Resources, and neighboring state agencies to secure two grants totaling roughly $44 million in NOAA fishery recovery funds. The monies are being used to clean up and restore oyster and shrimp grounds affected by recent hurricanes and to monitor the recovery of associated fisheries.

During March 2010, MRD, working with local seafood organizations and hundreds of oystermen, was able to move over six million pounds from upper Mobile Bay to the Relay Reef on the western shore in the middle of Mobile Bay. Approximately, 1.65 million dollars was spent on the project with a projected initial harvest estimated at over a half million dollars. The project itself provided temporary employment while oyster resources continue to recover.

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 research projects will continue with Auburn University, the Dauphin Island Sea Lab, and the University of South Alabama. This effort will be enhanced by the construction of a new mariculture facility at CPMC.

Cooperative projects will continue with Auburn University, the Dauphin Island Sea Lab, and the University of South Alabama to investigate artificial reef benefits and red snapper production enhancement. MRD will continue to construct inshore and offshore artificial reefs as materials and funding allow. Cooperative efforts with groups such as the Saltwater Series Tournament and the Mobile County Wildlife Association will maximize available resources.

Monthly inshore assessment and monitoring work will continue in order to provide a more comprehensive depiction of Alabama's marine waters and resources.

Continuation of the MRFSS is planned in Alabama to include creels of anglers on charter boats, private boats, and shorelines and to continue the For-Hire Telephone Survey to better define effort within the charter fishery.

MRD will initiate a discard survey to more accurately depict species and size ranges that are thrown back. This information is essential for improved assessments of offshore species.

Collection of Alabama commercial seafood landings data, via Alabama's Trip Ticket Program and the collection of commercial biological fishery-dependent data, will continue.

Rehabilitation of Alabama's oyster reefs, decimated by predation and recent drought and storm events, will continue. As part of the rebuilding process, MRD will implement its oyster management plan with assistance from Alabama's oyster community. MRD will purchase a barge to relay and plant oysters/cultch. Additionally, the barge will be used for assessment and a possible management station. This process is anticipated to achieve significant results.

MRD will play a significant role in the damage assessment and recovery process of Alabama's marine resources in response to the DWH oil spill. MRD will continue to participate in NRDA activities and will implement a seafood testing and marketing program.

FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION
Nick Wiley, 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, retrieval of lost and abandoned spiny lobster, stone crab and blue crab traps, and (8) issuance of Special Activity Permits. Highlights of staff efforts in 2010 [i.e., state fiscal year 2009/2010] are summarized below.

The Division hosted a series of conference calls to keep marine fisheries stakeholders informed of the status of the Deepwater Horizon oil spill response efforts. The spill occurred in late April 2010; the calls began on May 3. Initially, calls were held daily but soon reduced to three times per week and then, in late June, to twice weekly. The last conference call was held on August 19. Participants included legislators, congressional representatives, state and federal agency representatives, and representatives of commercial and recreational fishing organizations as well as individual fishers/anglers. Division staff also participated in conference calls hosted by NOAA fisheries, Gulf States Marine Fisheries Commission, the FDA, and FWRI for updates on interagency response efforts. Staff also represented FWC Marine Fisheries at the state Emergency Operations Center.

MARINE FISHERIES MANAGEMENT & POLICY DEVELOPMENT SECTION

The 2010 Florida Legislature repealed the $7.50 fee established by the 2009 Legislature for a resident recreational saltwater shoreline fishing license. The license is still required and the $1.50 administrative fee is still assessed to obtain the license. The Legislature established this license so Florida anglers would be exempt from the federal angler registration requirement that became effective January 1, 2010. The fee was repealed this year to give shoreline anglers some economic relief.

During state fiscal year 2009/2010, the Florida Fish and Wildlife Conservation Commission (FWC) approved a number of amendments to marine fisheries rules contained in Chapter 68B of the Florida Administrative Code.

Amendments were made to the commercial ballyhoo fishery to provide harvesters more flexibility by allowing transfer of lampara/ballyhoo net endorsements to other harvesters. Additionally, a limit of two endorsements per entity was established and leasing of the endorsement was prohibited.

Rules regulating the bonefish fishery were modified to apply to all species of bonefish that may occur in Florida waters (not just A*lbula vulpes),* to require bonefish to be landed in whole condition, *and to* extend Florida's management of bonefish into adjacent federal waters as allowed by the Magnuson-Stevens Fishery Conservation and Management Act.

The FWC revised the spiny lobster commercial effort management program by extending the moratorium on issuing more endorsements for the commercial harvest of lobsters by diving. A five-year moratorium on issuing new endorsements was established to prevent the fishery from growing when the endorsement program was created. This moratorium was recently extended for another five years to allow additional time to comprehensively evaluate the fishery.

The FWC allowed the harvest of lionfish in the John Pennekamp Coral Reef State Park as requested by the park. The harvest of lionfish is now allowed

statewide.

The commercial oyster industry was affected this year by a mandate from the federal government for public health purposes. In response to this mandate, the Florida Department of Agriculture and Consumer Services implemented a rule that requires oyster harvesters to have their catch to the processors earlier in the day than previously required. In response to this new rule, the FWC allowed oyster tongs to be stored aboard oyster vessels before dawn, as long as the vessels are not over oyster beds; thereby allowing harvesters to leave the docks before sunrise to get to the oyster beds by the time harvesting could begin.

Weakfish rules were implemented on Florida's northeast coast to be consistent with the Atlantic States Marine Fisheries Commission's (ASMFC) Weakfish Management Plan. In parts of Nassau County (NE Florida) a one-fish recreational bag limit and a 100 lb commercial trip limit were implemented.

Amendments were also made to the shark rules in response to the ASMFC's Fishery Management Plan for Atlantic Coastal Sharks. The harvest of sandbar, silky, and Caribbean sharpnose sharks was prohibited; a minimum size limit of 54" was established for all sharks except Atlantic sharpnose, blacknose, bonnethead, finetooth, and blacktip sharks; removal of heads and tails at sea was prohibited; and hook- and-line was made the only legal gear to harvest sharks in Florida state waters. In addition to the amendments for consistency with ASMFC's shark plan, the FWC prohibited all harvest of lemon sharks from state waters of Florida due to this species' susceptibility to harvest off Florida's coasts.

FWC's swordfish, shrimp and reef fish rules were amended to be consistent with federal regulations for Gulf of Mexico and South Atlantic waters. For swordfish, the recreational swordfish vessel limit was increased from three to four fish; the individual limit of one swordfish per person was retained, except for captain and crew of for-hire vessel; the vessel limits for for-hire vessels was increased to 15; the 33 lb weight requirement for swordfish was eliminated due to the difficulty of reliably measuring a swordfish at sea, and minimum length requirements were retained.

The FWC amended the rules for bycatch reduction devices (BRD) and turtle excluder devices (TED) in the shrimp fishery to be consistent with current federal requirements and incorporated language that will automatically allow future federally approved BRDs and TEDs in state waters of Florida. However, the Florida Finfish Excluder device, a BRD, will continue to be allowed in state waters even if prohibited in federal waters due to restrictions on net size in Florida waters.

For reef fish, bag limits for Atlantic grouper were amended to be consistent with new regulations in South Atlantic federal waters. More specifically, a three fish per person aggregate daily recreational bag limit for all grouper in Atlantic and Monroe County state waters was created. Within the aggregate, anglers may only keep one gag or black grouper combined and the captain and crew on for-hire vessels were prohibited from retaining any species in the aggregate bag limit. Additionally, the harvest of shallow-water groupers (including gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, and tiger grouper) was prohibited from January 1 through April 30 in Atlantic and Monroe County state waters. De-hooking tools were also required to be aboard all vessels harvesting snappers and groupers.

In Gulf of Mexico waters, the recreational red snapper fishing season in state waters was set at June 1 through July 23.

In early 2010, the FWC issued an Executive Order to suspend the harvest of snook, bonefish, and tarpon in response to the extreme weather event that caused a widespread cold kill in south Florida. The FWC also issued an Executive Order allowing possession of fish that died as a result of the cold weather in excess of any bag limit to facilitate beach and bay cleanup efforts.

The FWC implemented 18 Executive Orders in response to the Deepwater Horizon Oil Spill. These Executive Orders included area closures and openings off Escambia County (Pensacola), a temporary extension of commercial saltwater products fishing license expiration date, and earlier openings or extended fishing seasons for specified fisheries.

ARTIFICIAL REEF PROGRAM

FWC artificial reef program staff working with other state, county, and federal personnel completed the document "Guidelines and Management Practices for Artificial Reef Siting, Usage, Construction and Anchoring in Southeast Florida." This project was one of the local action strategies of the Southeast Florida Coral Reef Initiative managed through the Florida Department of Environmental Protection. The online version can be accessed at: http://www.dep.state.fl.us/coastal/programs/coral/reports/MICCI/MICCI_18_19.pdf.

In FY 2009/2010, $400,000 in Sport Fish Restoration funds plus $133,333 in state matching funds were allocated to implementation of one large artificial reef construction project on the Florida Gulf Coast. This project is the Phase II construction effort of a larger project being conducted in partnership with the University of Florida (Dr. William Lindberg, principle investigator). The objective is to see if placement of reefs seaward of important gag grouper seagrass habitat in areas without well developed hard bottom will increase survivorship and fitness of young-of-the year gags moving seaward from their nursery areas. Seaward of the planned Phase II deployment is a line of 44 cube "sentinel" or evaluation reefs deployed four years earlier in about 18.3 m during Phase I of the project in order to collect baseline information on gag grouper numbers and usage at the evaluation reef sites.

The project, scheduled for the spring-summer of 2010, involved deployment of 1800 concrete 89 cm square cubes with a 61 cm diameter hole through the center. The cubes were to be deployed in groups of four to create 450 four-cube patch reefs, with each reef randomly placed and separated from its nearest neighbor by 200 or more meters within a large area (120 sq. km, Steinhatchee Fisheries Management Area) off the Florida Big Bend in 12-15 m of water. Changes in sizes and numbers of gag grouper on Phase 1 reefs in response to Phase II construction of inshore patch reefs will be monitored by the University of Florida. The widely spaced (1-1.5 km apart) Phase 1 reefs have served as fishery independent monitoring sites for gag grouper assessments for the past four years.

The April 20, 2010 explosion, fire, collapse and subsequent sinking off Louisiana on April 22nd of Transocean's MS 252 Deepwater Horizon drilling platform leased by British Petroleum (BP) resulted in diversion of resources away from artificial reef construction and monitoring work in the Gulf of Mexico. The primary contractor for the Steinhatchee Fisheries Management Area - Phase II project was hired by BP to transport and recover oil booms in Alabama. FWC artificial reef personnel were diverted to represent the Division of Marine Fisheries at the State Emergency Operation Center, serve on a seafood safety working group, interact with concerned stakeholders, and assist with aerial mapping of oil product along the NW Florida coast. As a result, the Steinhatchee Fisheries Management Area - Phase II reef construction project has been delayed until the 2010-2011 Fiscal Year.

State saltwater fishing license revenues funded one additional construction project and four monitoring projects during 2009-2010. The construction project was a $60,000 grant to Palm Beach County (SE Florida), which the County matched with an additional $74,897, to build a new reef off Jupiter Inlet with 724 tons (three barge loads) of limestone boulders placed as a single reef in 35' of water (cost $186.32/ton).

With reference to the monitoring projects:

1. The Jacksonville Reef Research Team was funded to conduct 12 relative abundance fish censuses and two mapping events on two local reefs (sunken tug and concrete culverts) off Duval County (NE Florida). Six fish counts and the two mapping events were completed with the remaining monitoring continuing into the 2010-2011 fiscal year.

2. The National Coral Reef Institute (NCRI) at NOVA University received a grant to study 100 low relief cement product experimental reef modules (about 51 cm high by 76 cm diameter), in 10.7 m water off Fort Lauderdale (SE Florida) intended to serve as juvenile fish habitat. An initial first year report on fish and invertebrate colonization of this reef system is expected by December 2010.

3. The Reef Environmental Education Foundation (REEF) was funded to continue conducting fish count surveys on the Vandenberg Reef and seven surrounding natural and artificial reefs. During this fiscal year, REEF conducted fish surveys in July and November of 2009, March 2010, and July 2010. They will continue with annual summer surveys in 2011 and 2012. By July 1, 2010, REEF had documented cumulatively 186 different reef fish species on the Vandenberg Reef.

4. The fourth monitoring project was a continuation of sampling legal-size recreationally-targeted reef fish (red snapper, grey triggerfish, red and whitebone porgy, vermilion snapper, grouper) for PCB analysis (using skin-on lateral muscle tissue fillets) in compliance with requirements of the EPA risk-based PCB disposal permit for the ex-*U.S.S. Oriskany (CVA-34*) sunk as an artificial reef in 212 feet of water 22.5 nm off Pensacola Pass on May 17, 2006. The PCB analysis will be used to evaluate the pre-deployment, risk-based PCB modeling results that concluded the fish caught on the Oriskany Reef would not pose a human health threat when consumed. Two fish sampling trips (sampling rounds five and six) were conducted during the fiscal year, one on November 18, 2009 (30 fish collected) and the other on April 27, 2010 (35 fish collected). Red Snapper and Vermilion snapper dominated both sampling events and, in both events, mean PCB values of both species were below the EPA Tier 1 monitoring screening level of 20 parts per billion total PCBs (wet skin-on tissue weight) and the Florida Department of Health screening level of 50 parts per billion. Three of 30 individual fish from the November 2009 sampling fish exceeded FDOH and EPA standards: a red porgy (118.584 ppb total PCBs); a gray triggerfish (54.210 ppb), and a single red snapper (79.021 ppb). During the April 27, 2010 Oriskany Reef sampling evolution, efforts were made to target additional red and whitebone porgies. Mean April 2010 vermilion snapper total PCB values were 3.863 ppb (N=13). Mean red snapper values were 13.579 ppb and mean porgy values (three red, four whitebone) were 46.285 ppb total PCBs. Mean porgy total PCB values were below the Florida Dept. of Health Screening levels but above the EPA Tier 1 screening level. Semi-annual fish sampling for PCBs on the Oriskany Reef is expected through at least April 2011 (five years post-sink).

Post-deployment monitoring of the 520' former missile tracking ship *General S. Vandenberg* artificial reef (sunk as an artificial reef May 17, 2009 off Key West) also continued during FY 2009-2010. This user study was designed to detect changes in fishing and diving activity on natural reefs in the vicinity of the *Vandenberg* site from baseline use levels noted prior to the placement of the vessel as a reef. The field work was completed in June 2010. Data are currently being analyzed by NOAA (Dr. Bob Leeworthy) with a preliminary report expected by the end of December 2010.

MARINE FISHERIES SERVICES SECTION

This section in the Division 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.

Audit Activity for 2009-2010 included four wholesale dealer general audits and 12 wholesale dealer inspections or face-to-face interviews to assess the level of business activity and the level of adherence to state record keeping standards. FWC law enforcement officers requested analyses of activity on 20 wholesale dealer licenses and 44 commercial saltwater fishing licenses to aid in their investigations.

Activity analyses of two wholesale dealers and 12 commercial fishing licenses were performed to aid NOAA law enforcement investigations pertaining to irregularities in red snapper IFQ landing reports and the ongoing effort to reduce lobster poaching and curtail the use of artificial lobster habitat (casitas). The auditor was served with one subpoena for records prior to resolution

of a criminal case involving lobster poaching.

One hundred thirty-five wholesale and retail dealers who had failed to submit trip ticket reports in a previous 90-day period were notified by letter in order to determine the status of their business and inform them of the importance of reporting on time and penalties for not doing so.

A total of 20 administrative penalty assessments, totaling $53,000, were issued for major or flagrant commercial marine fisheries violations: four for flagrant net violations (monofilament and/or mesh area >2000 sq. ft.) and three for trap (spiny lobster, blue crab) theft or molestation. The penalties ranged from $500 to $5000 and permanent revocation of fishing privileges.

Twenty three informal administrative hearings were conducted for fishers appealing an administrative penalty assessment or agency action affecting their commercial fishing license(s). Of these 23 hearings, seven concerned denials of a blue crab effort management endorsement, six concerned trap retrieval fee assessments, six concerned penalties assessed for conviction of a violation involving use of illegal net gears, and four addressed denial of other commercial permits.

With reference to the trap retrieval/debris removal programs, 5,589 spiny lobster, stone crab, and blue crab traps were retrieved during the closed seasons over the course of 34 retrieval trips at a total cost of $111,215. In addition, 23 volunteer-organized cleanup projects were authorized to collect and dispose of derelict traps and trap debris [broken traps, buoys, and lines]. A total of 1,556 traps were removed by volunteer efforts.

A total of 147 Special Activity Licenses (SAL) was issued, 35 Special Activity License amendments were issued, and three applications were withdrawn.

A total of 58 Redfish Catch Hold and Release Tournament Exemption Permits was issued, and one Redfish Catch Hold and Release Tournament Exemption Permit amendment was approved.

The Division's liaison with commercial fishers and saltwater products dealers produced the commercial fishing regulations publication, newsletters and notices regarding proposed regulations, workshops, etc. by e-mail and regular mail.

Angler Outreach and Aquatic Resource Education Program

Staff participated in various types of events where they provided information on fishing license requirements, fishing opportunities, fisheries management projects, effective catch and release techniques, the importance of habitat protection for healthy fisheries, and the Sport Fish Restoration Program. During seven fishing shows across Florida, over 39,200 anglers (including 2,120 children) engaged staff in discussions on fisheries issues and fisheries conservation. At the 12-day Florida State Fair, 383,512 stakeholders viewed fisheries displays and interacted with FWC staff. Four Ladies Let's Go Fishing Clinics were held with 184 women participating in learning more about sport fishing and fishery resources during these two-day events. Staff also attended other women's fishing events with 84 women participating, including a new shore-based women's fishing clinic offered by the FWC in Crystal River. A total of 11 Kids' Fishing Clinics were conducted statewide; 3,178 children and their parents participated in the clinics, learning about angling techniques, ethical angling and the importance of habitat conservation. The Cedar Key Field Laboratory in the West Central Florida Big Bend area is a site where 620 students, several dozen teachers, and parents learned how to use equipment and sampling methods that FWC biologists utilize to collect data for fisheries management as well as aspects of basic fishing, including fisheries conservation techniques.

Twenty-three teacher workshops were conducted statewide; 336 teachers were instructed in fisheries management practices and proper specimen-collecting methods for classroom learning programs. Teachers were issued "collecting certificates" after completing a training session. This certificate allows them, with their students, to collect specimens that would otherwise be prohibited because of size, season, etc., for

educational purposes.

Staff continued active participation in The Monofilament Recovery and Recycling Program (MRRP), which has been growing steadily since its inception in Brevard County in 1999. Florida's MRRP is a partnership between government agencies, non-profit, public and private organizations. The FWC Division of Marine Fisheries Management coordinates the expansion and distribution of monofilament recycling bins throughout the state.

Staff continued the outreach programs to saltwater anglers in the Panhandle region during this fiscal year. Staff engaged anglers at outdoor events, tackle shops and fishing club meetings. At these events over 2,000 adult and youth anglers interacted with FWC staff and discussed ethical angling practices, fisheries management and habitat conservation. Staff also participated in several fishing tournaments in Florida to speak at captain's meetings and set up a booth. Staff provided information about ethical angling practices, fisheries management, habitat conservation, and other ways anglers can promote fisheries conservation to approximately 750 anglers at the events. Staff has been active in agency and inter-agency efforts to increase youth participation in hunting, fishing, and outdoor nature based activities in general.

FLORIDA FISH AND WILDLIFE RESEARCH INSTITUTE:

Gil McRae, Director

Deepwater Horizon Oil Spill in the Gulf of Mexico

FWRI staff continues to be actively engaged in both response and Natural Resource Damage Assessment (NRDA) activities tied to the April 2010 Deepwater Horizon Oil Spill in the Gulf of Mexico. FWRI deployed dozens of staff members shortly after the event to provide mapping, GIS, aerial reconnaissance, wildlife points of contact, NRDA, and State Scientific Coordinator support in the following locations: Destin, Houma, Miami, Mobile, Pensacola, St Petersburg, and Tallahassee. FWRI staff played an integral role in the implementation of Digital Area Contingency Plans (ACPs) to support response activities. A large number of FWRI scientists serve as technical leads on a number of NRDA Technical Workgroups tasked with documenting the extent of injury to resources and lost human use.

Finfish

Studies of spotted seatrout reproduction in Tampa Bay were completed, and a similar study of the reproductive biology of red drum in the Tampa Bay region was initiated. Our intensive data collection program aimed at fully characterizing the state's snook fishery and our projects examining snook population movements and habitat utilization along Florida's east coast were continued. Our study of goliath grouper habitat utilization in the eastern Gulf of Mexico is continuing and is now augmented with a study of catch and release mortality of this species. A study of the physiological effects of catch and release on tarpon was completed. Work on the biology and ecology of reef fishes in southeast Florida, with an emphasis on spawning aggregation studies, continued. We also are initiating new studies on Florida's permit fishery and the ecology of juvenile bonefish.

Mollusks

Bay scallop (*Argopecten irradians*) population restoration is ongoing from Pine Island Sound to St. Andrew Bay, with success evaluated via surveys of adult abundance and recruitment patterns. Oyster (*Crassostrea virginica*) population assessment and larval dispersal studies are being conducted in southeast Florida and Pensacola Bay. Oyster monitoring programs are focused on the evaluation of the Comprehensive Everglades Restoration Program and federally-funded (ARRA) oyster restoration in St. Lucie County, FL. FWRI is also participating in updating the FMP for gulf oysters. A Community-Based Restoration Program for hard clam (*Mercenaria)* population enhancement was completed. A study of the impact of beach nourishment activities on beach denizens (*Donax, Ocypode, Emerita*) was completed. A study of calico scallop (*Argopecten gibbus*) population attributes was completed.

Crustaceans
Research into Lipofuscin age determination of Florida blue crabs continues. The study is developing a Florida-based known-age blue crab calibration curve to verify the accuracy of correlating lipofuscin content with age. Following the implementation of a Blue Crab Effort Management Plan (BCEMP) blue crab effort and landings are being investigated to determine the effects of this program on landings. A statewide disease monitoring program, using histology and qPCR, for the detection of *Hematodinium* in wild populations of blue crabs was implemented. This program seeks to understand the role of this disease in the natural mortality of the blue crab populations. We continue the process of horseshoe crab spawning beach identification and collecting spawning site information. The stone crab monitoring project continues at nine locations along the west Florida coast. This program gathers fishery-independent data on the stocks exploited in this claws-only fishery. Since the programs implementation, sufficient data has been collected to suggest fishery specific trends.

Fisheries Genetics
With angler assistance, we continued to use DNA markers to genetically track individual tarpon in capture-recapture and stock structure studies in Southwest Florida; to-date, ~5,000 samples from caught-and-released tarpon have been obtained and genotyped. Genetic stock identification studies of spiny lobster and common snook continued. We continued to examine the distributions of cryptic bonefish species in FL and identified a new bonefish species (ms in press), which occurs in South Florida, Mexico, and some Caribbean locations. We continued to evaluate the Tampa Bay red drum stocking program, with about 2,700 of the 31,134 red drum processed to date found to be of hatchery origin. Because stocked fish have recruited to the breeding population, YOY red drum are also being collected from Tampa Bay and analyzed for genetic impacts from the stocking program. A total of 29 *de novo* microsatellite DNA markers were isolated and characterized for eastern-central GOM hogfish; 35 microsatellite markers were isolated and characterized for Atlantic and Pacific goliath grouper. Approximately 500 *Cynoscion* specimens from Georgia coastal waters and 200 specimens from Florida Atlantic offshore waters were genotyped for species ID and to determine individual levels of hybridity.

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

During 2009-2010, Florida commercial landings totaled approximately 87.1 M lbs of fish, crab, clams (wild harvest only, excludes aquaculture), lobster, shrimp, and other invertebrates worth over $165 M in dockside value from 210,665 commercial fishing trips. Marine life landings (live fish and invertebrates for aquaria and other uses) in 2009-10 amounted to 7.2 M individual specimens worth more than $2.7 M in dockside value.

An estimated 5 M recreational anglers made 23.8 million fishing trips in 2009-2010. FWC field staff conducted more than 50,000 angler interviews for the FY which also included 113 at-sea sampling trips, and more than 12,000 calls to for-hire vessel representatives.

Marine Fish and Shellfish Health
Fish and Wildlife Health (FWH) staff in St. Petersburg monitors the health of aquatic organisms throughout the state of Florida. During the 2009-2010 FY, the FWH group conducted necropsies (laboratory or field examinations of fish to collect health data) on 902 specimens that covered four project aspects: 1) event response (n=107), 2) health monitoring (n=291), 3) special

projects (n=63) and, 4) stock enhancement support (n=441). Many fish specimens were collected by Fisheries Independent Monitoring (FIM) and submitted to FWH because they exhibited gross external abnormalities or because we requested apparently healthy specimens to fulfill our objective to develop health profiles for sport fish.

Event response specimens (12%) were evaluated as part of fish kill investigations or other fish and wildlife health related events. Health monitoring specimens (32%) were collected to gather baseline data on sport fish and for disease surveillance during regular sampling by FIM. Fish categorized under special projects (7%) included sport fish collected for parasitological analysis to study parasites that may impact potential aquaculture species. Fish examined for stock enhancement purposes (49%) were evaluated in support of the Florida Marine Fisheries Enhancement Initiative (FMFEI). These fish came from trial recirculating aquaculture systems from our Stock Enhancement Research Facility and from our partners, Mote Marine Aquaculture Laboratory and Harbor Branch Oceanographic Institute.

The statewide, toll-free Fish Kill Hotline (1-800-636-0511) and our web-based fish kill reporting form allow the public to report aquatic mortality and disease events directly to scientists, who can respond immediately to their concerns. Since its inception, the FWH group has received and responded to over 15,849 reports/information requests (hereafter referred to as reports). In 2009-2010, a total of 2,259 reports were received by FWH fish kill hotline, through the FWRI website or via direct calls. Approximately 72% of reports were related to unique fish kills, while 10% referred to previously reported fish kills, and the remaining 18% fell into other categories.

FWH biologists investigated fish kills when practical, especially when marine fish kills were reported within a 30-mile radius of FWRI (Saint Petersburg). Often, for fish kills greater than 30 miles from FWRI, workers from FWC field laboratories or other agencies conducted investigations on our behalf. Investigations generally consisted of in-situ water quality analysis and examination of water and/or sediment for algal blooms, and collection of moribund or freshly dead fish for necropsy and histopathology. Twenty- six sites were investigated for fish kills. A fish kill was considered an "event" when it was politically, economically, or ecologically significant. Four events, which included the 2010 winter kills throughout Florida and the long-lasting St John's River kill, accounted for over 60% of all fish kill reports.

Stock Enhancement Research

Progress with the Florida Marine Fishery Enhancement Initiative focused on seeking funding for building future marine ecocenters. Design and engineering efforts were ongoing at New Smyrna Beach to determine which buildings to renovate for a future FWC marine hatchery. On the west coast, preliminary assessment of a site south of the current Stock Enhancement Research Facility is under consideration for an intensive marine hatchery for Tampa Bay. A third trial of intensive culture of juvenile red drum *Sciaenops ocellatus* was completed achieving nearly 90% fish survival for the 120-day phase-III rearing cycle. We continued to make improvements to transition our culture capabilities from extensive to intensive culture. An intensive culture lab was built indoors for live feeds production required for intensive phase-I culture of larval red drum. A preliminary trial in disinfecting red drum eggs for larval culture was completed. Spawning volumes for spotted sea trout *Cynoscion nebulosus* were increased by enhancing the lighting intensity in the brood rooms. Pond culture with wild juvenile blue crabs *Callinectes sapidus* began in fall 2010 for a planned Lipofuscin study. There were no snook or red drum releases during this period. *Spartina alterniflora* plugs (49,663) and shoots (33,100) were harvested from the hatchery effluent treatment system for shoreline restoration or nurseries at 13 locations throughout Tampa Bay.

Marine Mammals

FWC documented a record number of manatee carcasses in Florida during 2010 (preliminary data reported here through December 24, 2010). As of December 24, 2010, 737 cases were documented. Cold stress deaths accounted for the

majority of cases (>250 cold stress cases to-date). Preliminarily, 79 watercraft-related mortalities were reported during that time period. Statewide manatee rescues were also at a record high.

A statewide "synoptic" survey was flown in 2010 and a record count of 5,076 manatees was recorded. This is considered to be a minimum count and does not provide a population estimate. An important objective within the state Manatee Management Plan includes improving these methods and implementing statistically sound methods to estimate the manatee population.

During the 2009-10 North Atlantic right whale calving season (December 1, 2009–March 31, 2010), staff coordinated and conducted aerial surveys off the coastal waters of Florida in an effort to alert vessels to the presence of right whales, monitor calf production, identify unique individuals, and describe whale distribution and habitat. FWC staff conducted 63 aerial surveys this season. Nineteen mother/calf pairs were documented during the 2009/2010 North Atlantic right whale calving season. Five entanglement related events were documented by FWRI in the southeastern U.S. during the 2009-2010 calving season. In collaboration with the Georgia Department of Natural Resources, staff conducted 34 right whale biopsy sampling trips resulting in samples from ten calves and several previously un-sampled juvenile and adult whales.

DIVISION OF HABITAT AND SPECIES CONSERVATION

Tim Breaux, Director

Imperiled Species Management

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

Manatees

The Imperiled Species Management Section (ISM) implements the tasks of the Florida Manatee Recovery Plan and the newly approved state Manatee Management Plan (2007). The activities are focused in six 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 and enhance manatee habitat, particularly warm water refuges and seagrasses.
5. Outreach activities to provide current information to the public and promote conservation stewardship.
6. Stakeholder engagement to encourage participation and partnerships.

More details on the manatee program are available in the Save the Manatee Trust Fund Annual Report to the Legislature, which can be found at: http://research.myfwc.com/images/articles/36071/stmtf_report_09-10.pdf.

Highlights

Duval County MPP Revision Update: FWC is finalizing the portions of the MPP revisions for which we are responsible. The recreational boat traffic study that was contracted by the county with an outside consultant is still being revised as data inconsistencies were identified during the FWC review. The draft of the MPP revisions may be completed by the summer of 2011.

Collier County MPP revision update: FWC assisted Collier County with updating their marine facility inventory. The recreational boat traffic study was completed by the county's contractor during this year. The FWC and the county have divided up the tasks required to complete revisions to the plan and that work is underway now that data collection is complete.

FWC continues to assist Sarasota County in revising their MPP and have provided input on

an early draft. The county expects to complete its plan revisions by 2011.

FWC also continues to assist Miami-Dade County, as they evaluate what revisions they may make to their MPP. In 2010, FWC began discussion with Charlotte County as they consider whether they want to voluntarily develop an MPP.
Comprehensive Plan amendments for Broward, Hillsborough, and Citrus Counties were reviewed and comments provided to DCA. A Development of Regional Impact in Charlotte County was also reviewed.

Staff produced 323 final comment letters for development projects reviewed during the year and offered recommendations to reduce or eliminate potential adverse impacts to manatee from the proposed activities. Implementation of the Boat Facility citing portion of FWC- approved MPPs is accomplished during the permit review process. Distribution of public information about manatees is also accomplished through these comments as facilities are required to post informational signs on manatees and distribute written materials to boat users.

ISM continued work with the U.S. Army Corps of Engineers (Corps) in revising their Manatee Key that is used in the Federal permitting process. This was an effort that included the participation of the regulatory branch of the Corps and the U.S. Fish and Wildlife Service (USFWS). Also, as a part of this process, FWC provided assistance to the USFWS as they developed a programmatic biological opinion that should, once implemented, assist in streamlining the federal permitting for projects where manatees may be affected.

Work to evaluate and modify the existing speed zones in Sarasota County was completed and the final rule was adopted in June 2010. Staff began the process of evaluating the existing rules in Broward County and considering the need for new speed zones in Flagler County. FWC completed extensive data analysis in both counties and identified areas that should be evaluated for possible modifications to existing rules in Broward County and areas for new regulations in Flagler County. The counties each formed Local Rule Review Committees to provide local perspective to FWC as part of the rule process. Those committees are currently meeting this summer and discussing the FWC proposal.

Structure Related Manatee Deaths have totaled 196 (since 1974) as a result of interactions with the numerous water control structures located on the State's waterways. The annual average structure related deaths pre-retrofitting has decreased from an average of 6.5 manatees/year (1974-1999) to a post-retrofitting average of 3.5 manatees/year (2000 to 2009). Provided funding continues, the two remaining water control structures requiring manatee protection should be retrofitted over the next two years. The repair of the manatee protection device on the Canaveral locks is scheduled to be fixed in early 2011.

FWC continues to work with Water Management Districts in the development of Minimum Flows and Levels (MFLs) for spring systems that provide warm water habitat for manatees. MFLs for Homosassa Springs and the Chassahowitzka River were addressed this year with the goal to protect winter warm water manatee use.

FWC is working with The Nature Conservancy and the USFWS to identify and complete restoration and enhancement projects for Florida springs systems that will improve manatee access to warm water habitat. To date, representatives from multiple agencies are working together to improve access at Fanning Springs. A barrier was removed from Warm Mineral Springs this year to improve manatee access. The permit for water management at Sulphur Springs was conditioned to ensure ample water levels for manatees.

FWC completed negotiations with Florida Power and Light regarding the necessary short and long-term measures that are needed for manatee protection during the conversions of the Cape Canaveral and Riviera Beach power plants. Both plants will be required to have an interim warm water refuge while their primary discharges are offline. Additionally, both plants are required to develop Environmental and Biological Monitoring

Plans to be implemented during the conversion process and post conversion, which will last through 2016. These plans will provide for temperature monitoring of the interim thermal refuge and the refuge post conversion.

Manatee distribution data will be collected via aerial surveys. Manatee movement data will be collected from satellite- tagged manatees and will provide information regarding manatee distribution and identify high use areas during the winter cold season. In addition, daily health assessments at the interim warm water refuge are required, so any manatees that may be suffering from cold stress-related symptoms can be identified quickly and an appropriate response can be conducted by FWC or its partners.

FWC coordinated with power companies during this past winter to insure that individual power plants were adhering to their operational National Pollutant Discharge Elimination System mandated Manatee Protection Plans. Although the power plants maintained warm water discharges through most of the winter, the extreme cold of 2010 resulted in numerous mechanical difficulties that complicated the operation of power plants throughout the state. These complications provided additional difficulties for manatees seeking consistent warm water habitat.

Educational activities for manatee conservation included the distribution of brochures and other informational materials to local governments, stakeholders, conservation groups, marinas, schools, libraries and the general public. Staff responded to 164 requests for printed materials.

Marine Turtles

The Imperiled Species Management Section (ISM) implements tasks from recovery plans for five species of marine turtles. The activities are focused in five program areas:

1. Review of state and federal permitted activities to minimize negative impacts to marine turtles and their nesting habitat.
2. Provide permits to individuals, organizations, and facilities that conduct research or conservation activities or keep captive marine turtles.
3. Assist local governments and private sector in efforts to reduce impacts of lights on marine turtle nesting.
4. Development of longer term conservation strategies such as Habitat Conservation Plans (HCPs).
5. Outreach activities to provide current information to the public and promote conservation stewardship.
6. Respond to unusual or catastrophic events that impact marine turtles.

Accomplishments

- Staff participated in two catastrophic events that impacted sea turtles in the Florida Panhandle and the Atlantic coast, the January 2010 cold stun event and the Deepwater Horizon Event. During the January cold stun event, staff retrieved animals from St. Joseph Bay in Gulf County, transported them to Gulf World in Panama City for rehabilitation, and then assisted in the release of animals. Tequesta program staff was integral in processing, transport, and release of animals retrieved from peninsular Florida, including Mosquito Lagoon and other areas along the Atlantic Coast. During the Deepwater Horizon event, staff participated in Technical Working Groups (TWGs), for Natural Resource Damage Assessment (NRDA) planning, and in actual response and rehabilitation activities.

- ISM staff served on the Marine Turtle Grants Committee. This program awarded approximately $335,000 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.

- At the request of local governments, staff participated in six public workshops hosted in the Panhandle and southeast Florida. Upon request, staff also conducted educational presentations concerning marine turtles, lights,

and other impacts to schools and meetings of local conservation groups, home owners associations and other interested groups.

- Staff reviewed and approved approximately 189 applications for conservation activities with marine turtles, including nesting beach surveys, stranding and salvage work, research, public turtle walks, rehabilitation at captive facilities, and educational display. Staff also made presentations at four Nesting Beach Survey training workshops statewide.

- FWC authorized captive facilities to hold marine turtles for rehabilitation (14), for educational display (seven), or for research (two). Staff coordinated transfer and release of marine turtles during rehabilitation, and supervised public sea turtle releases.

- Staff continued to monitor captive facilities in the State that rehabilitate marine turtles or hold turtles (loggerhead and non-releasable turtles only) for educational purposes. Staff conducted four facility inspections. Inspections focused on compliance with FWC's Marine Turtle Conservation Guidelines and ensured facilities are safe for turtles being temporarily or permanently held in captivity.

- Staff reviewed approximately 309 projects and provided 114 final formal comment letters to the Florida Department of Environmental Protection's (DEP) District Offices, DEP's Bureau of Beaches and Coastal Systems, the Water Management Districts and the State Clearing House. Projects reviewed included Coastal Construction Control Line applications, Environmental Resource Permit applications, and Joint Coastal Permit applications. Staff participated in over 100 meetings on these projects and on other issues involving marine turtles with staff from local governments, other state and federal agencies, and stakeholders.

- Staff initiated or participated in more than 64 conference calls on specific projects and marine turtle conservation issues as well as participated in development of two Habitat Conservation Plans (HCP) - the Walton County HCP and the statewide HCP (in cooperation with the DEP).

- Staff conducted more than 64 site inspections as part of our environmental commenting responsibilities, including lighting inspections at the invitation of local governments and property owners. Program staff also participated in three administrative hearings.

- Staff participated in the design, implementation, and review of monitoring plans required to assess the impacts of permitted activities on marine turtles, their nests, and hatchlings.

- FWC staff was invited to participate as an expert for the U.S. Fish and Wildlife Service and Army Corps of Engineer's Team on the Programmatic Biological Opinion for beach restoration. Staff served on the following teams, working groups, and committees: Archie Carr Sea Turtle Refuge Working Group, Archie Carr Beach Nourishment Meeting Committee, DEP's Turtle Friendly Berm Technical Advisory Group, FWC's Coastal Wildlife Conservation Initiative, Permitting, and Wildlife Friendly Teams, the Marine Turtle Grants Committee, DOT's Coastal Roadway Lighting and Regional Endangered Species Team. Staff coordinated with local officials on lighting inspections in numerous coastal communities.

- 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.

- FWC staff hosted the 2010 Marine Turtle Permit Holder Workshop in Tallahassee for over 300 Marine Turtle Permit Holders, volunteers, local government, state and federal agency staff. This two-day event included approximately

15 presentations by agency management and research staff, conservation organizations, and local governments, as well as, summaries of Marine Turtle Grant projects.

- Staff responded to 61 requests for educational materials concerning sea turtles and provided copies of educational brochures, posters, rack cards, and other information.

- Staff created a colorful decal featuring a photograph of a juvenile green sea turtle at the water's surface. This decal, number 19 of a series, was distributed to local tax collectors offices across Florida. Funds from the sale of this decal support FWC's marine turtle program.

- At the request of local governments, staff participated in six public workshops hosted in the Panhandle and southeast Florida. Upon request, staff also conducted educational presentations concerning marine turtles, lights, and other impacts to schools and meetings of local conservation groups, homeowners' associations and other interested groups.

- Through a Marine Turtle Lighting course, which was developed jointly with the USFWS, FWC staff was able to provide information on sea turtles and lights to a variety of entities across peninsular and panhandle Florida. Lighting workshops were presented to an audience of 152 individuals. Participants included local government, code enforcement, private property owners, state agency staff, marine turtle permit holders, county employees, lighting consultants, insurance companies, and interested citizens. These workshops were hosted by different organizations around the state, including Franklin, Walton, Sarasota, Palm Beach, Broward, Volusia, Monroe, and Brevard Counties.

- Staff is administering four grants, including $416,000 from the U.S. Fish and Wildlife Service for Walton County's Habitat Conservation Plan; $47,292 from the National Fish and Wildlife Foundation for lighting improvements in areas impacted by the 2004 hurricanes; ~$25,000, from the National Marine Fisheries Service to assist captive facilities to obtain medical supplies to treat injured and sick marine turtles; and $87,000 from the Florida DEP Coastal Zone Management Program for improvements in coastal armoring designs to minimize impacts to marine turtles and their nesting habitat. Staff also assisted the Wildlife Foundation of Florida and two local governments, the City of Deerfield Beach and City of Venice, to obtain funds from the National Fish and Wildlife Foundation for lighting improvements along their sea turtle nesting beaches. Grant management includes oversight of contracts to local governments and vendors as necessary.

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

Charles Bronson, Commissioner

DIVISION OF AQUACULTURE

Sherman Wilhelm, Director

The Division of Aquaculture conducts numerous activities to promote the development of aquaculture and ensure the quality of aquaculture and shellfish 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 and shellfish resource development:

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

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

During FY 2009/2010, the Division continued its commitment to encourage the development of the aquaculture and shellfish industries in Florida. This commitment is based on the belief that aquaculture will become an integral segment of Florida's agricultural and economic future by providing high quality aquacultural products to worldwide markets while advancing resource management.

The following is a summary of the activities related to aquaculture and shellfish resource management carried out by the Bureau of Aquaculture Development and the Bureau of Aquaculture Environmental Services during fiscal year 2009/2010.

BUREAU OF AQUACULTURE DEVELOPMENT

Aquaculture Certification Program

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

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

The Division certified 896 aquaculture facilities during FY 2009/2010. Shellfish producers (365 farmers) make up 41% of the certified farms, 200 ornamental producers make up 22% of the certified

farms, 194 food fish producers make up 22% of the certified farms, with the remaining producing live rock, alligators and bait. Certified farms are found in 61 of the state's 67 counties: with the highest number of certified farms occurring in Levy County (20%) and Hillsborough County (10%).

Sovereignty Submerged Lands Aquaculture Leasing Program

The Division is responsible for the Aquaculture Lease Program under the provisions in Chapter 253, F.S. Currently, the Division administers 525 aquaculture leases containing about 1,202 acres and 70 shellfish leases containing about 1,183 acres. Aquaculture and shellfish leases are located in 17 counties, including: Bay, Brevard, Charlotte, Collier, Dixie, Franklin, Gulf, Indian River, Lee, Levy, Manatee, Monroe, Palm Beach, Pinellas, Santa Rosa, St. Johns, and Volusia Counties. In response to its statutory mandate, the Division identifies tracts of submerged lands throughout the state that are suitable for aquacultural development. Twenty special aquaculture use areas have been identified by the Division and authorized by the Board of Trustees in nine coastal counties.

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.

The Aquaculture Lease Program supports marine aquaculture in a very unique way, and producing hard clams on sovereignty submerged lands is the largest marine aquaculture business in Florida. A survey of hard clam processors conducted by the University of Florida reported that 184 million clams were sold during 2007, accounting for about $41 million. These results demonstrated that clam production was increasing again, and that the industry was recovering from losses associated with hurricanes in 2004 and 2005.

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 2009/2010, the Division collected 174,072 bushels of processed oyster shell from processors located primarily in Franklin County and collected 45,912 bushels of clam shell from processors in Cedar Key. Shell planting operations accounted for the deposition of 10,300 cubic yards of processed oyster shell, 1,538 cubic yards of processed clam shell, and 9,548 cubic yards of fossil shell on public oyster reefs in Santa Rosa, Bay, Franklin, and Levy Counties. Oyster resource development projects involving the relaying and transplanting of live oysters were conducted in cooperation with local oystermen's associations in two coastal counties. A total of 68,640 bushels of live oysters were re-planted on public reefs in Franklin and Wakulla Counties.

Restoring Public Oyster Reefs

In 2006, the Department entered into a subcontract agreement with the Gulf States Marine Fisheries Commission (through NOAA) to restore oyster reefs adversely affected by hurricanes under the Emergency Disaster Recovery Program (EDRP). The five-year, $4.2 million contract provides for three project components: 1) restoring public oyster reefs, 2) providing economic assistance to oyster farmers, and 3) developing a scientific model to assess the success of oyster reef restoration efforts in the Pensacola Bay system. In 2009/2010, the Division continued to be actively engaged in restoring oyster reef habitat on numerous sites identified in the EDRP oyster restoration plan. Oyster reef restoration operations accounted for the deposition of 21,386 cubic yards of substrate materials on pubic oyster reefs in some of Florida's most productive estuaries.

Apalachicola Bay Oyster Harvesting License

An oyster harvesting license is required to harvest oysters from Apalachicola Bay. In 2010, 1,433

oyster harvesting licenses were sold, representing a 23% increase over the number of licenses sold in the preceding year. License sales demonstrate a trend in the increasing number of harvesting licenses sold, and represents the highest number of licenses sold since the license was established.

Technical Support Programs

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

BUREAU OF AQUACULTURE ENVIRONMENTAL SERVICES

Shellfish Sanitation and Environmental Assessment Programs

A total of 39 shellfish harvesting areas totaling 1,445,833 acres are currently classified and managed statewide. During FY 2009/2010, 719 sampling excursions were conducted to collect and analyze 14,337 water samples for fecal coliform bacteria. There were 405 management actions to close or re-open shellfish harvesting areas in accordance with the management plans for individual shellfish harvesting areas. During FY 2009/2010, a total of 104 Shellfish Processing Plant Certification Licenses were issued and 428 regulatory processing plant inspections were conducted. Based on inspection results, 50 warning letters and five settlement agreements were issued**.**

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF FISHERIES
Robert Barham, Secretary

The mission of the Louisiana Department of Wildlife and Fisheries (LDWF) Office of Fisheries is to conserve and protect Louisiana's renewable aquatic resources for present and future generations of Louisiana citizens by controlling harvest and replenishing and enhancing stocks and habitat. The mission is accomplished through the activities of programs within the Office of Fisheries: Shellfish (shrimp and crabs), Mollusc (oyster), Finfish, Habitat, and Research. The clients served by these programs include present and future generations of Louisiana citizens, as well as national and international interests that derive benefits from consumptive and non-consumptive use of Louisiana's fisheries resources. The Department recommends season, size, and possession limits or recommends other means of conserving key resources. Other conservation/protection methods include replenishing species and enhancing or developing species or habitats as needed to provide for the needs of consumptive and non-consumptive users or environmental health. The Department also conducts research to provide insight into the proper functioning of natural systems, and educates the public and promotes wise use of resources.

This report describes program activities that support this mission.

Fishery Openings/Closings
Since April 28, 2010, the LDWF and LWFC have issued over 60 declarations of emergency which closed, opened, re-closed or re-opened portions of LA inside and outside waters to recreational and commercial fishing. The last action taken was dated in November which reopened crab fishing in a portion of the lower MS River Delta between Southwest Pass and Pass a Loutre.

Since agreeing to the FDA/NOAA fisheries reopening protocol in mid-July, the LDWF has submitted eight requests to reopen portions of state waters to recreational and commercial fishing which have resulted in the complete openings of the Terrebonne and Pontchartrain Basins and significant portions of the Barataria Basin. At one point in time, as much as 76% of saltwater areas of the state were affected by a recreational and commercial fishing closure. On July 5, 2010, approximately 4,425 square miles or 57% of state waters were closed to recreational and commercial fishing. Currently, 1.5% of saltwater areas of the state remain closed to commercial fishing and approximately 0.5% of these areas remains closed to recreational fishing, except for recreational angling and charter boat angling.

Tissue sampling for seafood safety
This assessment has been a two-pronged approach, with private testing labs being used to analyze seafood coastwide on a regular, ongoing basis. In addition, the state has entered into a cooperative agreement with NOAA and the U.S. FDA, who analyze samples taken in areas proposed for reopening after closures due to oil impacts. Both state and cooperative NOAA / FDA sampling programs evaluate the same set of polycyclic aromatic hydrocarbons (PAH). The state sampling also assesses total aliphatic hydrocarbons. To date, 485 statewide samples have been taken for seafood monitoring, none of which have had any PAH level near or above the established levels of health concern. This included several samples provided by individuals that reported suspected oil in their seafood. In addition, 117 samples have been taken for the NOAA/FDA reopening protocols. None of those have had any levels of hydrocarbons near or above the levels of health concern.

Habitat Issues
Fisheries staff have been working on several habitat issues related to the Deepwater Horizon oil spill. On the Natural Resources Damage Assessment (NRDA) front, staff is working on developing study plans for assessing damages for fish, marine mammals and turtles, oysters, SAV, benthic habitats, and shoreline (including marsh and mangrove vegetation). Staff is working with

NOAA and contractors in field efforts. This is a long-term task, and is just in the beginning phases.

Fisheries personnel, including Marine Section, Inland Section, and the Marine Lab have also had responsibility for area reconnaissance. That has accounted for approximately 1,678 man days, 757 vessel days, and 704 reconnaissance trips. This information was used to help determine extent and severity of oil contamination in state waters, which was part of the information used in the process of making decisions on closing and reopening areas for recreational and commercial fishing.

Fisheries personnel also responded to many reports of marine animal mortality events, including fish kills, turtle and dolphin strandings. Characterization of the fish kills was made, and forensic sampling of dead turtles and dolphins was done to attempt to determine cause of death. Collection of dead animals was made when feasible. Several turtles and a dolphin were rescued, and rehabilitated through cooperation with the Audubon Aquarium facilities and staff.

From the onset of the Deepwater Horizon Oil Spill Incident to the end of 2010, the Louisiana Department of Wildlife and Fisheries and others investigated a total of 81 marine mammals throughout the entire coast of LA. Of these animals the following are included:

- three whales
- three neonates confirmed
- obviously externally oiled dolphins = four (including all size classes)
- 11 live stranded dolphins (most of which were immediately rereleased once assessed)

To date thus far in 2011, as of February 28, 2011, a total of 35 marine mammals have been investigated by the Louisiana Department of Wildlife and Fisheries throughout the entire coast of LA. Of these animals the following are included:

- two whales
- one fetus from a dead pregnant female that was recovered
- two live dolphins (one was rereleased on site, and one is currently undergoing rehabilitation)
- Obviously externally oiled dolphins = four (including all size classes)
- Confirmed neonates = four

Data Management

Since the BP oil spill, over 2,300 requests for trip ticket landings have been processed for fisherman claims. After BP announced that it would require certified copies of trip ticket data from LDWF, the Department started receiving multiple sets of trip tickets from previous years, 2008 and 2009 in particular. All late submissions were thoroughly reviewed and forwarded to LDWF Enforcement for investigation. Several citations have been issued and two arrests for fraud have been made to date. Investigations are still continuing.

Inshore/Nearshore Sampling

In response to the need for information to assess the status of living marine resources in inshore waters, and in the shelf waters off of Louisiana, a long-term sampling program has been designed. Inshore sampling will be a modification of the long-term existing sampling program, with the addition of new stations and incorporation of a stratified random sampling design into the existing program. Offshore sampling will consist of a series of trawl transects across Louisiana. Sampling for these programs began March 1, 2011.

SHELLFISH PROGRAM

The Marine Fisheries Division continued its long-term trawl sampling program throughout coastal Louisiana. Fishery biologists collected 437 six-foot trawl and 2,240 16-foot trawl samples from inshore and offshore waters. Data from these samples were used to recommend season frameworks for both the fall and spring inshore shrimp seasons and winter territorial sea shrimp seasons. In addition, these same data were used to recommend season extensions and special seasons and to provide recruitment indices for Gulf menhaden and blue crabs.

Shrimp

The Office has continued to administer a $146,749 federal grant (Interjurisdictional Assessment and Management of Louisiana Coastal Fisheries

-NOAA/DOC Award No. NA07NMF4070050). The objective of the Interjurisdictional Fisheries Project is 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 management decisions. Technical, biological, and hydrological data gathered from the monitoring program were used to establish seasonal frameworks within the shrimp and oyster fisheries, predict annual Gulf menhaden (*Brevoortia patronus*) abundance, and provide data for managing groundfishes and blue crabs (*Callinectes sapidus*). These data have 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 the 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 during the fiscal year. 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. These data were compared with annual stock availabilities and previous production estimates calculated during the fiscal year.

Management Actions

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

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

Shrimp Seasons

Based upon analysis of historic data as well as data from biological sampling by LDWF, the following management practices were implemented during the report period: Data were used to set the opening and closing dates of the 2009 Spring inshore shrimp season, set opening and closing dates of the 2009 Fall inshore shrimp season, extend inshore seasons in portions of inside waters and close and then reopen to shrimping portions of Louisiana outside territorial waters.

Recommendations for the opening dates of the spring shrimp season in inside waters are determined by projecting when 50% of the inshore population of brown shrimp sampled within each zone are 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 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.

Shrimp Management Zone I

2010 – Special Spring Inshore Shrimp Season

- Opened at 6:00 a.m. April 28, 2010 in the open waters of Breton and Chandeleur Sounds as described by the double-rig line in LA R.S.6:495.1(A)2
- Opened at 6:00 a.m. April 29, 2010 in the remainder of Zone 1 except those waters south of 29 degrees 30 minutes 00 seconds north latitude.
- Closed at 6:00 a.m. April 30, 2010 south of the southern shore of the Mississippi River Gulf Outlet

- Closed at 6:00 p.m. May 4, 2010 in the remainder of Zone 1 including all state outside waters seaward of the inside/outside shrimp line from the Mississippi / Louisiana state line to the western shore of South Pass of the Mississippi River at 89 degrees 08 minutes 42 seconds west longitude

2010 - Spring Inshore Shrimp Season

- Opened at 6:00 a.m. May 31, 2010 except for the following:
  - The open waters of Breton and Chandeleur Sounds as described by the double-rig line
  - Those waters extending north of Martin Island at 29 degrees 57 minutes 29.6 seconds north latitude; thence northward to isle au Pitre at 30 degrees 09 minutes 20.5 seconds north latitude from the double-rig line westward to 89 degrees 17 minutes 10 seconds west longitude
  - Those waters south and east of Baptiste Collete Bayou
  - State outside waters seaward of the inside/ outside shrimp line from the eastern shore of South Pass of the Mississippi River eastward to the Mississippi/Louisiana state line
- Closed at 6:00 a.m. July 20, 2010 except for the following:
  - Lake Pontchartrain including Rigolets Pass from the mouth of Lake Pontchartrain extending eastward to the western side of the CSX Railway Bridge
  - Chef Menteur Pass from the mouth of Lake Pontchartrain southeasterly to the mouth of Lake Borgne
  - That portion of Mississippi Sound beginning at a point on the Louisiana-Mississippi Lateral Boundary at latitude 30 degrees 09 minutes 39.6 seconds north and longitude 89 degrees 30 minutes 00.0 seconds west; thence due south to a point at latitude 30 degrees 05 minutes 00.0 seconds north and longitude 89 degrees 30 minutes 00.0 seconds west; thence southeasterly to a point on the western shore of Three-Mile Pass at latitude 30 degrees 03 minutes 00.0 seconds north and longitude 89 degrees 22 minutes 23.0 seconds west; thence northeasterly to a point on Isle Au Pitre at latitude 30 degrees 09 minutes 20.5 seconds north and longitude 89 degrees 11 minutes 15.5 seconds west, which is a point on the double-rig line as described in LA R.S. 56:495.1(A)2; thence northerly along the double-rig line to a point on the Louisiana-Mississippi Lateral Boundary at latitude 30 degrees 12 minutes 37.9056 seconds north and longitude 89 degrees 10 minutes 57.9725 seconds west; thence westerly along the Louisiana-Mississippi Lateral Boundary to the point of beginning
  - The open waters of Breton and Chandeleur Sounds as described by the double-rig line

2010- Fall Inshore Shrimp Season

- Opened at 6:00 am August 16, 2010
- Closed at official sunset December 21, 2010 except for the following:
  - Lake Pontchartrain, Chef Menteur pass, Rigolets Pass, the MRGO, that pert of lake Borgne seaward of a line extending one-half mile from the shoreline, a portion of Shrimp Management Zone 1 extending north of the south shore of the Mississippi River Gulf Outlet, beginning at a point on the Louisiana-Mississippi Lateral Boundary at latitude 30 degrees 09 minutes 39.6 seconds north and longitude 89 degrees 30 minutes 00.0 seconds west; thence due south to a point at latitude 30 degrees 05 minutes 00.0 seconds north and longitude 89 degrees 30 minutes 00.0 seconds west; thence southeasterly to a point on the western shore of Three-Mile Pass at latitude 30 degrees 03 minutes 00.0 seconds north and longitude 89 degrees 22 minutes 23.0 seconds west; thence northeasterly to a point on Isle Au Pitre at latitude 30 degrees 09 minutes 20.5 seconds north and longitude 89 degrees 11 minutes 15.5 seconds west, which is a point on the double-rig line; thence northerly along the double-rig line to a point on the Louisiana-Mississippi Lateral Boundary at latitude 30 degrees 12 minutes 37.9056 seconds north and longitude 89 degrees

10 minutes 57.9725 seconds west; thence westerly along the Louisiana-Mississippi Lateral Boundary to the point of beginning
    - The open waters of Breton and Chandeleur Sounds as described by the double-rig line
- Closed at official sunset January 29, 2011 in remaining waters except for the following:
    - The open waters of Breton and Chandeleur Sounds as described by the double-rig line which remained open to shrimping until 6 a.m., March 31, 2011.

Shrimp Management Zone II

2010 – Special Spring Inshore Shrimp Season
- Opened at noon April 29, 2010
- Closed at 6:00 p.m. May 4, 2010

2010 – Spring Inshore Shrimp Season
- Opened at 6:00 a.m. May 10, 2010
- Closed at 6:00 p.m. July 5, 2010

2010 – Fall Inshore Shrimp Season
- Opened at 6:00 a.m. August 16, 2010
- Closed at official sunset December 21, 2010

Shrimp Management Zone III

2010 - Spring Inshore Shrimp Season
- Opened at 6:00 a.m. May 8, 2010
- Closed at 6:00 a.m. July 20, 2010 except for the following:
    - That portion of the Calcasieu Ship channel originating at a line between Channel Markers 85 and 86 southward to a point originating along the inside/outside shrimp line at Calcasieu Pass 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.

2010 – Fall Inshore Shrimp Season
- Opened at 6:00 am August 16, 2010
- Closed at official sunset December 21, 2010

Offshore Shrimp Seasons

Offshore territorial waters south of the inside/ outside shrimp line from the eastern shore of Freshwater Bayou Canal at 92 degrees 18 minutes 33 seconds west longitude to the U.S. Coast Guard (USCG) navigational light off the northwest shore of Caillou Boca at 29 degrees 03 minutes 10 seconds north latitude and 90 degrees 50 minutes 27 seconds west longitude were closed to shrimping at official sunset December 22, 2009.

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 USCG navigational light off the northwest shore of Caillou Boca at 29 degrees 03 minutes 10 seconds north latitude and 90 degrees 50 minutes 27 seconds west longitude reopened to shrimping at 6:00 a.m. April 21, 2010.

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 92 degrees 18 minutes 33 seconds west longitude reopened to shrimping at noon April 29, 2010.

Offshore territorial waters south of the inside/ outside shrimp line from the eastern shore of Freshwater Bayou Canal at 92 degrees 18 minutes 33 seconds west longitude to the U.S. Coast Guard (USCG) navigational light off the northwest shore of Caillou Boca at 29 degrees 03 minutes 10 seconds north latitude and 90 degrees 50 minutes 27 seconds west longitude were closed to shrimping at official sunset December 21, 2010.

Landings and Value

Shrimp are Louisiana's most valuable commercial fishery, and Louisiana continues to lead the nation in shrimp landings. Preliminary Louisiana shrimp landings in 2010 totaled approximately 69.44 million pounds (all species combined/heads-on weight). Brown shrimp comprised approximately 23% of total shrimp landings and have continued to decline over the past five years, measuring 33.9 million pounds below the long-term mean (1976-2010). Conversely, white shrimp landings over the past five years continued to exceed the long-term mean and in 2010 measured 52.7 million pounds or about 2.2 million pounds above the long-term

mean.

Crabs

Preliminary Louisiana commercial blue crab landings for 2010 totaled approximately 28.9 million pounds. This represented a 48% decrease from 2009 landings. Stone crab landings for 2010 were 934 pounds, a decrease of approximately 48% from 2009. The stone crab fishery in Louisiana is not a directed fishery and stone crabs are primarily taken as incidental bycatch within the blue crab fishery. Low prices associated with increased foreign imports of crabmeat remain a major issue in the fishery.

The major LDWF activity related to blue crabs in 2010 was directed to assisting the Louisiana Crab Task Force and Louisiana Seafood Promotion and Marketing Board in efforts to have the Louisiana blue crab fishery certified as sustainable under the Marine Stewardship Council (MSC).

The 2010 derelict crab trap removal program included a single crab trap closure and cleanup within a part of the Barataria Bay estuary within portions of Lafourche, Jefferson and Plaquemines Parishes over a 10-day period extending from 6:00 a.m., February 27, 2010 through 6:00 a.m., March 8, 2010.

LDWF biologists removed and disposed of 477 traps during the closure period. To date, a total of 18,449 derelict crab traps have been removed from Louisiana coastal waters during the first seven years of crab trap cleanups (Table 1). Volunteer effort was 191+ boat-days; not included is effort by LDWF. However, volunteer effort has declined through the years resulting in only a single volunteer and no volunteer boats participating in the 2010 program.

The Louisiana Crab Task Force continued to meet and address issues confronting the industry. Legislation supported by the task force and approved during the spring 2010 regular legislative session modified bycatch possession limits and now allows any licensed commercial fisherman holding a gear license, including a crab trap license, to possess any finfish caught under that gear license up to the allowable commercial possession limit. Previous limits restricted crabbers to a maximum of 25 finfish per vessel per day. The Crab Task Force also continued discussions on a variety of topics such as certification of the Louisiana blue crab fishery under the Marine Stewardship Council, fisheries disaster assistance, crab bait availability, labor shortages, impacts of crabmeat imports and legislation impacting the crab industry.

Table 1. Total number of traps removed and volunteer time in boat days from 2004 to 2010

Year	*Traps*	*Boat Days**
2004	6,894	90+
2005	4,623	51+
2006	2,935	31
2007	1,498	14
2008	1,234	3
2009	788	0
2010	477	0
2004-2010	18,449	191+

Special Bait Dealer Permit Program

In recent years, Louisiana saltwater anglers have shown increasing interest and demand for live bait and the live bait fishery has grown to become an important industry in Louisiana. In January, 2010 the Louisiana Wildlife and Fisheries Commission ratified a final rule which allows for the harvest and sale of live bait shrimp and live croaker to the fishing public during closed shrimp season beginning May first of each year until the opening of the spring inshore shrimp season, in addition to between the spring and fall shrimp seasons, and to increase the fee charged for each special bait dealer's permit from $100.00 to $110.00.

MOLLUSC PROGRAM

The Mollusc Program is responsible for the oyster resource on nearly 1.7 million acres of public oyster seed reservations, public seed grounds, and public oyster areas. Seed grounds are designated by the LWFC 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 and the public oyster areas of Calcasieu and Sabine lakes are designated by the legislature. LDWF manages four seed reservations, including one east of the Mississippi River (Bay Gardene), one in the Barataria Bay system (Hackberry Bay), and two in Terrebonne Parish (Sister Lake and Bay Junop).

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

Oyster Harvest

Statewide oyster harvest in 2010 dropped significantly as compared to 2009, falling 55.9% to 6,629,974 pounds of meat (preliminary LDWF trip-ticket data). This marked the lowest oyster harvest since 1966 (4.76M lbs.) and only the third time since 1950 that harvest yielded less than seven million pounds. This drop was due, in part, to reduced oyster abundance on the public oyster grounds, but was largely the result of widespread and extended oyster harvest closures due to the Deepwater Horizon BP oil spill. Due to reduced oyster abundance on the primary public oyster seed grounds east of the Mississippi River, the oyster season was not opened as normally scheduled in September 2010. Therefore, while limited harvest from the public grounds did occur in early 2010 on the public grounds prior to the oil spill (the later part of the 2009/2010 oyster season), no harvest occurred on the public grounds in this area after April 1, 2010. Although national oyster landings for all states has not yet been released, it is likely that the state of Washington will overtake Louisiana as the country's top oyster producer as it did in 2006 following the significant impacts on Louisiana's oyster resource from Hurricanes Katrina and Rita in late 2005. Traditionally, Louisiana produces about 1/3 of all oysters harvested in the U.S. and over 50% of oysters from the Gulf of Mexico states.

Oyster landings in Louisiana are divided between harvest from public oyster areas and private oyster leases. Historically, landings from private leases have comprised 60% to 80% of annual Louisiana oyster landings; in 2010 roughly 72% of the total harvest came from private leases. Over the years, the public oyster grounds have significantly contributed to the annual statewide oyster landings, and, in 2010, landings from the public grounds yielded 1.85 million pounds of oyster meat. In addition, much of the oyster production from the private leases is dependent upon small seed oysters (less than three inches) transplanted from the public grounds to the leases to be grown out for ultimate harvest at a legal and marketable size.

Oysters have been a significant part of the Louisiana economy for many years and routinely have a total economic impact on the state's economy of roughly $300 million. In 2010, the dockside value of oysters was over $24 million (preliminary LDWF Trip Ticket Data). This valuable resource is harvested from a variety of locations from bays to bayous and throughout the coast of the state.

Commercial oyster harvest in Louisiana is typically accomplished using large dredges (no greater than six feet wide) pulled behind oyster vessels called "luggers." Most of the commercial harvest from public oyster seed grounds occurs on the public grounds east of the Mississippi River in St. Bernard and Plaquemines parishes. However, those public oyster grounds were closed for most of 2010 due to low resource availability and the BP oil spill. Seed grounds and reservations are managed with the goal of providing seed oysters for transplant onto private oyster leases. However, two "Sacking Only Areas" exist east of the Mississippi River for the exclusive harvest of sack-sized oysters:

- Portions of Lake Fortuna and Lake Machias
- American/Long Bay

Mechanical dredge harvest in Calcasieu Lake mirrors the dredge harvest in other parts of the state with the exception of dredge size, as Calcasieu dredges are limited to 36 inches in width. On occasion, however, harvest in Calcasieu Lake is still accomplished using traditional hand-tongs. Harvest in Calcasieu Lake during 2010 was very strong as low resource availability and oil spill-related closures impacted harvest in the central and eastern portions of coastal Louisiana. Poor water quality has prohibited harvest in Sabine Lake for many years due to public health concerns, and all oyster harvest in the southwest portion of Louisiana comes from Calcasieu Lake. The state Department of Health and Hospitals, however, completed a sanitary survey of Sabine Lake in 2010 which showed water quality improvements. These results were submitted to the U.S. Food and Drug Administration and a final decision on Sabine Lake's status as an approved water body for oyster harvest is expected in 2011.

Oyster Seasons

State laws mandate that LDWF 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 30 of each year. However, the LWFC is authorized to extend the season beyond April 30 provided sufficient stocks are available for harvest. The LDWF Secretary 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. A law change during the 2008 Louisiana Legislative Session requires that the public grounds only be opened to the taking of seed oysters between the first Wednesday following Labor Day and the second Monday in October. The seed grounds can then be opened to the taking of market-size oysters on the second Monday in October, as well as for harvesting seed oysters.

The 2010/2011 oyster season was significantly reduced with the majority of the public oyster seed grounds remaining closed (see Table 2). Although the Louisiana Wildlife and Fisheries Commission set the oyster season to open in November 2010, a season delay was ordered by the LDWF Secretary Robert Barham for the primary public oyster seed grounds east of the Mississippi River and in

Table 2. Opening and closing dates of the public oyster grounds

Public Oyster Areas	*Season Opening*	*Season Closing*
Primary Public Oyster Seed Grounds east of the Mississippi River, including Lake Borgne	November 15, 2010; but opening delayed	April 1, 2011
Hackberry Bay Public Oyster Seed Reservation	November 15, 2010; but opening delayed	April 1, 2011
Little Lake Public Oyster Seed Ground	November 15, 2010	April 1, 2011
Lake Chien and Lake Felicity Public Oyster Seed Grounds	November 15, 2010	November 16, 2010
Lake Mechant Public Oyster Seed Grounds	October 29, 2010	October 31, 2010
Bay Junop Public Oyster Seed Reservation	November 15, 2010	November 21, 2010
Vermilion, East and West Cote Blanche and Atchafalaya Bay Public Oyster Seed Ground	November 15, 2010	April 1, 2011
Calcasieu Lake Public Oyster Area	Oct. 15, 2010	April 30, 2011
Bay Gardene Public Oyster Seed Reservation; Barataria Bay, Deep Lake, and Lake Tambour Public Oyster Seed Grounds; Sister Lake Public Oyster Seed Reservation; Sabine Lake Public Oyster Area	Season Remained Closed	

Hackberry Bay west of the river. This delay was due to reduced oyster resource availability caused by late summer mortalities and due to the presence of a significant spat set (reproductive event) in some areas.

Biological Sampling

Management of the public oyster grounds and reservations 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. The program also underwent significant changes in 2010 as biological sampling was significantly increased in response to the BP oil spill.

Square-meter sampling increased from 165 total samples to 380 based upon increases in replication from two replicates per station to five. These square-meter samples are collected each July and sampling will also increase again in 2011 as additional sampling stations will be added to the program. 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 LDWF. In 2010, the annual stock assessment report (July 2010) estimated that over 1.2 million barrels of oysters (both seed and sack combined) were available on the public oyster grounds throughout the state - a slight increase from 2009 levels. The majority of this resource (approximately 50%) was located in Calcasieu Lake.

Dredge samples were collected from March through October, and as of November 2010 was increased to also take samples in January, February, and November, such that sampling occurs in all months. Replication was also increased for the dredge sampling program, moving from one replicate per station (in most areas) to three, resulting in significant increases to the total sampling effort. New dredge stations were also added to the program in November 2010. 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 Reef Rehabilitation

These public oyster areas are used heavily by the commercial oyster industry and periodic reef rehabilitation projects (cultch plants) help maintain the productivity of the public grounds. During 2009, federal hurricane disaster funds (Emergency Disaster Rehabilitation Program [EDRP] – Hurricane Katrina/Rita disaster), coupled with state funding allowed cultch planting projects to be undertaken in portions of the Mississippi Sound (St. Bernard Parish), Black Bay (Plaquemines Parish), Lake Chien (Terrebonne Parish), Sister Lake (Terrebonne Parish) and Calcasieu Lake (Cameron Parish). Cultch planting provides settlement surfaces for the attachment of larval oysters by placing suitable hard material on the water bottoms. These projects placed roughly 87,000 cubic yards of crushed concrete and limestone rock on suitable water bottoms in these areas in May/June 2009. The state-funded cultch planting project in Calcasieu Lake was accomplished in the southern portion of the lake in May 2009. This project consisted of placing approximately 7,500 cubic yards of limestone on approximately 15 acres of water bottoms.

Biological monitoring of the cultch plants began immediately and has continued through 2010. During the annual stock assessment sampling on the public oyster seed grounds in July 2010, sample results indicated that the 2009 cultch plants were very successful. Availability estimates based upon biological sampling ranged from 89.9 to 998.2 barrels per acre (one barrel = two sacks).

Oyster Reef Mapping Projects

During 2010, two significant reef-mapping projects were completed on the public oyster seed grounds. Although work began in 2009, a side-scan sonar survey of selected portions of the public oyster seed grounds in Mississippi Sound was completed in January 2010. This project encompassed approximately 53,000 acres of water bottoms and resulted in the identification and evaluation of nearly 10,000 acres of reef/shell habitat. An

additional side-scan sonar project was initiated on over 75,000 acres of public oyster seed grounds in the Black Bay area during the summer of 2010. This project helped to update reef information last collected in the early 1970s, and resulted in the identification and evaluation of over 27,000 acres of reef/shell habitat.

Native Stock Oyster Hatchery

Louisiana State University has begun operation of an experimental oyster hatchery at the LDWF Fisheries Laboratory on Grand Isle, Louisiana. Due to the BP oil spill, the hatchery was used as an experimental area for oil-eating microbes rather than as an oyster hatchery in 2010. Using funds provided by the Emergency Disaster Rehabilitation Program (EDRP – Hurricane Katrina/Rita disaster), LDWF provided a $500,000 grant to LSU to develop an additional oyster hatchery to provide increased amounts of seed oysters to the oyster industry and the public oyster seed grounds. Plans are underway for the size, location, and partnership opportunities for this project.

Oil and Gas Monitoring Within the Public Oyster Areas

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

These assessments identify the type of bottom (soft mud, firm mud, buried shell, exposed shell, oyster reef) and the live oysters that will be impacted by the project. After the assessments are reviewed and the impacts calculated, the project can either be modified to reduce possible impacts or allowed to be permitted as proposed. In 2010, approximately 140 assessments were reviewed by section staff. Recommendation letters, which include recommended permit conditions designed to reduce impacts to oyster resources, were provided to DNR for each project.

Compensation for impacts is required as a condition of each permit issued for projects within the boundaries of the public oyster areas. The amount is calculated using the water bottom assessments and a rate schedule developed by LDWF economists. This rate schedule is available online at http://dnr.louisiana.gov/crm/coastmgt/permitsmitigation/oyster/rate-schedule.pdf. In 2010, approximately $15,000 was collected as compensation for impacts and deposited into the Public Oyster Seed Ground Development Account. State law directs LDWF to use these monies to restore, enhance, and manage oyster resources on the public oyster areas. One such rehabilitation project was initiated in 2008 as a bid package was released to the public to rehabilitate approximately 50 acres of impacted area in Calcasieu Lake. In May 2009, approximately 15 acres was planted with cultch material to rehabilitate oyster resources impacted during a recent gas pipeline installation projects (See above).

Oyster Leasing

The moratorium on the issuance of new oyster leases, at the request of Louisiana Department of Natural Resources, remained in effect throughout 2010. The moratorium was requested in order to reduce the state's liability related to coastal restoration efforts. This moratorium does not affect lease renewals, and 662 renewal applications were processed.

The Oyster Lease Survey Section office is currently located at the University of New Orleans Advanced Technology Center, 2021 Lakeshore Drive, Suite 220. The section continues to maintain a Web site, which provides information to the public about oyster leasing in Louisiana. This Web site contains a searchable Geographic Information System with background maps, DHH closure lines, a database of current leases, landings and harvest statistics

and recent news articles about oysters. The Web site has had thousands of visits since it was developed and placed on the web in March 1998, and is available at: http://oysterlease.wlf.la.gov/oyster/.

FINFISH PROGRAM

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

Fishery-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. Gill nets are set in a crescent shape, open towards the shoreline and then circled several times by the sampling boat to drive those animals present into the net. Trammel net samples are taken monthly from October through March. Seine samples were taken monthly from January through August, and semi-monthly from September through December, until October of 2010. As of October of 2010, seine samples are conducted quarterly. In October of 2010, LDWF greatly expanded fishery-independent finfish sampling by increasing annual gill net samples from 1,008 to 1,167, increasing annual seine samples from 605 to 659 and increasing annual trammel net samples from 252 to 417. This expanded fishery-independent sampling is a result of both an internal analysis of the program, as well as, expanded monitoring due to the Deep Water Horizon disaster of 2010. Hydrological data (conductivity, salinity and water temperature) are 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 2010, 709 (108%) seine samples, 1,056 (90%) gill net samples, and 377 (90%) trammel net samples were completed for a 93% completion rate. Sample completion rates in 2010 were lower due mainly to inaccessibility of sampling sites during the Deep Water Horizon disaster. Seine samples exceeded 100% due to extra sampling conducted in some areas of the state. Sample information for 2010 includes expanded fishery-independent monitoring due to Deep Water Horizon disaster and the change in seine sampling frequency.

Fishery-Dependent Monitoring

The value of commercial landings in Louisiana exceeded $228 million in 2010, a $58 million decrease from the 2009 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 188,000 commercial fishing trips reported in 2010 producing in excess of 780 million pounds of seafood.

Beginning in May 2000, a computerized electronic trip ticket program was developed and made available to dealers. To date, roughly 185 dealers use the computerized program to submit their trip ticket data. Trip ticket information has been used to enhance the accuracy of stock assessments conducted by state and federal fishery management agencies, to extend certain inshore shrimp seasons, thereby providing additional economic opportunity to fishers, led to development of a crop insurance program for oyster growers, and to estimate damages from Hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008.

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

The Department continues to monitor recreational fisheries through the Marine Recreational Fisheries Statistics Survey (MRFSS) in cooperation with NMFS and GSMFC. This fisheries dependent program uses dockside interviews of recreational anglers to determine catch and a telephone survey to determine effort. The table below represents available 2010 data for the number of marine recreational fishing trips taken, the number of anglers participating and the numbers of red drum and spotted seatrout caught in Louisiana waters (Table 3).

Finfish Stock Assessments

In 2010, Department personnel 1) updated and revised the stock assessment of striped mullet, 2) began a stock assessment of blue crab, and 3) began updating and revising the stock assessment of spotted seatrout.

Striped Mullet - This assessment uses 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. The methodology previously used for the mullet assessment, an untuned VPA, was compared to the results from a tuned VPA (VPA-2Box version 3.05, NMFS Toolbox). 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 striped mullet.

Table 3. Marine recreational fishing trips taken in 2010, anglers and numbers of targeted fish caught

Reporting Period	*Number of trips taken*	*Number of anglers*	*Number of red drum caught*	*Number of spotted seatrout caught*
January – February	367,898	195,208	637,630	179,001
March – April	559,726	353,492	882,544	227,317
May – June	901,671	428,010	1,200,739	2,588,298
July – August	583,342	280,621	992,731	1,786,966
September - October	734,257	326,776	1,348,862	2,804,291
November - December	572,142	244,708	886,502	4,128,717

The results of yield per recruit analysis based on the continuity case indicate that if M=0.3 (the value within the range of estimates that allows the lowest allowable harvest), the current fishery is operating above F0.1 and near FMAX with yield near maximum, and SPR near 30%. An M of 0.6 would indicate a more lightly fished stock with the fishery operating below F0.1, with yield being about 83% of maximum and with SPR being near 61%. The results of the VPA-2BOX analysis at M=0.3 over the last three years would indicate a yield of around 94% of maximum and fishing at rates that would provide SPR near 52%, and over the last five years fishing near FMAX and SPR near 42%.

Blue Crab – This assessment uses a catch-survey or Collie-Sissenwine analysis to describe the dynamics of the Louisiana blue crab stock. Estimates of fishing mortality and exploitable biomass will be used in establishing biological reference points. Assessment results, available in 2011, will be used in the fisheries ongoing Marine Stewardship Council's certification process.

Spotted Seatrout – This assessment uses the Age Structured Assessment Program (ASAP2, NMFS Toolbox) to describe the dynamics of the Louisiana spotted seatrout stock. Previous assessments have relied on untuned-VPA. The ASAP uses forward projections that integrate relative-abundance indices into the model fitting process. In addition, the ASAP assumes observed catch-at-age (CAA) is known with error whereas VPA assumes the CAA is known perfectly. Assessment results will be available in 2011.

Finfish Management Actions

January 2010

- Secretary provided with authority to close commercial seasons of reef fishes if quota for species group is filled in federal waters.
- Secretary provided with authority to close recreational seasons of red snapper and greater amberjack if quota is filled in federal waters.
- Recreational fishery for greater amberjack opened on January 1.
- Set 2010 king mackerel commercial season; provided Secretary with authority to close commercial season for king mackerel if quota for species is filled in federal waters.

February 2010

- Commercial large coastal shark season opened on February 4 at 12:01 am, concurrently with adjacent federal waters.
- Present 2010 stock assessment for striped mullet to the LWFC and Legislature.

March 2010

- Issued Notice of Intent to require that Individual Fishing Quota (IFQ) vessel account has been issued and be on board for any vessel to possess or land red snapper, any species of grouper or any tilefish species regardless of where harvested or possessed. Sets requirements for a Vessel Monitoring System and removes closed commercial season for harvest of gag, black and red grouper so as to be compatible with federal seasons.
- Commercial fishery for large coastal shark closed on March 17 at 11:30 p.m.

April 2010

- Recreational and commercial shark seasons closed from April 1 at 12:01 a.m. until June 30.

June 2010

- Commercial large coastal shark season remained closed in state waters. Season had been closed on April 1, but this action continued closure until 2011 season opens.
- Recreational fishery for red snapper opened June 1.

July 2010

- Commercial fishery for king mackerel opened on July 1 at 12:01 a.m.
- Commercial fishery for small coastal shark opened on July 1 at 12:01 a.m.
- Recreational fishery for red snapper closed on July 24 at 12:01 a.m.

August 2010

- Commercial fishery for spotted seatrout opened on August 15.

September 2010

- o Issued Notice of Intent to modify commercial seasons for the harvest of spotted seatrout to run from Jan 2 to December 31 of each year or until the 1 million pound quota is reached and to prohibit the commercial harvest of spotted seatrout within Louisiana waters west of the Mermentau River.

October 2010
- o Recreational fishery for red snapper re-opened on October 1, concurrent with federal special season.
- o Commercial fishery for greater amberjack closed on October 28, concurrent with federal closure.

November 2010
- o Commercial fishery for small coastal shark closed on November 18 at 11:30 p.m.

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

HABITAT PROGRAM

Artificial Reefs

Artificial reefs provide resource habitat benefits while giving anglers rich and abundant fishing areas in otherwise dormant conditions. The Louisiana Artificial Reef Program (LARP) was founded in 1986 through the cooperative efforts of the Louisiana State University 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. Act 100 of the 1986 Legislature established that LDWF would operate the program with logistical support from LSUCFI. LDWF and LSUCFI produced a plan in the fall of 1986 that was accepted by the Louisiana Legislature. The plan outlined the siting, permitting, and monitoring requirements of the program.

LARP was established to use obsolete oil and gas platforms to provide habitat for Louisiana's coastal fishes and fishing opportunities for recreational and commercial harvesters. Federal law and international treaty require oil exploration companies to remove these platforms one year after production ceases. LARP has provided an opportunity for oil companies to contribute to the maintenance of fisheries habitat. Since its inception, 65 oil and gas related companies have participated in the offshore program and donated the jackets of 260 oil and gas structures. During 2010, 26 obsolete oil and gas structures were accepted into the offshore artificial reef program. Previously deployed offshore reef materials also include 40 armored personnel carriers and one offshore tug.

Six deep-water oil and gas platforms have been accepted into the deep-water reef program. Even though these reefs are in water depths in excess of 400 feet, the structure establishing the reef must maintain sufficient profile in the water column to be accepted into LARP. The deployments of the platforms undergo a non-explosive partial removal process which preserves the established biological community with minimal disturbance, maintains fishing opportunities for residents and saves money on the decommissioning of the platform.

LARP also manages a Special Artificial Reef Sites (SARS) program outside LARP's nine artificial reef planning areas and deepwater reef program. Fifteen SARS have been established and continue to be enhanced with additional oil and gas structures. Industry continues to work on the remaining approved SARS projects related to

the 2005 hurricanes. A moratorium is currently in effect on future SARS proposals.

In addition, LARP has developed 28 inshore reefs, primarily low-profile reefs composed of shell and limestone. LARP constructed eight reefs, and twenty others were constructed in association with public conservation and private groups.

In working with one of these groups, eight reefs have been constructed using 1200 reef balls. The four original sites were the first attempt to deploy reef balls in an estuarine setting even though they had been deployed successfully in tropical and oceanic environments.

LARP is working with the Louisiana DOTD to make beneficial use of concrete debris resulting from the destruction of the I-10 Twin Span bridges by Hurricane Katrina to create two artificial reefs in Lake Pontchartrain. In 2010, the first phase of the project resulted in the creation of the South Twin Span Reef. The new reef will provide habitat for marine fisheries species and opportunity for recreational fishers. The second reef is scheduled to be developed in 20ll during the phase II demolition of the bridges. LDWF allocated $915,000 towards the development of two new inshore reefs in Lake Pontchartrain from EDRP2 Program Sub Grant ACF-025-2007-02 (NOAA Grant Number NA07NMF4540373). Approximately 29,000 tons of concrete bridge material from 102 spans will be deployed at the two artificial reefs.

Southeast Area Monitoring and Assessment Program (SEAMAP)

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 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, Winter Shrimp/Groundfish Survey and other plankton and environmental surveys.

LDWF collects samples between the Southwest Pass of the Mississippi River and Pointe au Fer, out to the 120-foot depth contour off the Louisiana coast. Louisiana SEAMAP activities include spring (March-April), summer (June), autumn (September), and winter (December-January) trawl surveys that also collect zooplankton and environmental resource data.

Biological samples are collected using a SEAMAP standard 42-foot trawl to collect juvenile and adult animals. Plankton nets are used to sample early life history stages (eggs and larvae) of marine organisms. Environmental data are collected at all stations.

Surveys were conducted aboard the chartered vessel, R/V Pelican:

- Winter 2010 Survey: Conducted on February 25-28. Thirty three demersal trawl stations and seven plankton stations were sampled successfully for a total of 40 samples.
- Spring 2010 Survey: Conducted on April 16-19. Thirty three demersal trawl stations and seven plankton stations were sampled successfully for a total of 40 samples.
- Summer 2010 Survey: Conducted June 8-11. Twenty three demersal trawl stations and seven plankton stations were sampled successfully for a total of 30 samples.
- Fall 2010 Survey: Conducted September 22-25. Twenty two demersal trawl stations and seven plankton stations were sampled successfully for a total of 29 samples.

Data from all sample cruises, including real-time shrimp and red snapper data from the summer cruise, were entered, verified, and uploaded to the SEAMAP data management system. SEAMAP data are available by request, as are the various SEAMAP publications, including environmental and biological atlases of the Gulf of Mexico for each year from 1983 through the present. More information about SEAMAP is available at the GSMFC Web site: http://www.gsmfc.org.

Oil Spill Contingency Planning and Response
LDWF's Oil Spill Task Force continued in 2009 to develop and implement plans to protect and restore the state's wildlife, fishery, and habitat resources from the adverse effects of oil spills. During this fiscal year, state and federal trustees worked on approximately 20 ongoing oil spill assessment/ restoration plans. In addition, the trustees continued to work on developing a way to estimate amounts and impacts of oil spilled as a result of hurricanes Katrina and Rita.

LDWF participates with other state and federal agencies in planning restoration of hazardous materials sites. Two planning activities continued in 2010: Bayou Trepagnier in St. Charles Parish and Calcasieu River in Calcasieu Parish.

LDWF also evaluated and responded, as needed, to approximately 3,000 oil spill notifications received from Louisiana State Police. These notifications covered a range of hazardous emissions and chemical spills, as well as oil spill related incidents. During 2009, the program was reassigned out of the Office of Fisheries to the Coastal and Nongame Resources Division in the Office of Wildlife. Office of Fisheries will no longer report on this activity.

Statewide Hydrographic Monitoring
LDWF began collecting constant records of salinity, water temperature, and tide level in 1958. This program continued in 2010, cooperatively between LDWF and the U.S. Geological Survey (USGS). Data are collected from 15 stations located from the Pearl River to Calcasieu Pass; details are shown in Table 4. The USGS has converted some

Table 4. Hydrographic monitoring locations across Louisiana

LDWF #	*USGS #*	*Station Name*	*Current Status*
105	301001089442600	Bayou Rigolets at LA 90 near Slidell	Online
112	07374526	Black Bay near Snake Island, Point-a-la-Hache, La.	Online
117	3007220891501	Mississippi Sound at Grand Pass	Online
315	073802516	Barataria Pass at Grand Isle	Online
317	07380251	Barataria Bay North of Grand Isle	Online
320	07380335	Little Lake near Cutoff	Online
327	07380330	Bayou Perot at Point Legard near Cutoff	Online
338	073802512	Hackberry Bay NW of Grand Isle	Online
417	073813498	Caillou Bay SW of Cocodrie	Online
518	07381349	Caillou (Sister) Lake SW of Dulac	Online
622	07387040	Vermilion Bay near Cypremont Pt.	Online
623	07387050	Vermilion Bay Bayou Fearman) near Intracoastal City	Online
730	08017095	North Calcasieu Lake near Hackberry	Online
731	08017118	Calcasieu River near Cameron	Online
732	08017044	Calcasieu River at I-10 at Lake Charles	Online

stations to hurricane resistant hardened platforms to provide more reliable storm surge data across the Louisiana coast.

Field data are collected by USGS, and finished data are provided to LDWF. All sites collect data in near real-time (four-hour lag), and the data are transmitted via satellite from the instrument in the field to the USGS office in Baton Rouge and downloaded to LDWF's database via the Internet. Both internal and external data requests are filled from this database. Once processed, the data are used to support fishery management by, for example, determining how much suitable area of brown shrimp nursery grounds are available each year, and setting season opening dates.

Coastal Wetlands

In 2010, the Fisheries Management staff continued to work with state and federal agencies to develop strategies for slowing the rate of coastal wetlands loss in Louisiana. Following hurricanes Katrina and Rita in 2005, the state of Louisiana embarked on a joint coastal planning process that includes both hurricane protection and coastal wetlands restoration. Louisiana's Master Plan for the coast, first completed in 2007, will be reauthorized in 2012. The state has embarked on a comprehensive modeling project which incorporates many aspects of coastal life from coastal hydrology and geomorphology to the social and economic consequences of coastal change. Fisheries staff participated in review and comment of these models, particularly those that dealt with coastal fisheries. In addition, there were a number of coastal restoration projects moving through the formulation and development process. They include:

- Mississippi River Gulf Outlet (MRGO) restoration and the Violet Diversion studies
- Reauthorization studies of the Caernarvon and Davis Pond Freshwater Diversion projects
- The Myrtle Grove Diversion and Marsh Creation project
- The Morganza to the Gulf hurricane protection levee
- Deepening of the Houma Navigation Canal
- Point au Fer to Caillou Lake shoreline restoration
- Atchafalaya River diversion to Western Terrebonne
- White Ditch Diversion
- The Southwest Louisiana Coastal Plan
- Rabbit Island CIAP project in Calcasieu Lake.

Section staff also participated in evaluation of 10 Coastal Wetlands Planning, Protection and Restoration Act projects for Priority List 19 and 20. Up to four of the 10 projects may be funded annually for engineering and development activities.

Seismic Monitoring

The LDWF Seismic Section was created in 1939 specifically to protect oysters, fish, shrimp, and other wildlife from the effects of seismic exploration. Seismic exploration uses energy waves to generate a profile of sub-surface reflective layers that help define potential oil and gas traps. The energy waves ground by air guns that emit a powerful burst of air at the surface of water bodies, or by large vibrating pads placed on the surface. These projects can occur in sensitive wetlands, water bodies, and uplands. Seismic agents monitor geophysical companies to protect Louisiana's fish and wildlife resources by ensuring compliance with LDWF seismic rules and regulations. During 2010, the Seismic Section monitored 17 projects throughout the state.

Freshwater Diversion Monitoring

Louisiana has a number of freshwater diversion structures in place, the largest of which are the Caernarvon and Davis Pond structures. LDWF Fisheries staff monitor effects of both diversions on the fish and wildlife populations in the Breton Sound and Barataria basins respectively, as well as, participate in planning efforts by the Caernarvon and Davis Pond Interagency Advisory Panels. In 2010, all of Louisiana's freshwater diversion projects were opened in May to help alleviate the impacts of the Deepwater Horizon oil spill on interior marshes. High flows continued throughout the summer and into the fall for both of these structures.

Caernarvon Biological Monitoring
The structure consists of a five-box culvert with each culvert measuring 15 square feet, and is capable of allowing a maximum discharge of 8000 cubic feet per second (cfs). Caernarvon was completed in 1991. Operations management of the structure is assigned to the Louisiana Office of Coastal Protection and Restoration.

Davis Pond Biological Monitoring
The Davis Pond structure consists of four iron-gated 14' x 14' box culverts built into the Mississippi River Levee. The structure was completed in 2002, but construction and alteration projects continued through 2009 as engineers addressed flooding issues in the ponding area. Davis Pond has a maximum discharge capacity of 10,650 cfs.

RESEARCH PROGRAM

Fisheries Research Lab
The Fisheries Research Lab (FRL), located in Grand Isle, has a primary mission to conduct the research required to manage Louisiana's marine, estuarine and freshwater fisheries. The laboratory is made available for the use of other LDWF and non-LDWF entities engaged in fisheries research, management, enforcement, coastal restoration, and marine education. This facility also serves as a field station for Coastal Study Area III in the Barataria Bay estuarine system. The laboratory supports the monitoring of the Freeport Sulfur Mine Reef for the Louisiana Artificial Reef Program, Elmer's Island Wildlife Management Area (WMA) and a local operations center for LDWF enforcement agents. This year's chronology of events was as follows:

- In the spring of 2010, the Fisheries Research Lab secured a grant to participate in the National Coastal Assessment under the Environmental Protection Agency. Fish tissue, sediment, environmental, and water samples were taken at each of 97 sites covering all of coastal Louisiana. Sampling took place from May to September 2010 as part of a nationwide coastal program. During project coordination, the MC252 BP Oil Spill occurred. EPA sampling was completed on time despite concurrent oil spill monitoring operations.

- The Fisheries Research Lab opened its doors to many state and federal agencies during the BP Oil Spill Crisis. The agencies included:

  - Wildlife and Fisheries Wildlife Division
  - LDWF Enforcement
  - U.S. Fish and Wildlife
  - Environmental Protection Agency
  - National Oceanic and Atmospheric Administration (NOAA)
  - National Marine Fisheries Service
  - National Guard
  - Bird Rehabilitation (Tri-State)
  - Numerous Universities
  - Overnight visiting personnel numbered up to 100 individuals on given nights and averaged approximately 60 which stretched FRL bathroom and kitchen facilities.

- The Fisheries Research Lab personnel were responsible for determining actual locations and relative amounts of inshore and offshore oil occurrences which provided valuable information for the Secretary and Assistant Secretary to determine recreational and commercial fishery closures.

- Lab staff created offshore and inshore sampling schemes to monitor oil movements and intrusions.

- Lab staff created beach monitoring at Grand Isle, Elmer's Island, Grand Terre, and Fourchon to verify oil occurrences as well as dolphin and sea turtle strandings.

- FRL personnel coordinated with hundreds of media personnel to cover effects of the spill and actual oil spill monitoring operations.

- Fisheries Research Lab biologists investigated fish kills throughout coastal Louisiana.

- Public calls and/or biologist observations

required collection of water quality data and fish mortality information.

- Biologists responded to dolphin, whale, and sea turtle stranding calls throughout coastal Louisiana.

- Working with the Office of Fisheries, FRL personnel collected shrimp, crabs, and finfish tissue samples following a strict protocol developed by the Food and Drug Administration (FDA) and National Oceanic and Atmospheric Association (NOAA). Samples were forwarded to the Pascagoula NOAA Lab for further testing. Results from tissue samples provided necessary information the Secretary needed to determine recreational and commercial fishery openings.

The Fisheries Research Laboratory is still heavily engaged in oil spill emergency response especially dolphin and sea turtle strandings. Although oil spill emergency response is still a priority at FRL, the LDWF Fisheries Research Laboratory is again shifting into its primary mission and the research aspect of fisheries biology. Research projects include:

- **South East Area Monitoring and Assessment Program (SEAMAP)** - SEAMAP is a fishery independent sampling program conducted in both state waters and the Exclusive Economic Zone (EEZ). This project consists of quarterly cruises which have been conducted for the past 30 years. The primary gear utilized for these cruises are a 40 foot trawl, plankton nets and a CTD for environmental parameters.

- **Vertical Longline Project** – This is designed to map the spatial and temporal distribution of economically important recreational and commercial reef fish. This project also compares populations under different habitat conditions, such as oil platforms, artificial reefs and natural bottom. A hook selectivity study is part of this project.

- **Bottom Longline Project** – This project samples one mile of bottom per set using a standard bottom longline. Benthic feeding species are captured and documented.

- **Red Drum Aging Study** – To fill gaps in population assessments, adult Red Drum are sampled on a monthly basis. Biological parameters are recorded and otoliths are removed for aging. This offshore adult population has not been sampled for decades and the age structure is needed to create an updated stock assessment.

- **Near-Shore Monitoring** – This is an offshore monitoring program resulting from the BP Deep Water Horizon incident. This project is modeled after SEAMAP except cruises are monthly and we will sample into deeper water. The scope of this project involves environmental, population, and tissue monitoring.

- **Tarpon DNA** – This is a tagging program partnered with Florida Fish and Wildlife Commission. Anglers are requested to participate in collecting DNA samples from tarpon prior to their release. Individual markers will be identified and fish can be traced if recaptured.

- **Biodiversity and Relative Abundance of Fish at Artificial Reefs and Corresponding Upright Oil Platforms** – This project incorporates video, hook and line, and diving to record populations in a quarterly sampling scheme at selected sites to determine spatial and temporal distribution of fishes. Sampling will determine which fish species are resident versus transient at these artificial reef sites.

- **Grey Snapper** – Project involves age and growth for assessment purposes. Fecundity at age, diet, and migration will all be determined through otolith, stomach, and gonad analysis and through tagging.

Research Hatchery – A series of tank systems are in the process of being installed at the FRL. There will be closed and open systems that can be manipulated on many different parameters for

future research projects. With the closed system, we will be able to test groups of species under various conditions. This will allow us to determine which conditions provide the highest output for the species in question. The tanks will also be used as holding facilities for numerous other projects from tag retention to growth studies. In addition, we will have a micro-hatchery to raise forage for the fry in the hatchery. The micro-hatchery will grow algae, rotifers, artemia, and other microorganisms to feed developing organisms in the research systems.

Marine Boating Access

Access, Opportunity, and Outreach also creates, enhances, and restores Louisiana's inventory of public boating and fishing access sites. Access sites, such as marinas, boat launches, and fishing piers, serve as doorways to the state's natural resources. In a cooperative effort, LDWF assists local government entities requesting financial assistance in the development and construction of boating and fishing access facilities. To accomplish this, LDWF obligates a portion of its federal funding and Sport Fish Restoration (SFR) funds to match up to 75% of the total costs of these projects. This program funds both freshwater and saltwater projects including the construction of boat ramps, parking areas, docks, bulk heading and fishing piers. A total of 82 projects are complete to date, and another 15 are in various stages of either planning or construction.

Tax revenues from these sites provide economic benefit to the state from consumer use by owners and recreational users. Not strictly limited to site selection and construction oversight duties, the Office of Fisheries also works in concert with local municipalities, media channels and landowners in the marketing and promotion of the sites.

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

The objective of this project is to develop a better understanding of the relationship between wetlands habitats and fisheries productivity in Louisiana, and the efforts to maintain and restore both. Several studies have been performed to help achieve this objective including a Before-After-Control-Impact study with data collected by LDWF in Breton Sound, Mean Trophic Level Index in the Gulf of Mexico, multivariate analyses relating nekton biomass distributions to habitat characteristics, DIDSON hydro-acoustic data analysis, and tissue analyses of samples collected during fieldtrips on caloric content, isotopes, and stomach content, and to model the effect of the diversion using Ecopath with Ecosim software. Further analyses will be performed in the upcoming year, pending results from this year's studies. They have completed roughly 85% of the work that was contracted. They are currently processing and analyzing the samples collected during the late 2010 field sampling trips.

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

City Park is a public park located in the heart of New Orleans. It features two historical waterways and a set of manmade lagoons that connect to Lake Pontchartrain. Bayou St. John, Bayou Metairie and the lagoons have an estuarine influence, yet are still fresh enough to harbor freshwater fishes. The objectives of this project are to reestablishing water flow through the Bayou St. John complex to improve water quality and fisheries habitat through plantings and shoreline alteration and determine habitat utilization by sport fish. Preliminary analysis indicate that the sonic-tagged red drum reintroduced to the system avoid the southern portion of Bayou St. John and are associated with open or moving water in areas closer to Lake Pontchartrain. Also, City Park conducted shoreline planting projects for fisheries habitat improvement and purchased a water quality monitoring system. A series of eight water quality monitoring stations have been installed along Bayou St. John and real-time data is being collected.

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 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. LSU will assist with the analysis of samples. Marine Fisheries sampling crews obtain otoliths from important marine fish. Additional work is added as needed to address age, growth, and reproductive biology of selected finfishes to support stock assessment efforts. This project started on July 1, 1999 and is ongoing.

Evaluating Sport Fish Use of Created Wetlands in the Atchafalaya Delta (F-107)
The objective of this project is to evaluate the sport fish use of submerged aquatic vegetation (SAV) and mudflat habitats in the Atchafalaya Delta. During the year, sampling equipment was tested and developed, and sampling sites were identified in the spring due to hurricanes Gustav and Ike causing the SAV to die. It was determined that the most efficient method of sampling the SAV beds is timed electrofishing transects. They have finished processing all the SAV and fish samples from the 2010 trips and are currently entering the last data for analysis.

Identifying Essential Fish Habitats in Barataria Bay (F-106)
The objective of this project is to develop a better understanding of the relationship between wetlands habitats and fisheries productivity in Louisiana, and the efforts to maintain and restore both. Several studies have been performed to help achieve this objective including a Before-After-Control-Impact study with data collected by LDWF in Breton Sound, Mean Trophic Level Index in the Gulf of Mexico, multivariate analyses relating nekton biomass distributions to habitat characteristics, DIDSON hydro-acoustic data analysis, and tissue analyses of samples collected during fieldtrips on caloric content, isotopes, and stomach content, and to model the effect of the diversion using Ecopath with Ecosim software. Further analyses will be performed in the upcoming year pending results from this year's studies.

Marine Sport Fish Tagging Study (F-124)
This project will develop an alternative estimate of red drum escapement through a tagging study using a diverse partnership among fisheries scientists and volunteer anglers. Angler education is an important component of this project. LSU is a funding and research cooperator. This project started on July 1, 2004 and is scheduled to continue through 2013.

Louisiana Aquatic Outreach (F-136-EO)
Through outreach efforts, LDWF advises beneficiaries on stewardship and best practices in preserving the unique nature of the state's natural resources. Via a strong presence at youth recreational events, industry related expos, and other state sponsored events, LDWF strives to align its efforts with the desires of citizens and foster a community sense of resource and habitat stewardship.

The Aquatic Outreach Program is designed to inform the public about the SFR Program to show that it is a vital funding source for aquatic access, resource enhancement, and management projects in Louisiana. LDWF participated in 16 public events throughout the year to inform attendees of the department's various SFR projects and the importance of purchasing a fishing license. An assortment of printed materials was distributed at these events, as well as an SFR brochure, designed specifically to highlight the funding cycle and projects SFR funding supports. Ground work for new print materials was completed during this time and is scheduled to be printed in FY 10-11.

In addition to increased participation in public events, other avenues of public education were used including an informative lobby display in the LDWF headquarters building in Baton Rouge. The Fisheries Research Lab personnel provided samples and educational facilities for outreach staff. Lab personnel participated in the WETSHOP program, a "hands-on" environmental program for teachers, and assisted the Pontchartrain Institute for Environmental Sciences with their summer educational program. The new lab facility has a classroom and lab space for instruction and hands-on learning. School and community groups have access to the lab for various educational opportunities.

Through participation in outreach events and distribution of educational materials, the Aquatic

Outreach Program message reached over 20,000 Louisiana citizens.

LSU Bivalve Hatchery
The Grand Isle Bivalve Hatchery, led by a university scientist, conducts many important experiments for the oyster fishery in the Gulf of Mexico. The hatchery is responsible for trying to develop disease resistant stocks for distributing to oyster leases, produce oyster larvae for seeding on leases and test innovative grow-out techniques. The scientists working on this project use lab space at the Fisheries Research Lab.

Environmental Protection Agency's (EPA) Environmental Monitoring and Assessment Program (EMAP)
Lab biologists collect data for EMAP, which is a program within the EPA. EMAP provides quantitative assessment of the regional extent of environmental problems measuring status and change in selected indicators of ecological condition. EMAP provides a strategy to identify and bound the extent, magnitude and location of environmental degradation and improvement on a regional scale.

ENVIRONMENTAL AND HABITAT DISASTER RECOVERY

The Office of Fisheries strives to maintain Louisiana's abundant fishery resources and its commercial and recreational opportunities by seeking and efficiently implementing federally funded programs to aid the recreational and commercial fishing industries in recovery from natural and man-made disasters. Since Hurricane Andrew in 1992, the Office of Fisheries has received continual federal appropriations to assist the commercial and recreational fishing industries during times of declared disasters and aid these industries in recovery from the devastation. The recovery efforts include repairs to state fish hatcheries, building of artificial reefs and grant assistance awarded to vital fishing and boating access points.

EMERGENCY DISASTER RELIEF PROGRAM (EDRP) 1

In response to the hurricanes of 2005, Congress authorized its first fishery disaster relief in June 2006 (Public Law 109-234). On Aug. 25, 2006, the U.S. Department of Commerce announced the issuing of a grant to the GSMFC to aid Louisiana, Mississippi, Alabama, Texas and Florida in rebuilding fisheries. The National Oceanic and Atmospheric Administration (NOAA) granted funds to GSMFC for further subgrant to the Gulf Coast states. Louisiana's subgrant awards are: OR-RRR-020-2006-01 entitled "Reseeding, Rehabilitating and Restoring Oyster Reefs" (Job 1); OB-SGR-021-2006-01 entitled "Rehabilitating Oyster Bed and Shrimp Grounds" (Job 2); and CR-M-022-2006-01 entitled "Cooperative Research to Monitor Recovery of Gulf Fisheries" (Job 3).

Following the passage of hurricanes Katrina and Rita, fishermen from across the coast formed the Louisiana Fishing Communities Rebuilding Coalition and identified funding priorities for the recovery of Louisiana's commercial and recreational fisheries. Priorities including debris removal and the evaluation of the status and health of natural resources are addressed by this congressional appropriation.

Projects were designed to be auditable and accountable, and to include local fishing communities and parishes or other local entities to best use local resources. General planning meetings were held among project staff on a regular and continuing basis throughout the planning and implementation period. Scoping and planning meetings were held with state and federal agencies and representatives of the fishing industries to identify needs and opportunities.

Job 1: Reseeding, Rehabilitation and Restoration of Oyster Grounds—Subgrant OR-RRR-020-206-01

Native Stock Oyster Hatchery
Louisiana State University has begun operation of an experimental oyster hatchery at the LDWF Fisheries Laboratory on Grand Isle, Louisiana. Due to the BP oil spill, the hatchery was used as an experimental area for oil-eating microbes rather than as an oyster hatchery in 2010. Using funds

provided by the Emergency Disaster Rehabilitation Program (EDRP – Hurricane Katrina/Rita disaster), LDWF provided a $500,000 grant to LSU to develop an additional oyster hatchery to provide increased amounts of seed oysters to the oyster industry and the public oyster seed grounds. Plans are underway for the size, location, and partnership opportunities for this project.

Oyster Lease Data and Records Management
A contract to develop a data and records management system for the Oyster Lease Survey Section has been issued to Aero-Metric. After months of working with State Purchasing, three scanners were purchased, a large format book scanner, a medium book scanner and a bulk scanner.

Biological Monitoring of Existing Cultch Plants
Biological monitoring of the cultch plants has continued through 2010. During the annual stock assessment sampling on the public oyster seed grounds in July 2010, sample results indicated that the 2009 cultch plants were very successful. Availability estimates based upon biological sampling ranged from 89.9 to 998.2 barrels per acre (one barrel = two sacks).

Job 2: Rehabilitating Oyster Bed and Shrimp Grounds—Subgrant OB-SGR-021-2006-01

Underwater Obstructions/Wet Debris Removal
Identifying underwater obstructions on fishing grounds - LDWF worked with other state and federal agencies using data and maps provided by NOAA and others to identify underwater obstructions which are fouling the fishing grounds or access channels for fishing vessels.

Enhancing state underwater obstruction removal program - LDWF terminated an inter-agency agreement with the Louisiana Department of Natural Resources Office of Conservation in April 2008 for a contract for removal of underwater obstructions within state waters. With the approval of GSMFC, funding for this task has been re-directed to implement cooperative research programs that enhance LDWF's ability to monitor recovery of Gulf of Mexico fisheries.

Debris Removal
LDWF has continued work on the removal of marine debris in state waters under a contract awarded to Crowder-Gulf Joint Venture, Inc. The original contract was structured whereby the contractor is assigned side scan sonar survey and debris removal within individual grids measuring four-square miles for a fixed price of $37,100 per grid. This contract has been amended whereby the contractor is assigned side scan sonar surveys of selective grids for a fixed price of $14,500 per grid and debris removal in selective grids for a fixed price of $23,600. This approach has resulted in cost savings as the costs of debris removal within surveyed grids containing relatively few or particularly small targets may be avoided allowing LDWF greater flexibility in assigning debris removal in selective grids containing high target densities. The contractor uses side scan sonar equipment to survey all water bottoms within each assigned grid to identify the location of debris contacts (waters less than three feet in depth are not surveyed due to sonar's limited effectiveness in shallow waters). Contractor is required to utilize Louisiana resident licensed vessels and crews comprised of Louisiana resident fishermen and charter boat operators to retrieve debris. Marine debris removal work began in July 2007 within portions of Lake Borgne, followed by clean ups within portions of Lake Pontchartrain (Middle Ground), Lake St. Catherine, Calcasieu Lake, Vermilion and Cote Blanche bays, and Barataria and Caminada bays north of Grand Isle. Through June 2010, approximately 440 square miles of the state's shrimp fishing grounds have been cleared of debris at a cost of $4.081 million. In January, 2010, LDWF assigned the contractor with side scan sonar survey of 30 grids located in the southeastern portion of Lake Pontchartrain. Based upon review of the side scan sonar survey data, the contractor was assigned debris removal in 27 of these 30 grids. Marine debris removal operations have concluded in Lake Pontchartrain and LDWF is anticipating delivery and review of the closeout package.

Coastal Habitat Rehabilitation and Enhancement

Two projects are being conducted by the LSU AgCenter:

- Use of Bio-Engineered Reefs for Shore Protection in Coastal Louisiana: Evaluation of Shore Protection and Ecosystem Trade-offs (contracted to LSU AgCenter) - This project compares the effectiveness, sustainability and ecosystem effects of bio-engineered oyster reefs for shoreline protection along eroding medium and low energy sheltered shorelines. Shell oyster reefs were created in Caillou Lake (Sister Lake) in the Terrebonne Basin. The experimental design consists of different reef configurations in medium and low energy sites along the lake shore. In addition, off-bottom oyster racks are also deployed. Data collected at these sites measured: oyster growth rate; cumulative mortality; incidence of Perkinsus marinus and MSX infections; oyster condition; spat recruitment and settlement; nekton biomass; relative shoreline position; vegetation; soil percent organic matter; and Chlorophyll. The goal is to evaluate the effectiveness of bio-engineered reefs as shoreline protection measures. The project is in its third year, and a contract is in process to extend the time period through June 2012.

- Evaluating the effect of marsh management structures on nekton utilization of salt marshes: A novel approach using DIDSON acoustic imaging technology (contracted to LSU AgCenter) - This project examined the effects of water control structures on nekton movement using dual-frequency identification sonar (DIDSON) acoustic imaging technology. The project specifically investigated the role of tide stage, diel periodicity and season on fine scale temporal and spatial patterns of nekton movement through water control structures in salt marshes. The project examined a site in Hopedale, Louisiana and several sites on Calcasieu Lake. The goal is to enhance our understanding of how fish move through these water control structures in the hopes that the findings may lead to development of structures that allow for greater movement. Findings of the Hopedale portion of the study are reported in:

  Kimball ME, Rozas LP, Boswell KM, Cowan (2010) Evaluating the effect of slot size and environmental variables on the passage of estuarine nekton through a water control structure. Journal of Experimental Marine Biology and Ecology 395:181-190.

Data Management System Improvements

LDWF issued an RFP in June of 2009 for the creation of a new Data Management System (DMS). Work on this new data management system began in July of 2010, with the full dissection of the existing system, documenting form and functionality for migration into the new DMS. Construction of relational tables to drive this new system is under way.

Job 3: Cooperative Research to Monitor Recovery of Gulf Fisheries—Subgrant CR-M-022-2006-01

Fishery-Independent Monitoring of the Gulf Fishery Stocks

LDWF contracted with the University of New Orleans to collect and enter fishery-independent data within the Lake Pontchartrain system. Sampling is conducted using standard LDWF protocols at six stations located throughout Lake Pontchartrain and include sampling for both finfish and crustaceans. These data are being used by LDWF to evaluate and manage the recovery of the estuarine fisheries following hurricanes Katrina and Rita. These data are also being used to establish a new "baseline" to further assess any changes within this important area. Data continue to be used to assess assemblage linkages with abiotic variables as well as to examine any changes directly associated with the closure of the Mississippi River Gulf Outlet.

SALT Recreational For-Hire Industry Survey

The survey was administered to 591 holders of a 2008 Louisiana resident charter captain license. The survey is designed to collect vital data on the effects of hurricanes Katrina and Rita and on

the current status of Louisiana's charter industry, as well as provide a method of distributing funds appropriated for charter industry relief. Data compiled from the survey will provide a better understanding of the industry status at present, what it needs to survive, the short-term and long-term impacts of the 2005 hurricanes, as well as other factors affecting the industry.

LSU Louisiana Sea Grant office completed the administration of the survey and collection of data. They are in the process of analyzing their findings to produce the final report which will fulfill their contractual obligation. Cooperative research payments of $250 were made to those charter captains that participated.

Pilot Voluntary For-Hire Reporting System

LDWF contracted with BlueFin data to develop the voluntary for-hire reporting software. The software is computer based and designed to collect information on the number of for-hire anglers, residence of anglers, time fishing, fishing gear, area fished and information on each species caught and the disposition of each species. In an effort to make the software more attractive to the for-hire industry, several additional features were added, such as a calendar feature, additional windows to log expenses and a trip summary window. Only the data effort data will be transmitted to LDWF.

A total of eight outreach meetings were held across the state to introduce the for-hire captains to the software. These meeting were also an opportunity for the for-hire industry to provide feedback to LDWF on additional features or concerns they may have concerning the program. To date, 43 for-hire captains have requested and received a free copy of the software.

Cooperative Research Surveys to Monitor Recovery of Gulf Fisheries

LDWF developed a $15.7 million cooperative research program to monitor the recovery of Louisiana commercial fisheries impacted by hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008. Funding for this program came from a $52.9 million federal fisheries disaster assistance grant from NOAA (NOAA Grant Number NA06NMF4540319) through the GSMFC. LDWF will provide compensation to qualified Louisiana resident commercial fishermen and wholesale/retail seafood dealers who submit completed socioeconomic surveys. These surveys were designed by LDWF economists to capture information on the recovery status of the state's commercial fisheries and fishing industries.

In order to be considered eligible to participate in this program, fishermen and dealers must meet one of the following requirements:

- Louisiana resident commercial fishermen who held a valid 2008 resident commercial fisherman's license and had combined trip ticket-reported sales valued at $5,948 or more during the three-year period Sept. 1, 2005 - Aug. 31, 2008. All saltwater species landings (shrimp, crab, oyster, menhaden and saltwater finfish) are included in total sales, regardless of the fisherman's parish of residence. Freshwater species landings (freshwater finfish and wild-caught crawfish) are included only if the fisherman resided in any of the 26 LDWF-identified hurricane-impacted parishes.
- Louisiana resident wholesale/retail seafood dealers who held a valid 2008 resident wholesale/retail seafood dealer's license and had combined trip ticket reported purchases valued at $20,756 or more during the three-year period Sept. 1, 2005 - Aug. 31, 2008. All saltwater species landings (shrimp, crab, oyster, menhaden and saltwater finfish) are included in total sales, regardless of the wholesale/retail dealer's parish of operation. Freshwater species landings (freshwater finfish and wild-caught crawfish) are included only if the wholesale/retail dealer operation was located in any of the 26 LDWF-identified hurricane-impacted parishes.
- The 26 LDWF-identified hurricane-impacted parishes are: Acadia, Cameron, Lafayette, Pointe Coupee, St. Martin, Ascension, Iberia, Lafourche, St. Bernard, St. Mary, Assumption, Iberville, Livingston, St. Charles, St. Tammany, Avoyelles, Jefferson, Orleans, St. James, Tangipahoa, Calcasieu, Jeff. Davis, Plaquemine, St. John, Terrebonne, Vermilion.

Eligible commercial fishermen and wholesale/retail

dealers received information packets during April 2009 including instructions, application forms and a business-reply envelope. Once required forms were returned, participants received an additional packet containing the Cooperative Research Survey, detailed instructions for completing the survey and a self-addressed business reply envelope to be used in returning the completed survey.

Program parameters were developed, survey instruments created, and coordination with South Central Planning and Development Commission (SCPDC) and an external accounting firm was undertaken to assure clear lines of communication and duties were developed and that resources were available for all necessary tasks. The SCPDC and affiliated planning districts receive and process all information about this cooperative research program. Any questions concerning eligibility, requests for information, etc. are handled by the SCPDC via telephone, mail or the Web site set up for the program at www.scpdc.org/fisheriesassistance.

LDWF hosted a series of public meetings in coastal communities beginning April 21, 2009 to present information about the program and review instructions on participating in and completing cooperative research surveys.

Review of the surveys for completeness by SCPDC, for consistency by LDWF and payment of surveyed participants began in the months following the time period of this report.

A universe of 4,828 potential participants was identified, including 4,433 commercial harvesters and 395 wholesale/retail dealers. As of December 2010 3,214 participating vendors with complete surveys have received funding. The total funds disbursed from this program are $13,239,821 as shown in Table 5. The department and its contractor have completed scanning software tests to process data. All completed surveys have been scanned. Data is being incorporated into computerized databases.

EDRP2 PROGRAM
ASSISTANCE TO COMMERCIAL AND RECREATIONAL FISHERIES–SUB GRANT ACF-025-2007-02

Congress authorized additional funding ($41.3 million) under the U.S. Troop Readiness, Veterans' Care, Katrina Recovery and Iraq Accountability Appropriations Act (Public Law 110-28) to provide assistance to the Gulf of Mexico commercial and recreational fishing industries affected by hurricanes Katrina and Rita. The appropriation to GSMFC for sub grant to the states was approved in August 2007, and Louisiana received legislative budget authority in December 2007. Under this GSMFC Emergency Disaster Recovery Program (EDRP II), Louisiana's two sub grant awards are:

- Economic assistance to commercial fishers, charter boat operators, vessel owners and wholesale/retail seafood dealers (total to LDWF Office of Fisheries = $40 million).
- Domestic Product Marketing and Promotion of Louisiana Wild-Caught Seafood (total to LDWF Seafood Promotion and Marketing Board = $1.3 million).

Assistance to Commercial Fisheries
LDWF contracted with SCPDC to assist with program administration by identifying and receiving responses from eligible participants who chose to participate in the LDWF economic assistance payment program. LDWF developed and provided eligible Louisiana resident commercial fishermen, commercial fishing vessel license holders, charter boat operators and wholesale/retail seafood dealers with a notification of eligibility packet. The packet was mailed to 8,111 commercial fishing participants and 721 charter guides. The packets included background information about the program and the funding source, and a unique, individual "Qualification for Economic Assistance Payments and Statement of Certification Form" identifying each specific economic assistance payment component the participant is qualified to receive. This form must be completed and returned to SCPDC in order to receive assistance payments. This form also includes a statement certifying that the applicant has not been found in violation of any turtle excluder device (TED) or bycatch reduction device (BRD) regulation by

Table 5. Eligible commercial harvesters and wholesale/retail seafood dealers to receive assistance for completing cooperative research surveys (Status as of: 3/29/2011)

Cooperative Research Survey Payment Summary					
Batch #	***Participants***	***Fishers***	***Dealers***	***Funds Issued***	***Check Cut Date***
1	38	27	11	$286,966.48	8/31/2009
2	78	62	16	$415,298.33	9/10/2009
3	67	54	13	$453,149.08	9/17/2009
4	43	40	3	$126,211.89	9/23/2009
5	43	39	4	$161,532.62	9/29/2009
6	39	32	7	$173,925.92	10/6/2009
7	47	42	5	$125,023.07	10/9/2009
8	34	31	3	$164,563.92	10/22/2009
9	59	53	6	$347,406.07	10/30/2009
10	55	46	9	$262,746.94	11/9/2009
11	44	37	7	$277,153.24	11/17/2009
12	42	35	7	$297,104.84	11/23/2009
13	69	66	3	$183,057.54	12/1/2009
14	54	51	3	$170,379.87	12/10/2009
15	126	115	11	$363,465.27	12/15/2009
16	69	62	7	$423,331.61	12/28/2009
17	69	63	6	$267,782.34	1/6/2010
18	65	60	5	$191,693.13	1/14/2010
19	71	69	2	$257,869.05	1/20/2010
20	50	44	6	$256,856.18	2/2/2010
21	83	79	4	$300,230.27	2/9/2010
22	74	69	5	$319,712.39	2/19/2010
23	91	88	3	$342,998.27	3/2/2010
24	44	43	1	$118,501.97	3/15/2010
25	99	93	6	$374,194.41	3/21/2010
26	76	72	4	$246,332.22	3/30/2010
27	111	106	5	$437,450.88	4/8/2010
28	84	37	47	$1,070,104.02	4/14/2010
29	79	41	38	$922,084.44	4/23/2010
30	90	87	3	$297,294.22	4/28/2010
31	109	106	3	$284,439.82	5/4/2010
32	72	70	2	$252,720.76	5/11/2010
33	75	74	1	$209,971.18	5/18/2010
34	60	59	1	$149,124.47	5/26/2010
35	70	69	1	$194,386.71	6/8/2010
36	92	71	21	$486,070.67	6/16/2010
37	101	99	2	$226,525.11	6/28/2010
38	111	106	5	$329,666.11	7/20/2010
39	119	110	9	$457,095.81	7/29/2010
40	96	91	5	$328,000.46	8/9/2010
41	66	66	0	$126,563.69	8/17/2010
42	73	72	1	$150,553.50	8/26/2010
43	89	88	1	$233,016.85	9/10/2010
44	57	55	2	$111,971.98	9/17/2010
45	17	16	1	$41,377.43	9/29/2010
46	1	1	0	$208.83	11/5/2010
47	1	1	0	$3,820.05	12/2/2010
48	12	12	0	$20,757.79	12/9/2010
Total	**3,214**	**2,909**	**305**	**$13,239,821.48**	

either federal or state law enforcement agencies if Louisiana trip ticket data indicated landings of trawl-caught shrimp during the qualifying period. Packets also contained additional instructions, information on the allocation of funds between and among the various fishing sectors and additional forms including a sample "Board Resolution" which is required if the participant is an incorporated business, a "Trip Ticket Report Application Request Form" for use if a participant wants to request a copy of their personal trip ticket report data, and a federal "Form W-9."

LDWF also entered into contract with Postlethwaite and Netterville, a professional accounting firm, to assist with processing payments and developing federal 1099 forms to qualified participants.

The assistance payment program was developed with strict accountability standards. The following risks were considered in program development, although this list is not intended to include every risk that may be inherent within the process:

- Disbursing funds to an ineligible individual/ entity
- Disbursing funds to an incorrect individual/ entity
- Fraudulently changing disbursement amount on a payment
- Lack of inadequate, inconsistent or fraudulent documentation
- Disbursement recorded to incorrect category
- Duplicate line item disbursement
- Un-auditable controls
- Loss of documentation
- Over or underpayment to individual/entity

The process addresses disbursements to qualified, eligible individuals/entities (defined as resident licensed charter boat guides, resident commercial fishermen, resident commercial fishing vessel license holders in the shrimp, oyster, saltwater fish and menhaden fisheries, and resident wholesale/ retail seafood dealers).

A multi-user data management system was developed to capture the data related to these disbursements. The system has a secured connection between offices using an encrypted VPN connection on a server placed in a secure facility to mitigate potential exposure from unsolicited individuals. This accounting system allows the following:

- A user (SCPDC) enters qualification details into the data system from information included in the packets mailed to and returned by potential program participants.
- Another user (LDWF staff) to review the data entered.
- Another user (LDWF program staff) to approve the data entered.
- A user (LDWF staff) to run a report to compile a distribution amount for payment.
- Another user (LDWF program staff, administration, executive staff) to approve the payment, which includes payment details (bank account data).
- Another user (Disbursing Agent – Postlethwaite & Netterville) with the ability to execute payment by paper check or through an EFT upload to a financial institution.

SCPDC began certifying qualifying individuals/ entities (step 1 in the payment process above) during May 2008, and disbursement of assistance payments to qualifying commercial fishers, commercial fishing vessel license holders, wholesale/retail seafood dealers and charter boat operators who were active in the fisheries during the qualifying period (September 2004 - August 2005) began in late June. LDWF paid direct assistance to eligible program participants through 2010 (Table 5).

Program activities were disrupted by the passage of Hurricane Gustav, which crossed the central Louisiana coast on Sept. 1, 2008, followed by Hurricane Ike which crossed the Texas coast on Sept. 13. LDWF headquarters in Baton Rouge closed Aug. 29 - Sept. 4, 2008 for Hurricane Gustav and again on Sept. 12, 2008 for Hurricane Ike. LDWF field offices in coastal parishes were closed for varying amounts of time depending on location between September 1 and 21. All LDWF activities immediately prior to, and for several days after, storm passages were directed toward support

of the state's emergency response plan for search and rescue. All LDWF operational activities were severely disrupted during September. In addition, the office of the South Central Planning and Development Commission was commandeered by the Terrebonne Parish Office of Emergency Preparedness for use as their emergency response command center during the response to Hurricane Ike; SCPDC POLR staff operated in temporary office space from Sept. 11-29, 2008. Postlethwaite & Netterville's office also was closed during early September due to the heavy damage inflicted on Baton Rouge by Hurricane Gustav. Following both storms, LDWF, in conjunction with GSMFC and NOAA Fisheries, began re-evaluating the scopes of work for EDRP1 projects in light of the continuing needs of Gulf of Mexico fisheries still attempting to recover from the impacts of hurricanes Katrina, Rita and Wilma in 2005.

As required by Section 115(c) (1) of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, 2% of the available appropriation was disbursed to fishermen with a demonstrated record of compliance with turtle excluder and bycatch reduction device regulations. LDWF commercial license and trip ticket report files were used to identify shrimp fishermen who were subject to turtle excluder and bycatch reduction device regulations (who reported sales of trawl-caught shrimp on LDWF trip tickets) in the period between September 2004 and August 2005.

Disbursement of assistance payments to qualifying fishermen continued through this reporting period. To date, 1,126 of the 1,556 potentially eligible shrimp fishermen have been paid a total of $597,906 for TED/BRD compliance. A summary of payments is included in Table 6 and Table 7. A total of $825,460 was allocated to TED/BRD compliance payments. In order to fully expend the 2% of the appropriation as required, the balance of TED/BRD funds ($227,554) will be divided equally as a supplemental payment among the 1,126 who have already received the initial $531 TED/BRD payment.

Total funds distributed in both round 1 and round 2 totaled $26,904,995.

ASSISTANCE TO RECREATIONAL FISHERIES

Marina Program

A program designed to assist marinas was developed and implemented to provide economic assistance to the saltwater recreational fishing industry for losses incurred due to hurricanes Katrina and Rita. Eligibility criteria for participating in the program are as follows:

- The marina facility must be open to the general public to provide access to the state's waterways for the purpose of accommodating the needs of recreational saltwater fishermen.
- The facility must have been listed on the LDWF Marine Recreational Fishing Statistical Survey (MRFSS) site register during 2004-2005.
- The owners/lessees of the marina must have allowed LDWF biologists to conduct scheduled MRFSS at their facility during 2008.
- The marina facility must be privately owned. (Publicly owned facilities are not eligible).

The award amount is tiered based on predetermined fishing pressure estimated at each facility, and on measured or estimated storm surge at the facility resulting from hurricanes Katrina or Rita. Payment tier levels are:

Tier 1 - $11,541.14
Tier 2 - $28,599.57
Tier 3 - $51,378.57
Tier 4 - $87,574.00
Tier 5 - $136,093.81

Owners/lessees must complete and submit a socioeconomic survey for payment.

Through the reporting period, a total of 60 marinas were pre-qualified to participate in the assistance program and 58 marinas have been paid a total of $3,439,918. One "hostile" facility has returned a Memorandum of Understanding certifying that they will be cooperative in the MRFSS program and was awarded a base payment of $5,770.57. An additional 10 facilities requested to be evaluated

Table 6. *2nd Supplemental Appropriation* total "first-round" to-date payments (June 2008 – August 2009) to eligible commercial harvesters, commercial fishing vessel license holders, wholesale/retail seafood dealers, and licensed charter boat fishing guides under the Louisiana Fishing Industry Supplement for Hurricane Recovery – Economic Assistance for Louisiana Commercial and Recreational Fishermen and TED-BRD Compliant Fishermen Program

Fishery	*Original Allocation*	*Base / Equal Payment # Paid*	*Tier 1 # Paid*	*Tier 2 # Paid*	*Tier 3 # Paid*	*Total Amount Paid*
Recreational: Charter Captains - Equal Payments						
Charter Captains	$529,586	443				$325,605
Charter Captains Total	**$529,586**	**443**				**$325,605**
Commercial: Harvesters/Vessel Owners - Base Payments						
Harvester	$352,250	4,339				$216,950
Vessel Owner	$231,200	3,262				$163,100
Base Payment Total	**$583,450**	**7,601**	**0**	**0**	**0**	**$380,050**
Tiered Payments by Fishery						
Shrimp Harvester	$5,976,089		450	780	898	$5,232,479
Shrimp Vessel Owner	$5,080,860		448	704	788	$4,706,596
TED/BRD: Equal Payment	$825,460	1,132				$601,092
Shrimp Total	**$11,882,409**	**1,132**	**898**	**1,484**	**1,686**	**$10,540,167**
Crab Harvester	$2,466,160		218	322	371	$2,106,265
Crab Total	**$2,466,160**		**218**	**322**	**371**	**$2,106,265**
Oyster Harvester	$1,782,694		110	154	180	$1,459,214
Oyster Vessel Owner	$1,580,252		123	162	165	$1,393,941
Oyster Total	**$3,362,946**		**233**	**316**	**345**	**$2,853,155**
SW Finfish Harvester	$1,110,565		172	204	242	$963,366
SW Finfish Vessel Owner	$907,202		173	210	237	$871,727
SW **Finfish Total**	**$2,017,767**		**345**	**414**	**479**	**$1,835,093**
Menhaden Vessel Owner	$4,090,357					$4,090,367
Menhaden Total	**$4,090,357**		**0**	**0**	**0**	**$4,090,367**
FW Finfish Harvester	$228,819		64	96	119	$150,813
Wild Crawfish Harvester	$464,572		65	127	170	$322,897
Wild Crawfish Total	**$464,572**		**65**	**127**	**170**	**$322,897**
Wholesale/Retail Seafood Dealer						
W/R Seafood Dealer: Base Payments	$63,400	399				$39,900
W/R Seafood Dealer: Tiered Payments	$1,216,475		73	101	138	$1,024,148
W/R Seafood Dealer Total	**$1,279,875**	**399**	**73**	**101**	**138**	**$1,064,048**
TOTAL	**$26,905,941**	**9,575**	**1896**	**2860**	**3308**	**$23,668,460**

Table 7. *2nd Supplemental Appropriation* total "second-round" to-date (September 2009 – June 2010) payments to eligible commercial harvesters, commercial fishing vessel license holders, wholesale/retail seafood dealers, and licensed charter boat fishing guides under the Louisiana Fishing Industry Supplement for Hurricane Recovery – Economic Assistance for Louisiana Commercial and Recreational Fishermen and TED-BRD Compliant Fishermen Program

Fishery	*Remaining from Original Allocation*	*Base / Equal Payment # Paid*	*Tier 1 # Paid*	*Tier 2 # Paid*	*Tier 3 # Paid*	*Total Amount Paid*
Recreational						
Charter Captains	$203,981	442				$203,320
Charter Captains Total	**$203,981**	**442**				**$203,320**
Commercial Harvesters/Vessel Owners: Tiered Payments by Fishery						
Shrimp Harvester	$650,612	N/A	450	780	898	$650,434
Shrimp Vessel Owner	$593,133	N/A	448	704	788	$593,728
TED/BRD	$224,368	1132				$224,136
Shrimp Total	**$1,468,113**	**1132**	**898**	**1,484**	**1,686**	**$1,468,298**
Crab Harvester	$386,031	N/A	218	322	371	$385,499
Crab Total	**$386,031**	**N/A**	**218**	**322**	**371**	**$385,499**
Oyster Harvester	$270,838	N/A	110	154	180	$270,934
Oyster Vessel Owner	$274,498	N/A	123	162	165	$274,419
Oyster Total	**$545,336**	**N/A**	**233**	**316**	**345**	**$545,353**
SW Finfish Harvester	$101,941	N/A	172	204	242	$101,998
SW Finfish Vessel Owner	$102,270	N/A	173	210	237	$102,133
SW Finfish Total	**$204,211**	**N/A**	**345**	**414**	**479**	**$204,131**
Menhaden Vessel Owner	$0	N/A				$0
	Remaining from Original Allocation	Base / Equal Payment # Paid	Tier 1 # Paid	Tier 2 # Paid	Tier 3 # Paid	Total Amount Paid
Menhaden Total	**$0**	**N/A**	**0**	**0**	**0**	**$0**
FW Finfish Harvester	$80,139	N/A	64	96	119	$80,138
FW Finfish Total	**$80,139**	**N/A**	**64**	**96**	**119**	**$80,138**
Wild Crawfish Harvester	$146,007	N/A	65	127	170	$145,993
Wild Crawfish Total	**$146,007**	**N/A**	**65**	**127**	**170**	**$145,993**
Wholesale/Retail Commercial Seafood Dealer - Tiered Payments						
W/R Seafood Dealer	$203,672	N/A	73	101	138	$203,803
W/R Seafood Dealer Total	**$203,672**	**N/A**	**73**	**101**	**138**	**$203,803**
TOTAL	**$3,237,490**	**1132**	**1896**	**2860**	**3308**	**$3,236,535**

for eligibility. It was determined that seven of the ten were eligible to participate in the program.

Recreational Access - Repairs to Elmer's Island Road

LDWF worked in cooperation with the Louisiana Department of Transportation and Development (DOTD) to restore access to an important coastal waterfront through the repairs of a three-mile limestone road. This road was severely damaged

during Hurricane Katrina, making it impassible due to large breaches. The repair of these breaches has allowed for vehicle passage and access to the important coastal waterfront.

Baitfish Disease Investigations
In the past year, the LSU School of Veterinary Medicine through the primary investigation of Dr John Hawke has discovered and documented several new pathogens and important parasites and diseases of Gulf Killifish (*Fundulus grandis)* that have been collected from wild populations, bait shops, and from the cultured populations in research tanks at LSU Aquaculture Research Stations. Research in this area will continue. Dr Hawke also has developed a powerpoint presentat6ion in conjunction with this research as well as is currently working on a brochure in cooperation with LSU AgCenter on *Recognition and Management of Diseases and Parasites of the Cocahoe Minnow*.

Providing Marine Baitfish to Louisiana Anglers
In the past year, under the primary investigations of Dr. Chris Green and Julie Anderson of the LSU AgCenter, Department of Renewal Natural Resources, progress has been made in developing the cooperative research partnerships to collaborate with parties interested in various aspects of Gulf Killifish culture and holding for the live marine baitfish market. These partnerships have involved the Rockefeller Refuge of the Louisiana Department of Wildlife and Fisheries and associated private Louisiana entities. Data books that include subsections for collaborators entailing initial culture parameters have been completed. New workshops highlighting new research finding are being planned for this fall across the coastal region. Economic feasibility analysis of the different culture and grow out scenarios have been started and should reach completion in the next annual period.

Marina Database Update
LDWF worked in cooperation with LSU to continue marina data collection statewide to aid in the redesign of the existing static marina, boat launch and commercial facility database created by LOSCO into an updatable database. When complete, the database will be made available to the public online and will provide information on marinas, boat launches and commercial facilities such as operational status, location, ramp information, etc.

Hatchery Repairs and Fish Stocking
LDWF completed reconstruction of 40 one-acre ponds and partial reconstruction of 15 one quarter acre ponds in June 2010. A portion of the new construction was funded by the Fishing Industry Supplement for Hurricane Recovery Program.

ECONOMIC DISASTER RELIEF FOR LOUISIANA DUE TO HURRICANES GUSTAV AND IKE

The 2008 hurricanes Gustav and Ike impacted the Louisiana coastline and its fisheries. The Secretary of Commerce declared a fishery resource disaster in the Louisiana Gulf of Mexico on September 17, 2008 due to the devastation of hurricanes Gustav and Ike. The passage of these storms has severely impacted the commercial fishing industry through revenue and infrastructure losses. Louisiana State University Agricultural Center (LSU AgCenter) has estimated a maximum revenue loss to Louisiana fisheries as a result of hurricanes Gustav and Ike in September 2008 to be $70.6 million. The maximum estimated infrastructure loss determined by LSU AgCenter associated with these hurricanes is $84.1 million. (These values were estimates as of September 24, 2008.)

The U.S. Congress appropriated $40 million to Louisiana for fisheries disaster assistance to the commercial fishing industry under sections 308(b) and 308(d) of the Interjeurisdictional Fisheries Act (16 U.S.C. 4107, NOAA Grant NA09NMF4520024). The appropriated funds are vital to the recovery of these important fisheries devastated by the hurricanes. These funds are being sued to provide partial cost reimbursement for uninsured or underinsured commercial fisheries infrastructure (docks, ice houses, vessels, fishing gear, etc.) that were damaged during the storms.

In June 2009, the Office of Fisheries launched the $30 million Federal Fisheries Reimbursement

Program to distribute the appropriated funds to qualified commercial fishermen and wholesale/retail dealers. In order to qualify for the program, individuals must have held a 2008 resident Louisiana commercial fishing or wholesale/retail dealer license and must have reported sales or purchases of saltwater species on LDWF trip tickets during September 1, 2005 through August 31, 2008 (and received by LDWF by November 30, 2008). Eligible participants will receive an initial payment of 50% of the participant's eligible reimbursement amount. The remaining 50% of the reimbursement will be issued after the participant submits acceptable invoices/receipts documenting the use of the entire initial payment on eligible items.

Starting in July 2009, eligible participants began submitting their packets to South Central Planning and Development (SCPDC) in Gray, Louisiana. SCPDC reviews the packets for completion of all necessary documents, contacting the participants to complete documents if necessary, then the completed packets are scanned into the electronic database. Once entered, files are submitted to LDWF staff for review of accuracy. LDWF staff runs weekly batches, reviewing a random 10% selection of vendor files. If more than 5% of the 10% of the vendor files have inaccuracies, the entire batch is sent back to SCPDC for re-review of the files. After re-reviewing the files and correcting any inaccuracies in the database, the files are sent back to LDWF for review. When a less than 5% error rate is found, LDWF approves the batch for initial payment. The first checks were mailed out in September 2009. At the end of 2010, $14,998,093 in initial payment funds have been mailed out.

After receiving their first check, vendors started submitting receipts/invoices to SCPDC in September 2009. Once a vendor has submitted enough receipts/invoices to equal the amount of their first check, the receipts/invoices are scanned into the database. Starting in November 2009, LDWF pulled batches weekly from the database. The batches are then sent to the Louisiana Legislative Auditor's (LLA) office for review of eligibility based on criteria determined by LDWF. After review, the LLA submits reports to LDWF detailing whether or not a vendor submitted enough eligible receipt/invoices. Vendors with enough eligible receipts/invoices are approved for payment by LDWF. Vendors without enough eligible receipts/invoices are placed on an exception report. The exception report is sent to SCPDC, were the vendors are contacted, and given a month to resolve their exception. At the end of the month, the exception vendors are sent back to LLA for re-review. Vendors that resolve their exceptions are approved for payment by LDWF. Vendors that do not resolve their exceptions, are removed from their current batch, and placed back in the database until the exception is resolved. The first checks for the second portion of the program were mailed out December 14, 2009. At the end of 2010, $13,895,163.00 in second payment funds have been mailed out.

From the start of the program in 2009 to the end of 2010, 2,978 vendors have received initial payments (74% of all eligible vendors). Of those, 2,482 vendors also received second payments (83% of first check recipients). A total of $28,893,256.50 in funds has been sent out to eligible participants.

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:

- o Design and initiate projects to collect and analyze data required for population dynamics estimates and other fisheries management projects;
- o Develop scientifically-based management recommendations;
- o Monitor the condition of fish stocks and the fisheries that depend upon them;
- o Provide information transfer and liaison activities with regional fisheries management entities and others;
- o Provide technical support to the Mississippi Commission of Marine Resources (MCMR) in developing fishery management plans, amendments, stock assessments, and technical analysis;
- o Provide a state representative to serve on fisheries related boards, committees, panels, etc. as required; and
- o Provide administrative services, general maintenance, locate funding sources, and other fisheries management support services as required.

2010 consisted of working closely with Federal and state agencies, local fishermen and seafood dealers on hurricane recovery efforts through the Emergency Disaster Recovery Program, designed to assist in the recovery and monitoring of Mississippi seafood industry.

Status

During 2010, public notice was given to open and close commercial seasons for shrimp, oyster, blue crab, king mackerel, red snapper, red drum, and large coastal sharks. Regional management activities included membership on the GSMFC's TCC Artificial Reef Subcommittee, TCC Blue Crab Subcommittee, TCC Data Management Subcommittee, Oyster and Arenarius Technical Task Forces, Menhaden Advisory Committee; Commercial/Recreational Fisheries Advisory Panel, Technical Coordinating Committee, and State/Federal Fisheries Management Committee.

Grant documents and proposals were prepared to secure funding for fisheries management projects under the Sports Fish Restoration Act, the Cooperative Fishery Statistics Program, the Interjurisdictional Fisheries Act, and liaison with Gulf of Mexico Fishery Management Council.

SHELLFISH MANAGEMENT PROGRAM

Objectives

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

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

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

Key Responsibilities

- o Administer Emergency Disaster Recovery Programs I&II
- o Maintain program compliance with the Interstate Shellfish Sanitation Conference NSSP
- o Map Mississippi oyster reefs;
- o Survey potential cultivation and cultch planting sites
- o Cultivate oyster reefs
- o Plant and manage cultch material
- o Assess reef areas
- o Participate in the Natural Resource Damage Assessment (NRDA) with MDEQ and NOAA for Mississippi oysters due to the BP oil spill

Status

The oyster season opened January 1, 2010 and ended April 31, 2010. Oyster harvesters landed 170,176 sacks on 8646 boat trips. Oyster season resumed on November 8, 2010 and ended on December 31, 2010. During the fall season, 12,763 sacks were harvested on 1,618 trips. Oyster harvesting waters are divided geographically into eight major areas. Through daily monitoring, these areas may open and close according to the management plan criteria. Potential cultivation and cultch planting sites were surveyed. A scannable oyster trip ticket was fully implemented and oyster check stations were computerized.

Major Accomplishments

- o The spring and fall 2010 cultch plants were postponed due to the BP oil spill.
- o As part of the stewardship program, oyster harvesters and processors attended a "day on the sound" aboard the R.V. Conservationist to assess the oyster reefs.
- o The Deer Island restoration project provided 1500 bags of oyster shells strategically placed adjacent to Deer Island to prevent erosion.
- o The oyster reefs are continuously being monitored and assessed to determine the status of the resource. This includes the I.J. quarterly samples, 60 station intensive sampling and reef specific samples.
- o The R.V. Conservationist relayed 600 sacks of oysters from Biloxi Bay to Whitehouse reef.

SHRIMP and CRAB MANAGEMENT

Objectives

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

Cooperating state agencies and organizations included University of Southern Mississippi's Center for Marine Science; Mississippi Department of Environmental Quality; Mississippi Department of Wildlife, Fisheries, and Parks; Mississippi State University Cooperative Research and Extension Service, as well as neighboring state marine resource management agencies. In 2010, the Shrimp and Crab Bureau also cooperated on grants with the National Fish and Wildlife Foundation as

well as the Fish America Foundation.

Key Responsibilities

- Long-term monitoring of shrimp populations, in order to make management recommendations. Nearly 300 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 harvest and sales 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. Since 2008, the task force has worked closely with the regional Diamondback Terrapin Work Group and began voluntarily placing TED gear in their traps, as well as encouraging other commercial and recreational crab trap fishermen to address potential incidental catch of this species of concern.
- Development continued on constant recorder instruments across the coast for real-time hydrological monitoring. Real- time data of water temperature, salinity, and stage from ten Mississippi Sound sites were available on the MDMR web site.
- Issuance of Saltwater Scientific Collection Permits. Recipients of Special Permits must first submit an application and, once determined worthy of merit and the permit issued, a complete report of collection or harvesting activity must be submitted to the MDMR. Saltwater scientific collection permits were issued in a manner to protect Mississippi's marine resources while allowing legitimate research and development. Twenty-five 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 431 derelict traps collected in 2010, in cooperation with commercial fishermen. To date, over 18,352 derelict traps have been collected and recycled along the Mississippi Coast, mainly through cooperation with crab fishermen and the USM Gulf Coast Research Laboratory. As a result of these intensive derelict trap removal and recycling efforts, the program again received the First Place EPA Gulf Guardian Award.

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

ARTIFICIAL REEF MANAGEMENT

Objectives

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

Status

The Artificial Reef Bureau has been working with local contractors to get donated concrete material (i.e., concrete culverts, concrete rubble, and concrete light pole anchors) delivered to the

Gulfport and Hancock County staging site. There were two steel hull vessels and 550 Bay Balls deployed during this time frame in reef sites north and south of both Horn and Ship Islands.

Jail House Key was constructed in Hancock County and is located one mile southeast of Buccaneer State Park. There were 55 deployments that totaled 16,852 tons of concrete rubble.

The Mississippi Artificial Reef Rigs to Reef Program is currently working with a petroleum industry representative on a project in the main pass area south of Mississippi. Reef permits were obtained and the deployment should begin this summer.

Mississippi has 16 permitted offshore reefs encompassing approximately 16,000 acres of water bottom. These reefs range in size from one acre to 10,000 acres. To date, the material used for offshore reefs consists of concrete rubble, Goliath Reef Balls, Florida Limestone Pyramids, steel hull vessels (including barges), oil/gas platforms and armored personnel carriers. Mississippi permitted 67 near shore artificial reef sites. These reefs were located inshore so fishermen can take advantage of the fish that inhabit these reefs. The materials of the near shore reefs consist of limestone, crushed concrete, concrete rubble (when water depth allows), and oyster shells. Nearshore reefs were deployed at strategic times of the year when optimum oyster spat would settle for future growth of the reef. Two methods used to monitor and update coordinates and orientation of past artificial reef material deployments were sidescan sonar (used primarily offshore) and sounding with a pole (primarily inshore). Thirteen of the 16 artificial reef sites were located offshore Mississippi and adjacent federal waters and two of the 67 inshore artificial reefs were surveyed using sidescan sonar. Thirty-four inshore reefs were verified using pole sounding. All coordinates obtained from sidescan sonar and soundings are listed on the MDMR web site and available to the public. Maps are also available upon request.

FINFISH MANAGEMENT

Staff worked closely with appropriate federal and state agencies, various user groups, and the public. They strived to promote, conserve, and regulate these fisheries based on the best available biological, social, and economic data. Finfish fisheries dependent and independent programs with associated grants were closely monitored to ensure pre-established goals of each project were achieved. In addition to regular duties, finfish staff has worked with state and federal partners to monitor effects of the Deepwater Horizon oil spill.

MARINE RECREATIONAL FISHERIES STATISTICS SURVEY (MRFSS)

Objectives

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

Status

Recreational fisheries information was collected daily in all three modes through the survey. The data were processed, edited, and submitted to the GSMFC. The information provided a continuous standardized database of marine recreational catch, effort, and participation in the U.S. This data provided various fisheries councils the information necessary to make wise management decisions. Pressure estimates were submitted to the GSMFC according to schedule. These estimates, along with historical productivity, were used to estimate the number of assignments needed to achieve a given quota for each month. The MRFSS Program included a telephone survey of the charter boat fishery and weekly telephone interviews were conducted. The number of telephone interviews was increased to random selection of 40% of the charter boats in Mississippi instead of 10%, as in years past. Data was entered and sent to the GSMFC weekly. The information was used to obtain effort estimates for the charter and head boat sectors.

MARINE COMMERCIAL FISHERIES STATISTICS

Objectives

- o Collect commercial fisheries landings and catch data for Mississippi
- o Collect biological data for selected, commercially important finfish species
- o 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)
- o Expand the trip ticket system.

Status

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

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

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

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

Objectives

- o 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.
- o Continue angler-cooperative tag and release of tripletail and cobia in Mississippi coastal waters and the adjacent Gulf of Mexico, in order to obtain data on seasonal movement patterns
- o 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

- o Conduct regulatory inspections of shellfish processing and transporting facilities to determine compliance with state and federal sanitation and health safety regulations
- o Provide technical advice to the Mississippi seafood processing industry to aid in compliance with seafood sanitation and health safety regulations
- o 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
- o Provide technical advice to those interested in aquaculture, and aid in creating expanded economic and employment opportunities
- o Provide technical expertise in investigating food borne illness reports
- o Undertake research project in line with seafood industry impacts, seafood technical surveys, promotion of Mississippi seafood, seafood safety education, and sanitation training
- o Disseminate information and educate consumers and food handlers in the seafood industry about seafood safety in line with the goals of the Mississippi seafood industry
- o Promote food safety education to the public through participation in public fairs, public meetings, and events

- o Work in collaboration with the public affairs staff to develop and distribute brochures, pamphlets, and fact sheets on proper seafood preparation and handling
- o Work with the MDMR Seafood Marketing Bureau to promote Mississippi seafood products
- o Provide administrative support to the activities of the office, department, and MCMR

Status

A total of 6,220 technical assistance actions were provided. Some examples were:

- o Gave technical advice and support inspections for the Mississippi Department of Agriculture and Commerce, regarding regulated aquaculture activities;
- o Collaborated with the other member state agencies on seafood safety with emphasis on raw seafood handling, risks on eating shellfish, and cooking seafood;
- o 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;
- o Conducted statewide (24 counties) technical assistance and courtesy visits (114) to seafood retail stores, seafood processing facilities, seafood restaurants, grocery stores, roadside seafood vendors, docks and marinas to monitor the impact of the oil spill on the seafood industry and perception of seafood safety;
- o Distributed brochures, posters, fact sheets, and educational materials on the oil spill and seafood safety;
- o Promoted Mississippi and Gulf of Mexico seafood products through distribution of printed materials and "Gulf Safe" brochure updates; and
- o Promoted seafood consumption and awareness of seafood safety through public outreach, education and participation at any seafood festivals and fairs and events along the coast. Participated in 21 public outreach events all over the state.

Shellfish Sanitation and Health Safety Regulatory Activities

- o 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
- o Participated in the shellfish processing plant regulatory review and evaluation by the FDA
- o Received FDA notification that the Mississippi Shellfish Sanitation Program met NSSP requirements
- o Conducted trace back investigations of multi-case foodborne illnesses associated with oyster consumption and positively identified with causative agents***, Norovirus*** and ***Vibrio vulnificus***
- o Collaborated with Mississippi State University Coastal Research Extension Service in research surveys on economic impact assessments of the Mississippi seafood industry and seafood surveys
- o Hosted the Gulf States Director's Meeting, on ***Vibrio vulnificus*** management plans
- o Participated in the Gulf and South Atlantic Shellfish Sanitation Conference at Orange Beach, Florida
- o Attended the Food Safety Month seminar workshop on Food Allergens: "Dealing with Food Allergens: Who's Responsible What you need to know"
- o Collaborated with the MSU and MS-AL Sea Grant in offering Seafood Safety Assurance Workshop as a service to the seafood industry. The workshop was attended by 75 members of the seafood industry.

Types and Number of Seafood Facilities Permitted

There were 55 seafood/sanitation processing permits issued which included 19 shrimp, nine crab and 27 oyster permits. These 55 permits represent 665 inspected seafood units. Examples of seafood sanitation and health safety regulatory activities conducted by the Seafood Technology Bureau include: 523 seafood facility inspections,

6220 technical assistance and associated actions, including water sample collections of processing plant source water samples for testing. Inspections and associated actions were conducted 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;
- Quarterly inspections of all permitted facilities and follow-up inspections as needed, recertification inspections of certified dealers, and issued permits;
- Worked 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;
- Provided seafood dealers with copies of the new FDA Guidelines on recall procedures;
- Implemented FDA regulations on product recall procedures;
- Distributed Recall Audit forms and recall flowcharts of product recall procedures to all seafood dealers;
- Developed Hazard Analysis Critical Control Point (HACCP) plans and sanitation forms for use in molluscan shellfish, shrimp, and crab processing facilities and seafood retailers;
- Implemented FDA-ISSC control measures on *Vibrio parahaemolyticus* that took effect June 20, 2008;
- Prepared and distributed letters to molluscan shellfish dealers regarding updated HACCP plans; and
- Participated at the deliberation of issues and resolutions on shellfish sanitation at the Gulf and South Atlantic States Conference.

TEXAS PARKS AND WILDLIFE DEPARTMENT
COASTAL FISHERIES DIVISION

Mike Ray, Division Director

The Texas Parks and Wildlife Department (TPWD) Coastal Fisheries Division is responsible for making management recommendations regarding aquatic resources along the Texas Gulf Coastal Plain, within Texas bays and estuaries, their watersheds, 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

Coastal Fisheries long-term vision involves Texas coastal ecosystems that are ecologically healthy and that sustain economic and recreational opportunities for 3.5 million anglers and 10 million outdoor enthusiasts. Coastal fisheries is responsible for making fisheries management, habitat conservation, and water resource recommendations that support a coastal resource-based economy valued at more than $2 billion annually. This mission is being accomplished by:

- Maintaining freshwater inflows and instream flows of sufficient quality and quantity to sustain the ecological health of Texas rivers, springs, and estuaries;
- Managing and conserving the marine environment including ecosystems, resources and habitats, and provide fishing and outdoor recreation opportunities; and
- Facilitating the collection, computerization, summary, analysis, and reporting of routine monitoring and special study data, conducting research and coordinating cooperative projects, and recommending, implementing, and evaluating fisheries management measures.

Major Program Activities

Assessments for Marine Resource Management

- Provide annual status assessments of finfish, shrimp, crab, and oyster populations and associated environmental conditions within the marine waters of Texas
- Work with user groups of recreational and commercial anglers and others with interest in marine resources to obtain input into resource issues
- Prepare and update long-range management plans for optimal sustainable yield of marine resources to provide consistent economic and sociological benefits to users and consumers of aquatic products while protecting the resource

Stock Identification and Research

- Manage and enhance existing fishery populations through stock identification, life history studies, and genetic and reproductive physiology research
- Coordinate studies to evaluate better methods to conserve and protect non-targeted aquatic species and to determine optimal uses of aquatic resources

Fisheries Enhancement

- Maintain and enhance existing fish stocks in selected marine habitats
- Provide continuous evaluation of the impact of fish stocking on resident populations and fishing success
- Operate marine fish hatcheries in Corpus Christi, Lake Jackson (Sea Center), and Palacios (Perry R. Bass Marine Fisheries Research Station)

Artificial Reef Program

- Oversee development and maintenance of artificial reefs off the Texas coast
- Evaluate utilization of artificial reefs by marine species, anglers, and divers.

Water Resources—Water Quantity Program

- Partner with other state agencies in statewide water planning and provide resource information to Regional Water Planning Groups to implement SB1 (1997), SB2 (2001) and SB3 (2007).
- Provide comments to Texas Commission on Environmental Quality (TCEQ) on water use

permits and proposed water development projects in order to minimize potential on environmental flows and fish and wildlife resources
- Conduct geographic analysis of wetlands, salinity, and fisheries abundance as part of the freshwater inflow analysis.

Water Resources—Water Quality Program
- Provide comments to TCEQ on discharge permits and actions affecting fish and wildlife resources; and work with TCEQ on the implementation of the Total Maximum Daily Load projects.
- Coordinate and collaborate with TCEQ and other state agencies on water quality policy and permitting activities that affect fish and wildlife resources

Ecosystem Resources Program
- Provide information to the public on the importance of wetlands to fish and wildlife and provide recommendations to the U.S. Army Corps of Engineers (USACE) to lessen impacts on state water and fish and wildlife resources
- Implement habitat restoration projects within the coastal plain with a goal of restoring and maintaining fish and wildlife habitat
- Respond to spills and pollution incidents that cause mortality of fish and wildlife; pursue civil restitution for the value of the fish or wildlife damaged; and oversee restitution projects conducted by the responsible party
- Coordinate and promote partnerships with local, state ,and federal entities on research and planning efforts which maintain and restore aquatic ecosystem health and function
- Calculate freshwater inflow needs to ensure that estuaries, wetlands, and other coastal resources support healthy and productive fishery resources
- Manage multidisciplinary conservation workgroups with a goal of addressing Harmful Algal Blooms (HABs), freshwater inflows, and habitat threats to seagrass habitats
- Assist local communities to conduct hands-on Coastal Expos that raise awareness of the coastal ecosystem to urban and minority populations

Cooperation with Other Resource Management Entities

The Coastal Fisheries Division collaborates extensively with all TPWD Divisions, as well as with many public and private entities in order to perform their mandated functions.

Some federal agencies include: the U.S. Fish & Wildlife Services, U.S. Geological Survey, Environmental Protection Agency, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, U.S. Department of Agriculture, National Marine Fisheries Service, and Natural Resource Conservation Service.

State agencies include: TCEQ, Texas Water Development Board (TWDB), General Land Office (GLO), and Texas Department of Transportation (TxDot).

Commissions and programs include: Gulf of Mexico Fishery Management Council, Gulf States Marine Fisheries Commission, Gulf of Mexico Alliance, Gulf of Mexico Program, Coastal Bend Bays and Estuaries Program, and Galveston Bay Estuary Program.

Other entities include: non-governmental organizations, conservation groups, river authorities, port authorities, industry, county and city governments, and universities.

Resource and Harvest Monitoring

Monitoring the relative abundance of adult fish in Texas bay waters was accomplished using 600-ft gill nets with individual 150-ft sections of three, four, five and six inch stretched mesh. Bag seines (60 ft/ ½ in mesh) and trawls (20 ft/1½ in mesh) are used to determine abundance of juvenile and subadult finfish, shrimp, blue crabs, and associated organisms. Oyster dredges (19½ in wide) were used to collect oyster abundance data. Inshore waters (within 9 nm) were also sampled with trawls. Total sampling effort during FY 2010 included 780 gill net sets; 2160 bag seine tows; 2640 bay and Gulf trawls; and 1200 oyster dredge tows.

Relative abundance of finfish and shellfish in Texas offshore waters is monitored through long-term monitoring programs and a cooperative agreement with the GSMFC. Texas participated in the SEAMAP, a cooperative program between the Gulf States and federal government for collection, management, and dissemination of fishery-independent data and information in the southeast U.S. Data, obtained from this sampling effort, was used in evaluating the "Texas Closure" management measure of the GMFMC Shrimp Management Plan and to provide information on shrimp and groundfish stocks in the northern Gulf from inshore waters to 50 fm. In fulfillment of SEAMAP requirements, the TPWD collected 240 Gulf trawls during 2010.

Sport landings (private and guided boat) and associated angler activities were derived from on-site creel interviews of recreational anglers at the completion of their trips. Roving trailer and wet slip counts were used to assess relative pressure at sampling sites. Relative pressure was used to determine how often a site should be selected for a survey; higher use sites are surveyed more often than low use sites. A total of 1049 survey days were spent to estimate landings and pressure of private and party boat fishermen.

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

Crab Trap Cleanup Program

During the 2010 closure held February 19-28, a minimum of 203 volunteers using 69 vessels expended 1,624 man-hours of effort (plus additional TPWD staff time) to remove 1,588 derelict traps coastwide. This effort brings the total number of traps removed since the program began in 2002 to 27,562. Seventy-one percent of the traps have been removed from Galveston Bay (40%) and San Antonio Bay (32%). Additionally, more than 30 donors contributed monies, materials, time, site use, promotional services, and other assistance to help facilitate the program.

Research

The Perry R. Bass Marine Fisheries Research Station (Palacios) provided information and techniques necessary for improvement of Texas fisheries management strategies. Efforts to improve management or restoration of marine species were directed toward research in life history and genetics of important recreational and commercial species. In the past year, genetic studies were conducted on alligator gar and southern flounder. Collection and processing of genetic samples from these species continued, and progress reports were completed as needed for both genetic projects. A cooperative project with Texas A&M University-Galveston (Dr. Andre Landry), on species identification of juvenile snook, was continued. A cooperative project with NMFS Law Enforcement to identify species of commercially marketed shrimp using DNA sequencing was continued. A life history study on gray snapper age, growth, and reproduction was continued. Temperature tolerance studies of juvenile red drum and larval southern flounder were initiated; data was collected and analyzed for both species. Otoliths were collected from red drum and spotted seatrout to estimate age structure of Texas populations and update age-length keys for these fish. A 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, black drum, red drum, spotted seatrout, grey snapper, vermillion snapper, grey triggerfish, and sheepshead. A cooperative project with Texas A&M University (Dr. John Gold) to evaluate effectiveness of red drum enhancement efforts using DNA microsatelite fingerprinting of captive red drum broodstock and red drum collected in routine monitoring gillnets was completed. 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.

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 the 2010 fiscal year, a total of 22.9 million red drum fingerlings, 2.0 million spotted seatrout fingerlings which averaged ± s.e. 35.2 ± 0.4 mm TL and 35.3±1.2 mm TL, respectively, were released into marine waters for purposes of stock enhancement. A total of 1.4 million red drum fingerlings with a mean size ± s.e. of 36.1 ± 0.8 mm TL were released into three freshwater reservoirs. Also, a small number (9,446) of southern flounder fingerlings, which averaged ± s.e. 77.3 ±16.7 mm TL, were reared at state fish hatcheries and stocked into Texas waters.

Hatchery research included the improvement of southern flounder broodfish procurement techniques, advances in spawning captive southern flounder, gender ID, and investigations of sperm cryopreservation methods. Technical information regarding 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 55,630 visitors in 2010. During the year, facility staff greeted their one millionth guest (1997-2010). The Marine Development Center toured 3,150 visitors, and the PRB satellite pond facility received 12 visitors. These facilities, touted as the world's largest red drum hatcheries, represent a unique merger of fisheries science and visitor education.

Habitat Protection

In FY 2010, the Ecosystem Resources Program (ERP) staff played a significant role in initiating and implementing numerous coastal restoration projects along the Texas Coast. As part of the settlement for the Natural Resource Damage Claim against the Chevron in Orange County, restoration was completed on approximately 87 acres of coastal marsh/shallow water complex which included 30 acres of wet prairie habitat in the Lower Neches Wildlife Management Area in the Sabine Lake System. Working with other Natural Resource Damage Assessment (NRDA) Trustees, TPWD staff was the lead agency overseeing project implementation with NRDA and Wildlife Staff working cooperatively to formulate this innovative project that directly restored marsh and restored hydrologic pathways to improve the health of an entire marsh system. Staff also worked with NRDA Trustees to conduct baseline sampling at 21 sites along the Texas coast (July, August and September) as a precursor to potential Deepwater Horizon impacts. Approximately 194 rehabilitated birds have been released in Texas; 188 of which were brown pelicans. Most birds have been banded for future tracking.

Project planning continued on the Keith Lake Fish Pass Project. This project will lead to the conservation and restoration of numerous coastal habitats including fresh to saline intertidal marsh. TPWD continues to lead a multi-agency workgroup that focuses on developing and implementing restoration projects to ensure the long-term health of marshes in the Salt Bayou system. TPWD wrote and submitted grant proposals to assist a local NGO in the acquisition of the Settegast Road tract on Galveston Island, to restore seven acres of intertidal marsh in Dickinson Bayou and to implement the Dagger and Ransom Island Restoration Project.

The ERP staff worked with partners (TPWD Wildlife staff, Golden Pass Liquid Natural Gas (GPLNG) Terminal, Jefferson County, and Ducks Unlimited) to beneficially utilize 2.7 million cubic yards of dredged material from GPLNG's shipping berth to restore 1,200 acres of marsh in the J.D. Murphree Wildlife Management Area. Staff utilized Hurricane Ike Fishery Disaster funds from NOAA to conduct surveys and engineering work to convince GPLNG staff that their dredged material

could be utilized to restore marsh in the adjacent wildlife management area. Due to the cost savings for GPLNG, this partner has committed to working with TPWD to restore marsh associated with their future dredging cycles. This commitment could lead to the restoration of between 900 to 1,200 acres per year. The initial restoration target of 37.5 acres from funds from the NOAA Hurricane Ike grant has been used as the catalyst to capitalize on the needs and efforts of all partners and has the potential to result in 9,000-12,000 acres restored in the next ten years.

Engineering was completed for the Old River Cove shoreline protection project. This joint project between ERP and Wildlife Staff will construct 2,200 feet of rock breakwater and restore five acres of tidal marsh in Sabine Lake. This breakwater will halt erosion that threatens to disrupt the hydrology of the freshwater tidal marshes in the Old River Cover Unit of the Lower Neches Wildlife Management Area. Project construction should be completed in FY 2011.

The ERP staff spent significant time reviewing 198 Section 404/10 permit applications directly impacting coastal natural resources. Staff continued to work with the Wildlife Division and other land managers to elevate the effectiveness of mitigation projects on department managed and privately held lands. Additional efforts to track other Texas agency comments to TPWD comments on permits was initiated in 2010 in response to the HB 3391. Staff reviewed and provided comments for TPWD Outdoor Recreation Grants, conducted natural resource inspections as required for coastal TPWD Infrastructure projects, and participated in risk assessments for a species white list.

Staff participated in various Interagency Coordination Teams (ICT) for federal projects administered by the U. S. Army Corps of Engineers (USACE). These projects included, Houston-Galveston Ship Channels, Matagorda Ship Channel Improvement ICT, Freeport Channel ICT, Clear Creek Flood Damage Reduction ICT, GIWW-Corpus Christi to Port Isabel ICT, and the Sabine-Neches Waterway ICT. Staff also was involved with coordination with Harris County Flood Control District on numerous federal flood control projects including Hall's Bayou, Buffalo Bayou and Hunting Bayou. Staff participation provided the primary input for the State regarding the impact to fish and wildlife resources from these projects to the federal government and project proponents.

The Ecosystem Resources Program staff was also involved in numerous planning groups including the Dickinson Bayou Watershed Planning Group, the Gulf of Mexico Alliance, Southeast Aquatic Partnership, and the multi-stakeholder Executive Councils and subcommittees of the local Estuary Programs (Galveston Bay Estuary Program, Coastal Bend Bays Foundation, and the Coastal Bend Bay and Estuaries Program). TPWD has played a lead role in the Gulf of Mexico Alliance in establishing regional sediment management as a tool for coastal restoration and maintenance, and in changing the federal standard to recognize dredged material as a coastal resource rather than a waste product.

Staff continues to work with land trusts and land conservancy organizations on projects along the coast. These organizations include the Texas Nature Conservancy, Legacy Land Trust, Coastal Bend Land Trust, Scenic Galveston, Galveston Bay Foundation, Trust for Public Land, Friends of Galveston Island State Park, Audubon Texas, Gulf Coast Joint Ventures, and the Conservation Fund. Staff provides technical information, supports biological assessments, and participates in technical advisory committees. These efforts assisted our conservation partners in receiving grant funds to acquire significant land tracts for conservation and outdoor recreation in Galveston, Chambers, and Victoria Counties.

Staff coordination and assistance with fish and wildlife assessments due to algal blooms, pollution and freeze events occurred in 2010. Early in January 2010, a cold weather event impacted about 51,000 fish and stranded over 430 sea turtles. This event had less fish mortality and higher sea turtle mortality than three freezes that occurred in 1980s. The largest impact to game fish appeared to be spotted seatrout in the San Antonio Bay area

and gray snapper in the lower Laguna Madre. Of the sea turtles that Coastal Fisheries and Law Enforcement staff picked up, 130 turtles were taken to rehabilitation facilities (Sea Turtles, Inc. and the Texas State Aquarium) for recovery. All turtles were green sea turtles except for two loggerheads. It is believed that the weeks of cool weather that preceded this event (December was one of the coolest on record) allowed fish to acclimate and move to deeper water.

Hurricane Alex impacts to Lower Laguna Madre/ Arroyo Colorado occurred following the June 2010 passage of the storm through south Texas and Mexico. Large amounts of rainfall from the storm and flooding in Mexico and into the Rio Grande River caused the river to crest over 59 feet. This flooding filled up the associated floodways and canals and the Arroyo Colorado resulting in the necessary release of large amounts of freshwater into the lower Laguna Madre (LLM). This large freshet caused salinities to remain low (near 0 ppt) for over three months in the LLM and decrease salinities into the Landcut of the upper Laguna Madre ecosystem. Potential impacts to aquatic resources continue to be evaluated through the ERP staff, fisheries independent monitoring program, and the ongoing special studies program (regarding salinity changes in LLM before and after Hurricanes Dolly and Alex passages).

Other algal blooms that staff assessed included the long-standing red tide that occurred from September 2009 through January 2010. At least 3.5 million fish were killed along the Gulf coast and passes. Other blooms included the *Dinophysis* bloom that occurred during the time of a regional oysterfest and caused the closure of local bays for oyster harvest and the recall of oysters that had been harvested. No human health impacts were reported.

The regulation that went into effect May 1, 2006 affected all boaters who venture into the Redfish Bay State Scientific Area (RBSSA). The regulation makes it illegal to destroy any of the five species of seagrasses found throughout RBSSA when boating through a seagrass area. The area has about 50 square miles (32,000 acres) of prime fishing habitat, including 14,000 acres of submerged seagrass beds, dominated by turtle grass (*Thalassia testudinum*) and shoal grass (*Halodule wrightii*) In 2010, TPWD staff continued to collect field data and aerial photography to document the impact of the regulation on seagrass meadows within the RBSSA and prepare a proposal to extend the designation for this area for submission to the TPWD Commission.

TPWD hosted The Freshwater Inflows: 2010 and Beyond Conference from February 8-10, 2010, in Corpus Christi with 114 attendees and eight posters presented. Attendance was less than expected based on numbers at previous similar conferences, but heightened travel and budget restrictions for state and federal agencies in 2010 resulted in decreased attendance in multiple conferences this fiscal year (including Freshwater Inflows). Digital versions of the conference proceedings were mailed to participants during FY 2011.

TPWD continued hosting the multi-agency Texas Seagrass Monitoring workgroup which is moving forward in refining a proposed statewide seagrass monitoring program. During 2010, various members initiated two pilot studies to test a proposed monitoring plan. Furthermore, the workgroup continued the process of writing proceedings for the Seagrass Conservation Plan Review Workshop held in 2009. This document will review the progress made in the implementation of the Seagrass Conservation Plan since 1999 and make recommended updates.

TPWD coastal ecologists participated in a wide variety of activities that involve protection and restoration of coastal habitats beneficial to fish and wildlife including the review of Applications for Permit to Introduce fish, shellfish or aquatic plants into Public Waters of Texas. Other activities included Coastal Expo where eight events were held along the coast of Texas. Other areas where TPWD staff assisted other agencies with their research or cleanup efforts included ULM Rookery Island Cleanup hosted by USFWS and CBBEP, and the USFWS Colonial Waterbird Count, Coastal Bend chapter of Audubon assisted the Conserve Wildlife Foundation of New Jersey with

capturing, recapturing, banding, and tagging Red knots with geolocators to study migration patterns. This project is one of the Shorebird Recovery Projects sponsored by the Manomet Center for Conservation Sciences (annual and not ongoing throughout the year).

Artificial Reef Program

The Artificial Reef Program created several new reef sites. It was responsible for maintaining 63 permitted reef sites, 10 USCG required marker buoys (six permanent and four temporary), and two mooring buoys in the Outer Continental Shelf area of the Gulf of Mexico in FY2010. The Program received 11 petroleum structures and over $2.3 million in donations. All of the structures were towed to existing reef sites. Four other petroleum donation agreements were signed during FY2010 and are in various stages of completion.

Progress was made in the nearshore reef program. The Matagorda nearshore reef (BA-439) permit was received from the US Army Corps of Engineers. Investigations continued on the Corpus Christi nearshore reef site location. An archeology survey was planned for the George Vancouver Liberty Ship reef (BA-336). Nearshore reef work included the addition of 273 tons of concrete to the Vancouver reef. The materials for the project were located and stored by the Coastal Conservation Association – Texas Chapter. The CCA also donated $50,000 to the Artificial Reef Program to assist in the total reefing cost, which totaled $98,000. Other materials were collected and moved to storage facilities for future reefing.

The reef program received $1.5 million in Coastal Impact Assistance Program funds for several nearshore reefing projects. In addition, a Google Earth map was created and linked to the reef program's webpage. The map allows viewers to get information on each TPWD reef site and download PDF versions of surveys. Several You-tube videos are linked to the map showing footage from artificial reefs.

Due to the British Petroleum Gulf oil spill, the program's dive vessel contractor moved its boat to Louisiana waters to assist in the cleanup. No biological monitoring was conducted.

Legislative and Regulatory Changes

- ***Legislative Actions:*** The Texas Legislature was not in session during FY 2010.
- ***Texas Parks and Wildlife Commission (TPWC) Rule-making Actions:*** Several new rules regarding saltwater fishing were approved by the TPWC.
  1. Added the following definitions regarding oysters and oyster harvest for clarification of current rules:
     a Barrel of oysters
     b Natural oyster bed
     c Open season
  2. Created new sections in 31 TAC Chapter 57 concerning the Statewide Recreational and Commercial Fishing Proclamation, and repealed the same from 31 TAC Chapter 65. The change is necessary for two reasons.
     a The relocation of rules regarding recreational and commercial fishing to Chapter 57 is to make the department's rules more intuitively navigable. Most persons would not intuitively consult a chapter titled "Wildlife" for rules regarding recreational or commercial fishing.
     b The reason for separating commercial fishing regulations from recreational fishing regulations is to provide for greater administrative efficiency.
  3. Removed the self-contained expiration date on the Redfish Bay Scientific Area (RBSSA).
     a In 2006, the Commission reauthorized the RBSSA, effective until June 30, 2010 and prohibited the uprooting of seagrasses within the area. Scientific research, following extensive efforts by staff to educate boaters, indicates that seagrasses are being protected by the current regulation. Therefore the department believes that continuation of the Redfish Bay State Scientific Area without a term limit is warranted.
     b In addition, the adopted rule replaced previous taxonomic references in order to be consistent with the scientific nomenclature.

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 Service 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 Service administered programs to conserve, protect, and manage living marine resources in a way that ensures their continuation as functioning components of marine ecosystems, affords economic opportunities, and enhances the quality of life for the American public. These programs include services and products to support fishery conservation and management; protected species and habitat conservation; stewardship of international marine resources; law enforcement activities for marine mammals, endangered species, and regulated fisheries; scientific and technical aspects of marine fisheries research; seafood inspection; and more.

The NOAA Fisheries Service 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. The SERO planned, organized, and implemented marine resource conservation and management through a range of domestic and international programs and provided program planning and evaluation, budgeting, technical and administrative support to regional fishery management councils.

FISHERY CONSERVATION AND MANAGEMENT

Gulf Shrimp Fishery

Annual Texas Closure

The annual closure allows brown shrimp to reach a larger (and more valuable) size before harvest, preventing discard and waste of shrimp smaller than the preferred market size. For 2010, commercial shrimp fishing in federal waters off Texas was closed May 15 through July 15.

Shrimp Effort Analysis for Possible Time-Area Closure

The red snapper rebuilding plan requires NOAA Fisheries Service to implement a time-area closure, as needed, to constrain shrimp effort (and associated bycatch mortality of red snapper) to a target level. This closure is to occur within a designated area of the north-central and western Gulf of Mexico where high juvenile red snapper bycatch occurs. The bycatch reduction target is currently specified as 74% less than the 2001-2003 red snapper bycatch mortality level. This target/threshold is to be relaxed over time, beginning in 2011 as the red snapper stock rebuilds. No closure was necessary during the 2010 calendar year because shrimp effort within the designated area was lower than the 74% target.

Re-Certification of Bycatch Reduction Devices (BRDs) for the Shrimp Fishery

In 2008, NOAA Fisheries Service published a final rule that, in part, provisionally certified the Extended Funnel BRD and the Composite Panel BRD through February 16, 2010. Because no new information exists to decertify these BRDs, NOAA Fisheries Service published a final rule May 24, 2010, to provisionally recertify these BRDs for an additional two years. Having a wider variety of more efficient BRDs for use in the fishery allows fishermen to choose the most effective BRD for the specific local fishing conditions. The goal of this rulemaking is to improve bycatch reduction in the shrimp fishery to better meet the requirements of National Standard 9.

Gulf Reef Fish Fishery

Red snapper Individual Fishing Quota (IFQ) Program

NOAA Fisheries Service issued IFQ allocation to 432 shareholders in 2010, and fishermen

landed 3.06 million pounds (mp), or 96% of the commercial quota.

Grouper/Tilefish IFQ Program
NOAA Fisheries Service issued IFQ allocation to 766 shareholders in 2010. In 2010, fishermen landed 486,081 pounds gutted weight (gw) (35%) of the commercial gag quota, 2.898 mp gw (50) of the commercial red grouper quota, and 137,688 pounds gw (33%) of the commercial "other" shallow-water grouper quota. Additionally, fishermen landed 624,762 pounds gw (61%) of the commercial deep-water grouper quota and 249,708 pounds gw (57%) of the commercial tilefish quota.

Supplemental Rule for Amendment 29 to the Reef Fish Fishery Management Plan (Grouper/Tilefish IFQ Program)
On March 1, 2010, NOAA Fisheries Service published a supplement to the rule implementing Amendment 29. This supplemental rule removed several measures constraining harvest of shallow-water grouper species, which should have been removed in the Amendment 29 final rule, further specified criteria for approval of new landing locations for both the red snapper IFQ program and grouper and tilefish IFQ program, and provided a definition of "offloading" for IFQ participants.

Red Snapper Regulatory Amendment (2010 Total Allowable Catch (TAC) Increase)
At its February 2010 meeting, the Gulf of Mexico Fishery Management Council (Council) approved a regulatory amendment to increase red snapper TAC to 6.945 million pounds (mp) based on the recommendations of its Scientific and Statistical Committee. NOAA Fisheries Service published a final rule on May 3, 2010, effective June 2, 2010, which increased the commercial and recreational red snapper quotas accordingly, to 3.542 mp and 3.403 mp, respectively. The final rule also announced NOAA Fisheries Service's decision to close the recreational red snapper fishery at 12:01 a.m. on July 24, 2010, based on a projection that the recreational sector would meet its quota on or before that date.

Amendment 31 to the Reef Fish Fishery Management Plan (Sea Turtle Interaction with Bottom Longline Gear)
The Council's Amendment 31 established long-term measures to reduce the number of sea turtle takes in the bottom longline component of the reef fish fishery, including: a longline endorsement provided only to federally-permitted vessels with demonstrated average annual landings of 40,000 pounds of reef fish taken by fish traps or longline gear during 1999-2007; a prohibition on the use of bottom longline gear to fish for reef fish shoreward of the 35-fathom contour from June through August (the existing 20-fathom boundary would apply the remainder of the year); and a requirement that the total number of hooks onboard a vessel in the eastern Gulf of Mexico with longline gear be restricted to 1,000, of which only 750 can be rigged for fishing. These regulations became effective May 26, 2010.

Deepwater Horizon (DWH)/BP Oil Spill Rulemaking (Federal Fishery Closure for Seafood Safety)
On May 2, 2010, NOAA Fisheries Service responded to the April 20, 2010, DWH/BP Oil Spill by closing federal waters in the Gulf of Mexico affected by the oil spill through an emergency rule. Due to the evolving nature of the oil spill, NOAA Fisheries Service revised the closed area in a second emergency rule that became effective May 7, 2010. Subsequently, NOAA Fisheries Service issued a third emergency rule to establish a more effective process to revise the spatial and temporal scale of the area closed to all fishing, as needed, in response to new information. The third emergency rule, which became effective May 11, 2010, allowed NOAA Fisheries Service to alter the extent of the closed area through a public notice process. At its maximum, the closed area covered 88,522 square miles; approximately 37 of the federal waters in the Gulf of Mexico. Currently, 1,041 square miles (0.4% of the Gulf of Mexico federal waters) are still closed in the area immediately surrounding the well head.

Temporary Rule to Implement Accountability Measures for Commercial and Recreational Greater Amberjack Fisheries
In accordance with established accountability measures, NOAA Fisheries Service published

a rule, effective June 22, 2010, which reduced the 2010 commercial and recreational greater amberjack quotas from 503,000 pounds to 373,072 pounds and from 1,368,000 pounds to 1,243,184 pounds, respectively, to account for 2009 quota overages.

Gag Interim Rule
Pending a re-run of the 2009 gag stock assessment update, the Council requested NOAA Fisheries Service publish an interim rule that would release 100,000 pounds of gag quota to the commercial IFQ program and temporarily prohibit recreational harvest of that species until a recreational fishing season is established through subsequent rulemaking. The interim rule, which became effective January 1, 2011, also prohibited the use of red grouper multi-use allocation in the grouper-tilefish IFQ program.

Red Grouper Regulatory Amendment (2011 TAC Reduction)
The Council submitted a regulatory amendment reducing red grouper TAC from 7.57 mp to 5.68 mp. Based on the interim allocation between the commercial and recreational sector, this created a 4.32 mp commercial quota and a 1.36 mp recreational catch target. A final rule implementing the amendment published December 1, 2010, effective January 1, 2011. In recent years, neither sector has landed their red grouper allocation.

Greater Amberjack Regulatory Amendment (Fixed Seasonal Closure)
In December 2010, the Council submitted a regulatory amendment for review and implementation by the Secretary of Commerce (Secretary). The amendment proposes to establish a two-month seasonal closure of recreational fishing for greater amberjack during June and July of each year. The proposed rule is under review by NOAA Fisheries Service.

Red Snapper Regulatory Amendment (2011 Total Allowable Catch (TAC) Increase)
In December 2010, the Council submitted a regulatory amendment for review and implementation by the Secretary. If approved, the amendment would increase the 2011 red snapper TAC by slightly more than 200,000 pounds, resulting in the commercial and recreational quotas increasing by slightly more than 100,000 pounds each. This proposed increase is contingent on the combined landings of the commercial and recreational sectors not exceeding the 2010 red snapper TAC. The proposed rule is under review by NOAA Fisheries Service.

Amendment 32 to the Reef Fish Fishery Management Plan (Gag Rebuilding Plan)
The Council is currently developing a gag rebuilding plan in Amendment 32 for implementation in 2011. Gag is currently overfished and undergoing overfishing. Substantial (65-70%) harvest reductions are necessary to meet the rebuilding target, and are contingent upon consistent regulations being implemented by the State of Florida.

Quota Monitoring
- o Recreational Red Snapper: The federal recreational fishery was originally open from June 1 to July 24, 2010, but later reopened after NOAA Fisheries Service determined 2.3 mp of the recreational quota had not been taken; presumably because of the large and long-standing fishery closure stemming from the DWH/BP Oil Spill. Based on a request from the Council, the second recreational fishing season extended for eight consecutive weekends (Friday through Sunday) beginning October 1. Through October 2010, 1,427,371 pounds, or 35% of the quota, had been landed. Final landings for 2010 are not yet available. If the overall TAC is not exceeded, then the recreational and commercial quotas will be increased in 2011 (see above).
- o Recreational Greater Amberjack: Updated projections based on marine recreational survey data through October 2010 indicated the recreational fishery may exceed its 2010 greater amberjack quota by about four percent. After complete 2010 data have been received, and in accordance with established accountability measures, NOAA Fisheries Service will reduce the 2011 recreational quota to account for the overage.
- o Commercial Greater Amberjack and Gray

Triggerfish: The commercial greater amberjack fishery closed on October 28, 2010; preliminary data indicate fishermen landed 104.5% of the greater amberjack quota and 38% of the gray triggerfish quota in 2010. In accordance with established accountability measures, NOAA Fisheries Service will reduce the 2011 commercial greater amberjack quota to account for the overage.

Coastal Migratory Pelagic Fisheries: King and Spanish Mackerel

No new regulatory actions were implemented during 2010 regarding coastal migratory fishes in the Gulf of Mexico.

Quota Monitoring Fishing Year 2009-2010

- The southern Florida West Coast subzone closed to commercial gill net fishing for king mackerel on January 23, 2010.
- The Florida West Coast southern subzone had the king mackerel trip limit reduced to 500 pounds per day on February 7, 2010, and closed to commercial hook-and-line fishing for king mackerel on February 15, 2010.
- The Florida East Coast subzone closed to commercial hook-and-line fishing for king mackerel on February 4, 2010, based on projections. However, a substantial amount of the quota remained, so the subzone was reopened March 3-8, 2010.
- The Florida West Coast northern subzone did not close to commercial hook-and-line fishing for king mackerel.
- The Gulf of Mexico did not close to commercial hook-and-line fishing for Spanish mackerel.

Quota Monitoring Fishing Year 2010-2011

- The Florida West Coast northern subzone had the king mackerel trip limit reduced to 500 pounds per day on October 26, 2010, for commercial hook-and-line fishing.

Annual Catch Limits & Accountability Measures

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 established new requirements to end and prevent overfishing through the use of annual catch limits (ACLs) and accountability measures (AMs). Fishery management plans must establish ACLs and AMs by 2010 for stocks subject to overfishing and by 2011 for most other stocks. ACLs and AMs (or their equivalents) are in place for all stocks undergoing overfishing in the Gulf of Mexico (red snapper, gag, greater amberjack, gray triggerfish). During 2010, NOAA Fisheries Service worked cooperatively with the Council to develop a generic amendment, which addresses ACLs and AMs for most of the remaining stocks in Council fishery management plans. ACLs and AMs for species managed jointly with the South Atlantic Fishery Management Council (i.e., coastal migratory pelagics and spiny lobster) are being addressed through separate amendments.

PROTECTED RESOURCES

Biological Opinions

- Completed a biological opinion for the Jacksonville District Corps of Engineers regarding several projects to "Replace/Repair, or Install Seawalls and/or Install Rip Rap and Associated Activities in Charlotte County, Florida," and its effects on smalltooth sawfish (*Pristis pectinata*) and smalltooth sawfish critical habitat.
- Completed a biological opinion for the Mobile District Corps of Engineers regarding the "Construction of a Municipal Harbor and Re-construction of the Rutherford Fishing Pier in Hancock County, Mississippi," and its effects on Gulf sturgeon, Gulf sturgeon critical habitat, and sea turtles.
- Completed a biological opinion for the Mobile District Corps of Engineers regarding the "Construction of an Extension to, and Continued Operation of, the Washington Street Fishing Pier, and Boat Ramp in Hancock County, Mississippi," and its effects on Gulf sturgeon, Gulf sturgeon critical habitat, smalltooth sawfish, and sea turtles.
- Completed a biological opinion for the Galveston District Corps of Engineers regarding "Explosive Removal of State Lease Platforms in Texas," and its effects on listed sea turtles and their critical habitat.
- Completed a biological opinion for the U.S. Air

Force (Moody USAF) regarding "Continued Combat Search and Rescue Training Operations within the Gulf of Mexico Water Training Area in Apalachee Bay, off Franklin, Wakulla, Jefferson and Taylor Counties, Florida," and its effects on listed sea turtles.

Conservation Measures

Completed

- o Completed the Florida Fish and Wildlife Commission's Endangered Species Act (ESA) Section 6 Cooperative Agreement.
- o Completed the Alabama Department of Conservation and Natural Resources' ESA Section 6 Cooperative Agreement.
- o Implemented the annual Marine Mammal Authorization Program to over 8,941 fishermen in the Gulf.

Ongoing

- o Facilitating observer coverage of the Gulf of Mexico menhaden fishery.
- o Characterizing all trap/pot fisheries and gear types operating along the Southeast U.S. coast, including the Gulf, per recommendations by Take Reduction Teams.
- o Reviewing all bottlenose dolphin stranding data in the Gulf and analyzing for human interactions by type.
- o Coordinating with Mississippi/Alabama Sea Grant on soliciting a request for proposals for dolphin/human interaction research in the Southeast Region, based on outcomes from a SERO-hosted workshop with local and international experts.
- o Coordinating with NOAA Fisheries Service's Offices of Sustainable Fisheries and Science and Technology on the potential for including bottlenose dolphin-recreational fishery interaction questions in new Marine Recreational Information Program surveys.

Outreach Activities

Completed

- o Designed and distributed a brochure explaining how the public can help stranded marine mammals.
- o Provided outreach on our Protect Dolphins Campaign and Dolphin SMART program, including participating in Ding Darling Days and the Burrowing Owl Festival in Ft. Myers, Florida.

Ongoing

- o Conducting a human dimension survey in Panama City, Florida, to help evaluate effectiveness of outreach efforts regarding the legality and harm of feeding and harassing wild dolphins and to determine more effective outreach tools region-wide.
- o Evaluating existing Dolphin SMART participants in Southwest Florida for renewal, and considering the Florida Aquarium in Tampa as a new business participant.

Deepwater Horizon BP Oil Spill

- o Provided media, public, and local outreach throughout the Northern Gulf regarding impacts of the oil spill on marine mammals, in coordination with the Joint Incident Command, NOAA public affairs, and other offices.
- o Responded to Orange Beach, Alabama, community concerns regarding local dolphins by:
  - Conducting visual health assessments and monitoring of animals in Perdido Bay complex.
  - Conducting community outreach, including participating in town hall meeting, meeting with elected officials, state, federal, and local constituents, and hosting several national and local media outlets during visual health assessments to provide NOAA's messages on response efforts.
- o Staffed Unified Command Center for extended periods (Houma, Louisiana, and Mobile, Alabama).
- o Provided lead wildlife branch support to the St. Petersburg and Florida Peninsula Command Centers. Worked with the Florida Fish and Wildlife Conservation Commission on Wildlife Operational Plans.
- o Completed 14 Statements of Work for contracts to enhance stranding capacity.
- o Wrote seven proposals for National Fish and Wildlife Foundation funding to enhance stranding response capacity in the Gulf Region.

- o Helped coordinate all SERO Stranding Network resources and response efforts to over 100 marine mammals. Worked with NOAA Fisheries Service's Office of Protected Species and Southeast Fisheries Science Center to ensure adequate staffing for stranding program.
- o Completed several marine mammal protocols, including stranding protocols for Shoreline Cleanup Assessment Technology (SCAT) teams, field necropsy and carcass disposal protocols for the Stranding Network, and observer training for marine mammals.
- o Prepared live dolphin intervention criteria, as well as general release guidelines for marine mammals live-stranded within the oil spill impact area.
- o Coordinated with NOAA Fisheries Service's Southeast Fisheries Science Center and Office of Protected Resources to ensure coordination, communication, collaboration among all marine mammal researchers/permit holders in the Gulf of Mexico.
- o Participated in developing information related to visual health assessments and on-the-water monitoring of dolphins in the Perdido Bay Complex, Alabama.
- o Coordinated with the Wildlife Branch of the Unified Command to determine step-down criteria for marine mammal stranding response. The marine mammal response phase to the DWH/BP Oil Spill initially ended on November 2, 2010, but was re-instated for central and eastern Louisiana on December 3, 2010, and remains in effect due to the recovery of additional dead oiled dolphins in Louisiana.
- o Prepared and compiled stranding related marine mammal emergency restoration proposals in preparation for Restoration initiatives.

Northern Gulf Marine Mammal Unusual Mortality Event (UME)

- o Worked with NOAA Fisheries Service's Southeast Fisheries Science Center to develop a consultation package for a UME Working Group (established under Title IV of the Marine Mammal Protection Act) concerning elevated strandings of bottlenose dolphins/ cetaceans in the northern Gulf of Mexico from February 2010 through the present.
- o On December 13, 2010, a marine mammal UME was officially declared for the northern Gulf of Mexico (Texas/Louisiana border through Franklin County, Florida). The UME is still open and all mortalities are being thoroughly investigated to the extent possible.
- o In the past, UMEs in the Gulf have been attributed to biotoxins, ecological factors, infectious diseases, or unknown causes. Direct or indirect effects of the DWH/BP Oil Spill are among the potential reasons for the increase in strandings and are being investigated.

HABITAT CONSERVATION AND PROTECTION

Habitat Conservation Division (HCD) personnel in the SERO and in four field offices strategically located throughout the Gulf of Mexico interacted with federal, state, and local officials, private sector, and interested citizens to fulfill federal mandates to conserve, protect, and restore habitats that support managed fish stocks, protected resources, and healthy ecosystem functions. To accomplish these objectives, HCD applied its authorities to manage and influence the outcome of actions that may adversely affect essential fish habitat (EFH) and other fishery resources and, ultimately, the production of important commercial and recreational fisheries. Activities focused on a suite of actions intended to promote an ecosystem-based approach to management, including:

- o Project and permit reviews and EFH consultations involving federal programs;
- o Pre- and post-application planning and monitoring;
- o Federal projects affecting habitat;
- o National Environmental Policy Act (NEPA) consultations;
- o Partnerships and coordination (e.g., fishery management councils and marine fisheries commissions); and
- o Science-management coordination and outreach.

The HCD continued its intensive involvement in activities promoting conservation, restoration, enhancement, creation, and preservation of coastal wetlands, riverine habitats, and nearshore areas

utilized by important commercial and recreational fish species. Also, the HCD became increasingly involved in regional partnerships to leverage resources and capabilities to conserve habitat and promote stewardship. These partnerships include the Southeast Aquatic Resources Partnership (SARP), the Gulf of Mexico Alliance (GOMA), the Northern Gulf Institute, and the NOAA Gulf of Mexico Regional Collaboration Team. For example, HCD's work with GOMA included:

- Serving as the Federal co-lead to the Habitat Conservation and Restoration Priority Issues Team to ensure all work plan elements and deliverables to the NOAA contract with the Gulf of Mexico Foundation were completed on schedule.
- Working on the GOMA's Regional Sediment Management workgroup.
- Participating in numerous GOMA sponsored meetings and conference calls, as well as the GOMA all hands meeting.
- Participating in the GOMA sponsored International Conference on Sea Level Rise hosted by the Harte Research Institute in Corpus Christi, Texas, as well as numerous other GOMA-sponsored meetings on sea level rise science and issues.

The advent of the DWH/BP Oil Spill dominated HCD activities from April until early October of 2010. HCD Gulf Branch staff were involved in many spill related support activities, including:

- Serving on SCAT teams.
- Reviewing approximately 80 emergency permits and providing significant comments both written and verbal, to the various USACE Districts in the Gulf.
- Developing numerous briefing materials and participating in a considerable number of conference calls. Of special note, is the work done for the review of the Louisiana sand berms, the Louisiana jetties, and the beach restoration of Dolphin Island, Alabama, permit applications.
- Providing significant review of several elements of the Secretary Mabus' Long-Term Gulf Recovery Plan.
- Providing the Natural Resources Damage Assessment Team with project summary documents to assist in the development of the priority restoration projects lists for each Gulf state.

HCD worked on several elements of the President's "Roadmap for Restoring Ecosystem Resiliency and Sustainability" under a very aggressive schedule given the complexity of the issues to be addressed and the ongoing DWH/BP Oil Spill. HCD staff continued work on this initiative during the spill, assisting the Council on Environmental Quality (CEQ) in completing most of the assigned tasks within the original deadlines. HCD Roadmap activities included:

- Serving as co-chair for the Improve Sediment Management Team and authoring three draft reports on federal and non-federal funding, regional sediment management and a beneficial use of dredged material roundtable report.
- Coordinating with CEQ staff team leads and NOAA leadership through participation in coordination calls and preparation of briefing documents
- Participating in Priority Restoration Project Teams for Louisiana and Mississippi, which included development of project review criteria, and preparing project summary sheets for hundreds of projects in both states.
- Participating in the Mitigation Team and assisting in report preparation.

The HCD provided consultation services through field inspections, meetings, public hearings, informal discussions, and document review. HCD provided habitat information and EFH reviews in support of fishery management plans, amendments, and other regulatory actions. The HCD also provided recommendations to sequentially avoid, minimize, and offset adverse impacts to EFH and other fishery habitats. 2010 accomplishments in the Gulf of Mexico region include:

- Reviewed over 1,535 individual proposals to construct in coastal waters or wetlands.
- Provided pre-consultative technical assistance on 39 projects.
- Provided detailed conservation recommendations on over 190 EFH consultations initiated by federal action agencies.

- Completed reviews on 28 NEPA actions.
- Participated in other activities associated with mitigation planning and habitat restoration, including providing technical assistance and consultation on two proposed closed loop liquefied natural gas (LNG) facilities by serving 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.

HCD staff have been successfully planning many large-scale habitat restoration projects including projects being funded under: 1) Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA); 2) Mississippi Coastal Improvement Program; 3) Southwest Coastal Louisiana Feasibility Study; 4) Louisiana Coastal Area Ecosystem Restoration Study; 5) Greater New Orleans Hurricane Storm Surge and Risk Reduction Project; and 6) the Mississippi River-Gulf Outlet Ecosystem Restoration Study. HCD continued assisting the Corps of Engineers with hurricane recovery and protection efforts by providing technical assistance and expedited reviews of proposed levee and flood control activities and engaging in long-term restoration planning. HCD engaged in the following activities related to CWPPRA:

- Initiation of engineering and design activities for the Cheniere Ronquille barrier island restoration project, which would create more than 120 acres of dune habitat and more than 250 acres of saline marsh habitat.
- Continued engineering and design activities for the Grand Liard Marsh and Ridge restoration project, which would create more than 300 acres of saline marsh, nourish 140 acres of existing marsh, and create 34 acres of maritime ridge habitat.
- Completion of engineering and design activities for the Bayou Dupont Ridge and Marsh Creation project and successful competition for $35 million in construction funding. It is anticipated that this project will restore 289 acres of intermediate marsh and create 20 acres of habitat suitable for development of maritime ridge community in the upper Barataria Basin.

Under the auspices of the emerging Cooperative Habitat Protection Program, HCD staff continued to partner with the Galveston Bay Foundation and the National Fish and Wildlife Foundation to implement small landowner living shoreline projects in Galveston Bay and initiated a habitat mapping and prioritization project with the Mobile Bay National Estuary Program and Coastal Services Center. Other major HCD activities included:

- Providing technical support and local expertise to the NOAA Scientific Support Coordinator and the Regional Response Teams during several hazardous material incidents and exercises.
- Working closely with the Florida Department of Transportation throughout the bridge and highway project planning process to minimize project delays and ensure early consideration of measures to conserve NOAA trust resources.
- Participating in ecosystem planning activities through active membership in the SARP and other regional partnerships, including the Mississippi Coastal Improvements Program, Louisiana Coastal Protection and Restoration Program, Louisiana Coastal Area Feasibility Study, Florida's Subcommittee on Managed Marshes, National Estuary Programs in Texas, Louisiana, Mississippi, and Florida, and a variety of similar planning activities.
- Aggressively engaging in habitat conservation outreach 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 reports and brochures for intra- and inter-agency coordination.
- Responding to requests for information from private citizens, news media, and local, state, and federal agencies.

COOPERATIVE AGREEMENT AND GRANT PROGRAMS

In Fiscal Year 2010, 109 grants and cooperative agreements totaling $57,492,964 were awarded to states, universities, non-profit/profit institutions, and individuals as follows:

- Regional fishery management councils: $9,390,390 to conduct fishery management activities in accordance with the Magnuson-Stevens Fishery Conservation and Management Act.
- Southeast Area Monitoring and Assessment Program: $4,241,831.
- State-Federal Cooperative Fisheries Statistics Program: $1,200,661.
- Interjurisdictional Fisheries Program: $949,710.
- Atlantic Coastal Fisheries Cooperative Management Act Program: $740,417.
- Atlantic Coastal Cooperative Statistics Program: $367,455.
- Marine Fisheries Initiative Program: eleven new awards totaling $1,126,763 and ten previous multi-year awards totaling $1,063,096.
- Saltonstall-Kennedy Grant Program: five grants totaling $818,077.
- Cooperative Research Program: ten grants totaling $1,902,334.
- Unallied Science Program: $6,987,496.
- Cooperative Science and Education Project: $245,000.
- Gulf States Marine Fisheries Commission: $7,634,424 to coordinate activities of the Fisheries Information Network and $1,211,860 to support a cooperative economic data program.
- South Carolina Department of Natural Resources: $1,128,587 for work on the Marine Resources Monitoring, Assessment and Prediction program.
- The Bay–Watershed Education and Training program: three new awards totaling $223,783 and six previous awards totaling $453,221.
- Congressionally-identified awards: four awards totaling $2,122,875.
- Fishery disaster funds: $14,985,000.
- Two awards totaling $699,984, funded under the Broad Agency Announcement, which encourages submission of research, education and outreach, or other innovative projects or sponsorships that are not addressed through competitive discretionary programs.

SOCIO-ECONOMICS PROGRAM

NOAA Fisheries Service provided socioeconomic review, assessment, and/or authorship services for the following fishery management plans, amendments, and rules in 2010: Re-certification of Provisionally Certified BRDs; Amendment 31 to the Reef Fish Fishery Management Plan; Amendment 32 to the Reef Fish Fishery Management Plan; Gag Interim Rule; Red Grouper Regulatory Amendment; Greater Amberjack Regulatory Amendment; DWH/BP Oil Spill Area Closure; Red Snapper Emergency Rule; Red Snapper 2010 TAC Increase; Red Snapper 2011 TAC Increase; 2011 Comprehensive ACL Amendment; Amendment 18 to the Coastal Migratory Pelagic Fishery Management Plan; Amendment 10 to the Spiny Lobster Fishery Management Plan; and TED Modification Rule.

Social science staff participated on technical work groups, panels, and committees as part of the Gulf of Mexico Fishery Management Council Socioeconomic Panel, the Gulf of Mexico Fishery Management Council Ecosystem Management Science and Statistics Committee, and the Gulf States Marine Fisheries Commission Socioeconomic Workgroup. Other activities in 2010 included:

- Authored the following reports:
  - Fishery Analysis of the Commercial Fisheries for Eleven Coastal Migratory Pelagic Species (SERO-FSSB-2010-01)
  - Florida's Commercial Fishery For Caribbean Spiny Lobster (SERO-FSSB-2010-02)
  - Florida's Commercial Fishery for Stone Crab (SERO-FSSB-2010-03)
  - Spiny Lobster: Florida's Commercial Fishery, Markets, and Global Landings and Trade (SERO-FSSB-2010-04)

- Developed Gulf shrimp latent permit analysis.
- Developed Gulf king mackerel latent vessel analysis.
- Organized and conducted social indicators workshop.
- Served on Aquaculture Research Review Panel.
- Presented an overview of the status of the Gulf shrimp fishery to the Gulf States Marine Fisheries Commission (March 2010 meeting).
- Co-authored "Exploring Fishing Dependence in Gulf Coast Communities" (Marine Policy, Vol. 34(6)).
- Co-authored report on the annual economic survey of Federal Gulf shrimp permit holders for the 2008 fishing years.
- Developed 2010 Southeast MARFIN social science research priorities.

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

Dr. Steve Bortone, Executive Director

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

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

The Council meets every two to three months at various locations around the Gulf coast. Prior to taking final action on any proposed rule change, scoping meetings and 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)
Panel members include recreational and commercial fishermen, charter boat operators, environmentalists, distributors, seafood dealers, and consumers who are knowledgeable about a particular fishery.

Scientific and Statistical Committees (SSCs)
Committee members include economists, biologists, sociologists, and natural resource attorneys who are knowledgeable about the technical aspects of fisheries in the Gulf and advise the Council on annual catch limits, acceptable biological catch, and other stock conditions.

Stock Assessment Panels (SAPs)
Panel members include biologists who are trained in the specialized field of population dynamics, and who participate in the stock assessment process.

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

A review of AP and SSC membership is conducted every two years to fill vacancies on panels and committees. The Council made appointments to these panels and committees in 2009.

FMPs
In 2010, the Gulf Council addressed a variety of issues through the development and implementation of various management plans and amendments.

Shrimp
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 2010. The closure helps protect juvenile shrimp migrating from the bays to the Gulf of Mexico, allowing the shrimp to grow to a larger, more valuable size.

The Council also directed staff to work with the Gulf and South Atlantic Foundation to conduct a sawfish workshop for the shrimp industry. That workshop was held in December 2010.

Reef Fish

The Council adopted the codified language to Reef Fish Amendment 29 - grouper/ tilefish individual fishing quota (IFQ) program to include expanded time to offload and head count provisions to deal with issues arising in the trailerable vessel category. A new definition for buoy gear was also adopted. It replaces an older definition that was vague and could potentially allow gear that more closely resembles longline gear.

The Council continued working on an amendment to its reef fish fishery management plan to end overfishing of gag and rebuild the stock. The amendment reviews adjustments to red grouper annual catch limits and explores whether management changes are necessary. Reef Fish Amendment 32 is expected to be approved by the Council in 2011. Eight scoping meetings were held throughout the Gulf States in January 2010.

In the meantime, the Council requested an interim rule to reduce the commercial quota for gag from 1.41 million pounds in 2010 to 100,000 pounds in 2011. The rule also sets the recreational harvest to zero for the first half of 2011. These measures are designed to help minimize regulatory discards and reduce the overfishing of gag until Amendment 32 can be completed and implemented.

The interim rule also suspends red grouper commercial multi-use IFQ shares. Suspending the red grouper multi-use shares is expected to prevent a possible overrun of the gag annual catch limit by preventing the use of red grouper IFQ shares to harvest gag.

The Council began discussions regarding issues involving the five-year review of the red snapper IFQ Program and began soliciting applications for an Ad Hoc Red Snapper IFQ Five-Year Review Advisory Panel.

The Council approved and submitted to the Secretary of Commerce a regulatory amendment for red grouper that reduces the 2011 total allowable catch from 7.57 million pounds to 5.68 million pounds, gutted weight. Another regulatory amendment increasing the total allowable catch for red snapper from 5 million pounds to 6.945 million pounds was also approved.

Additionally, the Council requested an emergency rule to allow the Regional Administrator to reopen the recreational red snapper season because the recreational quota had not been met due to a federal closure resulting from the Deepwater Horizon oil spill. It also submitted an amendment to remove the September 30 recreational red snapper closure date from the fisher management plan to allow for a potential annual fall red snapper season, and is exploring possible regional management of red snapper.

Finally, the Council began developing a framework action for greater amberjack that could result in a change in the fishing season. The intent of the framework action is to avoid in-season closures during peak economic fishing months, as well as maximize social and economic benefits and potentially provide biological benefits by protecting the stock during peak spawning. Final action was taken in October that establishes a closed season for greater amberjack from June 1 – July 31. Final action is pending.

Sustainable Fisheries/Ecosystem Management

The Council continued working on a Generic Amendment for Annual Catch Limits and Accountability Measures. New provisions in the Magnuson-Stevens Act require regional fishery management Councils to develop annual catch limits and accountability measures by 2010 for managed species subject to overfishing, and by 2011 for all other managed species, to ensure that overfishing does not occur. Final approval of the amendment is expected in the summer of 2011.

A generic amendment to address income requirements and crew size limits for dual permitted vessels is also underway.

In 2010 the Council updated its Essential Fish

Habitat Amendment. Habitat Advisory Panels were convened to review the update and the final update was approved in October 2010.
Finally, the Council continued discussions on sector separation and conducted a workshop in November 2010, to gather information and discuss the idea of sector separation.

Coastal Migratory Pelagics
The Council continued to work on Amendment 18 to the Coastal Migratory Pelagic Fishery Management Plan (FMP) to set the overfishing level, acceptable biological catch, annual catch limits, and possibly annual catch targets for Gulf Migratory Group king mackerel, Gulf Migratory Group Spanish mackerel & cobia (in the Gulf of Mexico).

Coastal Migratory Pelagics Amendment 20 is also under development, and it will address other issues, such as bycatch, the sale of migratory pelagics, catch shares, and modifications to zones, subzones, and migratory group boundaries.

The Council also set control dates for king and Spanish mackerel of June 20, 2009 and March 31, 2010, respectively, in anticipation of possibly developing a catch share program for those fisheries.

Red Drum
The Council continued its discussion about a red drum fishery in the Gulf EEZ and convened a meeting of the Red Drum Working Group via webinar to review red drum data and discuss whether an acceptable biological catch can be determined. The work group met in July and recommendations were provided to the Council during its August meeting.

Stone Crab
The Council initiated a discussion on whether to repeal the Stone Crab Fishery Management Plan.

Spiny Lobster
The Council continued to work on amendment 10 to the Spiny Lobster fishery management plan to set annual catch limits and accountability measures now required by the reauthorized Magnuson-Stevens Act.

A joint meeting of the Gulf and South Atlantic Councils' Spiny Lobster/Stone Crab committees and Spiny Lobster Committees was held in June. The Council also approved Terms of Reference for the Spiny Lobster SEDAR.

Southeast Data, Assessment and Review (SEDAR)
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.

The Southeast Data, Assessment and Review (SEDAR) Steering Committee met twice in 2010; first to discuss stocks to be assessed as benchmarks and updates for 2011, then again to receive reports on SEDAR activities, consider benchmark and update assessments for 2011-2015, and to discuss the SEDAR budget and process.

Additionally, baseline assessments were done for yellowedge grouper/tilefish, and goliath grouper; update assessments were done for spiny lobster and greater amberjack; and the Southeast Fishery Science Center conducted a rerun of the gag update assessment done in 2009.

Data Collection
The Ad Hoc Data Collection committee met August 10, 2010 to discuss methods for incorporating electronic reporting systems for data collection, as appropriate and where feasible, to improve the timeliness and accuracy of catch and effort data for the recreational sector in the Gulf of Mexico.

The Data Collection Committee met twice – once to receive summary reports from the Ad Hoc Data Collection Advisory Panel and the Vessel Monitoring System Advisory Panel – and again to discuss a fish tag system for recreational grouper.

Outreach and Education
The Outreach and Education Advisory Panel met once in 2010 to begin developing a five-year strategic communications plan.

Law Enforcement Advisory Panel
The Law Enforcement Advisory Panel (LEAP) was convened to review a red snapper regulatory amendment; Reef Fish Amendment 32 Options Paper; the Council Action Schedule; and to discuss the use of fish traps.

The LEAP also met jointly with the Law Enforcement Advisory Panel to review and approve the 2011-2012 Operations Plan, and to review joint enforcement agreements.

Other
In 2009, Council representatives attended three meetings of the International Commission for the Conservation of Atlantic Tunas (ICCAT) Advisory Committee.

Other meetings include:
- o New Council Member Orientation
- o MARFIN
- o HMS
- o CCC
- o Gulf States Marine Fisheries Commission
- o Gulf & South Atlantic Foundation Meeting
- o Cooperative Research Program Review
- o Artificial Reef Summit
- o American Fisheries Society
- o SAFMC Meetings
- o Climate Change Workshop
- o NEPA (National Environmental Policy Act)
- o Essential Habitat
- o Recreational Saltwater Fishing Summit
- o Economic and Environmental Impact
- o MSRA Training
- o Florida Fish and Wildlife Commission
- o FIN (Fisheries Information Network)
- o Florida Coastal & Ocean Conference
- o Ichthyologists and Herpetologists
- o Trophic Cascade/Oil Spill
- o Enforcement Summit
- o Southwest Florida Shelf – Ecosystem
- o NOAA Aquaculture.

UNITED STATES FISH AND WILDLIFE SERVICE

Roger Schulz, Deputy Assistant. Regional Director for Fisheries in the Southeast

The Fisheries Program of the U.S. Fish and Wildlife Service (Service) has played a vital role in conserving and managing fish and other aquatic resources since 1871. Today, the Fisheries Program is a critical partner with States, Tribes, other Federal agencies, other Service programs, private organizations, public institutions, and interested citizens in a larger effort to conserve these important resources. Reversing the decline of fish and other aquatic species populations in coastal waters requires approved management plans and assessment information to identify, prioritize, and evaluate management actions. In dealing with trust species, the Fisheries Program conducts planning and assessment in cooperation with State, Tribal, and Federal agencies with jurisdiction over these fish stocks. Existing fisheries councils and commissions, such as the Gulf States Marine Fisheries Commissions, the Gulf Fishery Management Council, the Gulf of Mexico Alliance, the Lower Mississippi River Conservation Committee, and the Southeastern Aquatic Resource Partnership help define these priorities.

The Fisheries Program will continue to expand its involvement with conservation partners along the Gulf to ensure that habitat and species-based management decisions occur in a science-based, biologically-driven, landscape-oriented, and adaptive conservation framework. Focal species of interjurisdictional fish and other aquatics that are found in coastal waters and rivers flowing into the Gulf would include: striped bass, paddlefish, Gulf sturgeon, pallid sturgeon, alligator gar, and a number of imperiled mussels. The Fisheries Program has a proven track record in working with its Federal and State partners to address fish and aquatic resource needs in the southeastern United States. This is evident by the formation of the Southeast Aquatic Resources Partnership (SARP) in 2001. The Service's Fish Passage Program and Fish Habitat Program have implemented a number of projects that will help reverse the decline of fish populations in Gulf coastal waters. These projects will continue to restore valuable wetland habitat and stream habitat within the Gulf coast. Additionally, over 240 Lower Mississippi River habitat restoration projects have been identified as part of the multi-State, Service, and Army Corps of Engineers "Restoring America's Greatest River Plan."

Numerous activities conducted by the Service and its partners have contributed to coastal fisheries interests in the five Gulf States in 2010. Specifically 1) Partnership Restoration Efforts, 2) Anadromous Fisheries Restoration, 3) Coastal Fisheries Restoration, 4) Habitat Protection and Enhancement, and 5) Federal Assistance to State resource agencies.

Partnership Restoration Efforts

The National Habitat Action Plan that has been developed through the National Fish Habitat Initiative (NFHI) is a science-based, voluntary, and non-regulatory partnership that will function through the National Fish Habitat Board and a set of regional Fish Habitat Partnerships. For the Southeast Region, the Fisheries Program will deliver this action plan primarily through SARP. SARP developed the Southeast Aquatic Habitat Plan (Plan) which represents a blueprint for the cooperative conservation of Southeastern streams, rivers, lakes/reservoirs, estuaries, and coastal marine habitats to support aquatic resources for sustainable public use. This Plan is the centerpiece of the Fisheries Program's strategy for aquatic habitat conservation and management in the Southeast Region. The Plan will guide a Region-wide effort to fulfill the goals set forth in the National Fish Habitat Action Plan. Eight primary objectives have been identified in the Southeast Aquatic Habitat Plan: 1) Establish, improve, and maintain riparian zones; 2) Improve or maintain water quality; 3) Improve or maintain watershed connectivity; 4) Improve or maintain appropriate hydrologic conditions for the support of biota in

aquatic systems; 5) Establish, improve or maintain appropriate sediment flows; 6) Maintain and restore physical habitat in freshwater systems; 7) Restore or improve the ecological balance in habitats negatively affected by non-indigenous invasive or problem species; and 8) Conserve, restore, and create coastal estuarine and marine habitats.

The Lower Mississippi River Conservation Committee (LMRCC) and SARP provide platforms for landscape conservation efforts to restore aquatic species impacted by climate change. Fish and mussel populations impacted by climate change will be the focus of funding from the National Fish Habitat Initiative, National Fish Passage Program, and the Aquatic Invasive Species Program. These landscape conservation efforts, both on and off Federal land, should significantly improve the ability of aquatic species to adapt to changing climates and they are likely the key to their survival. The LMRCC and the SARP have the tools in place to fully implement a positive outcome for impacted fish and aquatic populations. The Gulf of Mexico Alliance is a partnership formed between the five Gulf of Mexico states, with Federal agency support, focused on sharing science, expertise and financial resource to better protect the health of the Gulf of Mexico. The Fisheries Program is the Service representative on this Alliance.

Anadromous Fisheries Restoration

A major focus of Service efforts is management and restoration of anadromous fish populations. Three species in Gulf coastal waters and rivers are highlighted: striped bass, Gulf sturgeon, and alligator gar.

***Striped Bass*:** Under the Gulf States Marine Fisheries Management Plan (FMP), the Service is working to restore populations of striped bass along the entire Gulf Coast. Anadromous populations of Gulf Coast striped bass historically occurred in most Gulf rivers, but habitat degradation and alteration have led to severe population declines. The goal of this FMP, working with many state partners, is to restore and maintain striped bass throughout the Gulf of Mexico region and to establish self-sustaining populations of striped bass in at least 10 coastal rivers. This species is recognized as being of tremendous economic, social, and recreational consequence.

- The Service is continuing to work with Florida, Georgia, and Alabama to restore populations of the genetically distinct, Gulf Coast striped bass in tributaries of the Gulf. Current work focuses on 10 rivers systems. The goal is to establish sustainable populations in additional Gulf Coast Rivers that had historical populations of striped bass.
- Efforts have been directed at genetic testing of all parental fish. All progeny are marked to determine percentage of contribution of hatchery vs. stocked fish in year class size.
- Welaka National Fish Hatchery, Florida leads the effort in spawning of broodfish, fry shipment to other facilities for grow-out, rearing and stocking.
- All Gulf striped bass work is accomplished within the framework of the ACF Restoration Plan, signed by the three states and the Service, as well as the Gulf of Mexico Fisheries Management Plan for Striped Bass.

Gulf Sturgeon: Gulf of Mexico sturgeon is a threatened anadromous species of Gulf Coast river systems. Stocks have been greatly reduced throughout much of its range through over-fishing, dam construction, and habitat loss. Service activities focus on addressing high priority action items identified in the Gulf Sturgeon Recovery/ Management Plan; including threats to habitat, life history stages, marine movement and habitat use, and projects dealing with population assessments in major Gulf Rivers using tagging and telemetry.

- Gulf Sturgeon Life History Investigations: The Gulf sturgeon is listed as "Threatened" under the U.S. Endangered Species Act. Researchers noted significant genetic differences among Gulf sturgeon stocks throughout their range. A centralized Gulf sturgeon data base is needed so information can be analyzed. Gulf sturgeon collection information, tag numbers, tissue and pectoral spines were provided to the Universities of Alabama, Florida, and Southern Mississippi, Warm Spring

Regional Fisheries Center, Georgia, U.S. Geological Survey (USGS), National Marine Fisheries Services, and U. S. Army Corps of Engineers (USACE). The information is being incorporated into a regional data base, a tissue bank, and being used for conducting various Gulf sturgeon research activities. Almost 30 years of Gulf sturgeon collection information for river systems in Florida, Alabama and Mississippi have been submitted to the University of Florida and USGS, Gainesville, Florida to incorporate into a centralized database. In addition, telemetry information was provided to NOAA for incorporating into a Gulf wide GIS data base. Researchers are currently involved in developing a centralized Gulf sturgeon database. Also, Gulf sturgeon pectoral spines and whole fish were submitted to researchers for developing age and growth models.

- Gulf Sturgeon Spawning Investigations in the Yellow River (Florida and Alabama): Little information is known about the spawning habits of the Gulf sturgeon in the Yellow River. The Gulf Sturgeon Recovery/Management Plan states the need to identify, restore, and protect habitats essential for all life stages of the Gulf sturgeon. Locating spawning sites and documenting the presence of spawning activity is paramount to accomplishing this task. During spring 2010, the Service conducted a two-month long project in order to learn more about this species spawning activities in the upper Yellow River. Egg pads were used to collect Gulf sturgeon eggs at sites identified as potential spawning habitat in the main stem Yellow River, Florida and Alabama. Egg pads (10-40/site) were deployed and monitored at each of four sites during a six week period in April and May 2010. Eggs collected were geo-referenced and saved for genetic verification. A total of four Gulf sturgeon eggs were collected from two different spawning sites during the study. In addition, seven individuals previously fitted with transmitters were tracked in the upper Yellow River.

Alligator Gar: Over the past 50 years, alligator gar populations have declined throughout much of their native range. Reasons for such declines are several-fold, including overfishing by both sport and commercial anglers, habitat destruction and alterations, decreased spawning habitat, and loss of passage between main river channels and floodplains. As a result, relatively stable populations occur only sporadically throughout the southern portion of its native range.

- Current Service emphasis is on 1) identifying spawning and rearing habitat by the use of radio telemetry, 2) refining culture parameters, and 3) using resulting progeny to restore this species to its native historical range.

- Private John Allen National Fish Hatchery, Mississippi is currently working with the Baton Rouge Fish and Wildlife Conservation Office, Louisiana, in conducting an intensive effort aimed at determining critical habitat needs, seasonal movements, and genetic structure of an alligator gar population located on St. Catherine Creek National Wildlife Refuge. Bathymetry measurements will be obtained in order to accurately characterize the specific needs of this species. A spatially explicit model containing habitat data, river flood pulse and duration, ambient air and water temperatures, along with water quality parameters will be developed in order to locate, and/or create, other like areas that are critical to the survival of this species. This model will also play a key role in defining areas where conservation actions will best benefit multiple species, and in identifying habitats and areas that could suffer greatest from significant weather events that are occurring more frequently as a result of accelerated climate change. Additionally, a great deal of effort is focused on collecting brood alligator gar from the Mississippi River and using them to produce fry and fingerlings that are used for restoration stockings. This collection of efforts is directed by the Tennessee Alligator Gar Management Plan, Alabama Alligator Gar Fishery Management Plan, and Strategies for the Conservation and Recovery of Southeastern Imperiled Fishes.

Coastal Fisheries Restoration/Assessments
Coastal habitats in the Southeast are critical to the region's biological productivity. Marshes, oyster reefs, seagrass beds, estuarine wetlands, mangroves, coral reefs, and flats provide food, cover, shelter, spawning, and nursery areas for fish and other aquatic species and have suffered significant losses and degradation in recent years.

BP-Deepwater Horizon Oil Spill
The BP-Deepwater Horizon oil spill posed grave risks to a number of significant Service resources. Within the potentially impacted area there are 38 federally-listed species protected under the Endangered Species Act, 29 of those are endangered. There are more than 400 avian species that migrate, winter, or remain resident through the Gulf coastal area. In addition, the Service manages 36 National Wildlife Refuges along the Gulf Coast from Texas to Florida's peninsula that cover nearly three million acres of freshwater, tidal, and terrestrial habitats along hundreds of miles of shoreline. These lands support extensive recreational use and cultural resources as well as fish and wildlife and their habitat. Through the end of the calendar year 2010, some 275 miles of shoreline of Department of Interior lands were impacted to one degree or another by oil, especially at Bon Secour and Breton National Wildlife Refuges, and the Gulf Islands National Seashore.

Fish and Wildlife Service employees responded immediately and aggressively to the BP-Deepwater Horizon oil spill, and the ongoing involvement remains significant. Service staff were among the first responders to the spill, initiating surveys to recover oiled and injured wildlife, and identify threats to trust resources. Biologists, ecologists, and archaeologists began immediately to identify the most sensitive areas of the coastline as the Coast Guard put protective measures, such as absorbent boom, in place. Other employees—including experts in finance, planning, logistics, emergency section 7 consultation, and media relations—helped staff the Incident Management Teams, helped shoreline assessment teams check beaches for oil, recommended shoreline cleanup methods, and recommended best management practices to avoid and minimize adverse affects of the spill and response actions on federally endangered and threatened species, migratory birds, and other DOI trust resources and compliance with the Endangered Species Act.

As of January 1, 2011, preliminary data indicates 8,183 birds have been collected or captured. Of those, 2,079 visibly oiled birds have been captured alive. Of those birds, 1,246 have been released back into the wild. Preliminary data also indicates 1,144 sea turtles were captured, including 535 alive (all but 79 of those with visible oil). So far, 397 have been released to date. To limit the potential impacts to sea turtle hatchlings from the spill, we, along with our partners, tracked 278 nests, collecting their eggs when hatching approached; nearly 15,000 hatchlings were released into the Atlantic Ocean along a 25-mile stretch of Florida's Coast.

Natural Resources Damage Assessment and Restoration (NRDAR) activities began immediately following the explosion of the Deepwater Horizon. Natural resource trustees involved in the NRDAR include representatives of the five Gulf States and affected Federal agencies. The Trustees have established a Trustee Steering Committee to facilitate cooperation and coordination among the participating state and federal agencies. The Service is working with the other Trustees to develop a comprehensive assessment identifying the injury to natural resources from the spill, as well as a restoration plan that identifies what is needed to restore the region's natural resources to their pre-spill condition. Service biologists are represented on all 14 NRDAR technical working groups, which will provide a comprehensive picture of the nature, extent, and magnitude of natural resource injuries across the Gulf of Mexico ecosystem and will provide the basic information to guide restoration efforts. Each workgroup has engaged national experts in study design/implementation of pre-assessment and assessment studies. We have established a Deepwater Horizon NRDAR Office in Fairhope, Alabama, to manage the Service's significant workload on this NRDAR.

While significant progress has been made establishing and planning this NRDAR, the bulk of the assessment and restoration work is just beginning. The next several years will be focused on assessment; given the potential impacts of the spill throughout the Gulf ecosystem, the scope and scale of this assessment will be unprecedented. The assessment will be managed by the Trustee Council, and conducted through the Technical Working Groups. At the same time, we will continue implementing emergency and early restoration projects. Over time, the balance of

these activities will shift more towards restoration, especially once a restoration plan is approved and adopted. Restoration activities, and associated monitoring, will continue for years into the future, until the impacts of the spill are fully addressed.

Many Service programs played a significant role in addressing the impacts of the oil spill on the Gulf of Mexico. The following examples identify specific Service involvement:

- The Panama City Fish and Wildlife Conservation Office (FWCO) participated in the oil spill recovery efforts through many activities including assisting with sea turtle recovery by moving sea turtles, patrolling habitat via foot, ATV, and boat, and working with State and Federal partners to assess appropriate response needs.

- The Panama City FWCO is taking part in a large pre and post-assessment plan for the collection of data to determine potential exposure and injuries of threatened Gulf sturgeon. This project involves multiple partners and is funded through the Natural Resource and Damage Assessment process. The focus of the project is collecting information that will facilitate the evaluation of potential injury of the Deepwater Horizon (MC 252) Oil Spill to adult sturgeon. Objectives include: 1) documenting the condition of Gulf sturgeon during the fall and spring migrations and compare condition of adult Gulf sturgeon between migrations; 2) collecting blood samples from up to 180 adult Gulf sturgeon from among nine major river systems associated with the MC252 incident; and 3) documenting offshore movement and habitat use of up to 180 adult Gulf sturgeon during the overwintering period throughout its known range. Panama City FWCO employees are actively working on three of the seven specified rivers in the plan: Escambia/Yellow, Blackwater, and Apalachicola rivers.

- The Baton Rouge Fish and Wildlife Conservation Office, Louisiana, devoted a large part of their work effort to the following:
  1. Assisted in response efforts to rescue and rehabilitate birds.
  2. Provided GIS support and assistance to responders for strategic protection of coastal habitats.
  3. Developed and implemented a Gulf-wide Pre-Assessment Work Plan for Gulf sturgeon. The Baton Rouge FWCO leads the project for the NRDAR Fish Technical Workgroup (TWG) and oversees the effort of over 50 participants including DOI, DOD, Coastal States, Universities, and independent contractors that are involved in capturing and evaluating sturgeon in most major river systems along the Gulf coast. The sturgeons are implanted with telemetry transmitters and their movements have been recorded by an unprecedented array of telemetry receivers from the Suwannee River to Lake Pontchartrain, Louisiana. The observed movement of sturgeon throughout the winter of 2010 and into 2011 will serve to document the potential exposure of these fish to oil in the northern Gulf.
  4. The Office represents the Service on other NRDA Fish TWG workplans that seek to 1) identify the distribution of oil in the substrate of the Gulf floor, 2) to characterize the potential accumulation of toxins in benthic invertebrates that are prey items to many gulf species, including Gulf Sturgeon, 3) identify and document fish kills related to the oil spill, and 4) monitor and characterize marsh and coastal impacts important to State partners.

Coastal Program: The Service's Coastal Program is charged with a mission to protect and recover threatened and endangered species, migratory birds, marine mammals, interjurisdictional fish species, and other species of concern by supporting voluntary restoration, enhancement, management, and protection of high-priority coastal habitats. The Coastal Program works with willing partners to provide technical assistance and to provide and leverage financial support to accomplish habitat improvement projects that benefit Federal trust species and their habitats on both private and public lands. Within the Southeast Region, and specific

to the Gulf of Mexico, the Coastal Program has a dedicated office and one or more staff at: Panama City, Florida (Florida Panhandle Office); Tampa, Florida (Tampa Bay Office); and Vero, Beach, Florida (South Florida Office).

- **Louisiana:** The Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) is a program funded with non-Service funds but the Service participates in the review of the planning, engineering and design, and construction of all projects through the CWPPRA Task Force and committees, and more directly in the design, construction, and O&M of Service-sponsored CWPPRA projects. CWPPRA funds are allocated to the Louisiana CWPPRA program from the Sport Fisheries and Boating Safety Trust Fund to the Corps of Engineers who serves as the banker and chairman of the Task Force. The funds are not Corps funds per se, but are shared and distributed to 5 Federal agencies and the State. The Service oversees the planning, engineering and design, construction, O&M, and monitoring of these Service-sponsored projects.

  Total CWPPRA for 2010: 869 acres of wetlands restored (totaling 2,320 net wetland acres that were restored, protected or enhanced); 7.5 miles shoreline protected;
  Service-sponsored CWPPRA for 2010: 352 acres of wetlands restored (totaling 1,513 net wetland acres that were restored, protected or enhanced); 1.1 miles shoreline protected.

Contaminants Program: The Contaminants Program works with partners to prevent contamination and maintain healthy ecosystems; identifies contamination that adversely affects the health of fish, wildlife, and their ecosystems; and acts as Federal trustee for fish and wildlife injured by contamination, negotiating settlements from polluters to restore lost resources and their benefits to local citizens.

- **Louisiana:** In 2010, evaluated 130 oil/hazardous materials spill reports (however, investigations showed no significant fish or wildlife damages in most, except for the BP Deepwater Horizon spill). The Service is currently involved in 10 Natural Resources Damage Assessment and Restoration Program (NRDAR) cases, settlements pending.

National Wildlife Refuges: A total of 37 National Wildlife Refuges perpetually protect and manage thousands of acres of coastal wetlands in each of the five Gulf States. These refuges provide 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.

Habitat Protection and Enhancement

Fish Passage Program: The goal of the Fish Passage Program is to restore native fish and other aquatic species to self-sustaining levels by reconnecting fish habitat that has been fragmented by barriers. Examples of accomplishments to the Gulf Coast include:

- Improving Fish Passage for Alabama Shad and Striped Bass: In 2010, fish passage was provided at Jim Woodruff Lock and Dam on the Apalachicola River. The U.S. Army Corps of Engineers operate the lock twice daily for the sole purposes of upstream fish passage. This cooperative study among the Service, USGS (SC Coop Unit), USACE, Georgia Department of Natural Resources, Florida Fish and Wildlife Conservation Commission, and The Nature Conservancy was initiated in FY05. The objectives were to evaluate fish behavior in and near the lock and to monitor up- and downstream movement to evaluate fish passage opportunities. Alabama shad and Gulf striped bass were implanted with sonic tags. Fixed telemetry stations connected to a microprocessor monitored fish behavior near and in the lock. Upstream and downstream movement of fish was monitored. Initial results indicate that Alabama shad and striped bass successfully passed upstream through the navigation lock at Jim Woodruff Lock and Dam allowing access to over 100 miles of former habitat for these species. Fish passage through the lock is indeed a feasible, low-cost option for fish passage in the Apalachicola-Chattahoochee-Flint (ACF) river system. The

life history of shad is ideal for population recovery (e.g., low age-at-maturation, high fecundity, short generation time), and fish passage may allow for a relatively quick recovery of Alabama shad in the ACF river system. This study is still in progress and will be followed closely over the next few years for continued signs of success.

- Replacement of an Undersized Culvert to Improve Fish Passage (Tributary, Ochlockonee River): Several poorly constructed road-stream crossing structures occur in tributaries immediately upstream of the last known population of the endangered Ochlockonee moccasinshell mussel. These structures impede mussel host fish passage and contribute massive amounts of sediment to the stream. Replacement of improperly sized road-stream crossings with stream friendly crossing structures will improve stream habitat within the range of the endangered Ochlockonee moccasinshell and purple bankclimber mussels. Service biologists worked with partners to create a design for replacement structures and replaced the culvert to restore hydrology and eliminate the fish passage barrier. The road-stream crossings on Orchard Pond Road near Tallahassee, Florida, were undersized and improperly constructed, resulting in impoundments at the roadway, fish passage obstructions, and other alterations in hydrology and stream function. On-site assessments were conducted and restoration designs created for road-stream crossings on Orchard Pond Rd near the city of Tallahassee, Florida. Restoration will likely include removal of the culvert and restoration of the stream channel and bank stabilization. Pre and post-barrier monitoring will be accomplished by Service biologists.

- Paint Rock River Fish Passage: In September 2009, the Paint Rock River Fish Passage Working Group (PPRWG) was formed. It consisted of five state agencies from Alabama, several non-governmental organizations, and four federal agencies: U.S. Army Corps of Engineers, Natural Resource Conservation Service, Tennessee Valley Authority, and the Service (Wheeler National Wildlife Refuge, Alabama Ecological Service office and the Warm Springs Regional Fisheries Center, Georgia) for the sole purpose to identify, inventory, and assess existing fish barriers within the Paint Rock River watershed. The results of the survey would provide data that would support prioritization of project sites, ultimately leading to proposals in future years for the removal or modification of fish barriers within the watershed.

  The Paint Rock River is considered one of the most biologically diverse rivers for freshwater fish and mussels in North America, containing approximately 100 fish species and 47 mussel species. Two of the fish species and six of the mussel species are designated as endangered, threatened, or candidate. Of the numerous species known to occur in the Tennessee River Basin within Alabama, two fish and six mollusks (mussels and snails) are restricted to the Paint Rock River. To help assess the barriers the Warm Springs Regional Fisheries Center was asked to head the surveying efforts, due to their knowledge and experience in surveying for and identifying fish barriers in southeastern U.S. streams and rivers. The surveys were conducted using a level and leveling rod to examine the following: elevations of the culvert inlet, culvert outlet, water surface, and tailwater control. In addition, information on stream and riparian habitat, local channel instability, GPS location, and crossing type, dimensions, and substrate were recorded. Data collected was analyzed to determined passability. Passability was determined using predictive models for fish swimming and leaping ability used by the U.S. Forest Service.

  In September 2010, 18 different sites were surveyed, some of these sites were road crossings and others were sites where stream bank restoration projects occurred. Of these, five assessments were conducted at three sites determined to be barriers, and at two sites that were classified as indeterminate until

biological data was collected. The survey documented the presence of approximately 48 species of fish and reported new or slight range extensions for blotchside logperch, flame chub, and a new snail darter record at Jones Mill; and potentially, a new Alabama lampmussel in Hurricane Creek at the Bell-Collins site. Based on the fish surveys, the two indeterminate sites were classified as impassable.

Fish Habitat Program*:* Through the National Fish Habitat Action Plan, the States will continue to lead the implementation of the Fish Habitat Action Plan, in cooperation with the Service and other key partners. Efforts are directed at implementing on-the-ground cost-share projects identified by Fish Habitat Partnerships. For the Southeast Region, the delivery of fish habitat project will be primarily through the SARP. SARP has taken a comprehensive approach to watershed conservation, considering the aquatic flora and fauna within the integrated landscape. There were no specific fish habitat projects along the Gulf coastal waters of Alabama, Louisiana, Mississippi, or Florida. SARP, through its partners, conducted cumulative geospatial habitat assessments to help identify the highest priority basins in which to conduct habitat restoration activities. Various GIS layers will be overlaid, weighted and evaluated to identify the high priority areas in the Southeast. Completion of this project will aid in funding future habitat restoration projects in the most degraded areas to improve the quantity and quality of suitable aquatic habitat.

Aquatic Invasive Species Program: Invasive species are a part of the landscape and are expanding in the Southeast. While many are found in Florida, every Southeastern State has at least one exotic species, including aquatic and terrestrial plants and animals. Recognizing the importance of this issue, the Southeast Region has taken a leadership role in raising public awareness of the importance of this issue and implementing appropriate management and control measures, where and when appropriate. Over 150 exotic fish species occur in the Southeast Region. Invasive species, such as zebra mussels, Asian carp, Asiatic clams, Asian swamp eels, purple loosestrife, Eurasian water milfoil, water hyacinths, giant salvinia, apple snails, and hydrilla, to name a few, have been introduced into water bodies in many southern rivers, ponds, and wetlands. Increasing temperatures may enlarge the area of the Southeast vulnerable to establishment of populations of tropical aquatic invasive species currently restricted to south Florida. With the potential of sea level rise, the problems can only get worse.

Examples of specific introductions:

- **Asian Carp.** Asian carp are species of great concern in the Southeast. Four Asian carp species (grass, bighead, silver, and black carp) have been introduced into United States waters. With the exception of black carp, all are known to be successfully established in the wild. Black carp, are primarily used as a biological control agent to combat the spread of yellow grub in striped bass culture and the parasitic trematode found in commercial catfish aquaculture ponds in several States. Black carp have been identified in the wild from Louisiana waters, and if the species becomes established, it can pose a serious threat to native mussels and snails. Another species of concern is the Asian swamp eel, also referred to as rice eel.

- **Asian Swamp Eel.** Four populations of Asian swamp eel, a fairly large generalist predatory fish, have been discovered in the Southeastern United States. Three populations are in South Florida and one in north Georgia. Asian swamp eels are native to the tropical freshwater and brackish waters of Africa, Asia, Central and South America. Since the native range for the swamp eel includes tropical, subtropical, and temperate climates, the Southeastern States provide ideal conditions for its spread into natural, disturbed or artificially created habitats. The Fisheries Program is evaluating methods of controlling further spread of this species and is collaborating with affected State and Federal natural resource managers and other partners (South Florida Water Management District, the National Park Service , U.S

Geological Survey, and the Florida Fish and Wildlife Conservation Commission, Georgia Department of Natural Resources, University of Georgia, and the Chattahoochee Nature Center) to develop and implement an Asian swamp eel management plan.

- **Aquatic Invasive Plants**. Aquatic invasive plants are extremely problematic in the Southeast. Species such as water hyacinth and hydrilla occur throughout Southeastern waterbodies; however, they appear to be most prevalent in Florida and the Gulf Coast States. Millions of dollars are spent annually by State and Federal agencies to control the spread of these and other aquatic nuisance plants. For example, the State of Florida annually appropriates nearly $35 million for invasive plant management. Giant salvinia is an invasive aquatic plant currently spreading through waters of southern-tier states. The Aquatic Invasive Species Program has provided technical assistance to Refuges in Alabama and Louisiana, and limited funding to Georgia Department of Natural Resources to respond rapidly to eradicate isolated infestations.

Examples of ongoing efforts to the Gulf coast include:

- Participation on the Aquatic Nuisance Species Task Force
- Participation on the Gulf and South Atlantic Regional Panels of the Aquatic Nuisance Species Task Force
- Development of ANS Management Plans with States. Approved plans to date for Gulf coastal states include Louisiana, and Georgia. Florida, Alabama, and Mississippi have draft plans
- Provide Hazard Analysis and Control Point (HACCP) training to other Service programs (e.g. Refuges, Ecological Services)
- Provide HACCP training to State, Federal Tribal and private partners
- Funding of specific projects through grants and cooperative agreements with States and other partners that support the overall role of the AIS Program
- Support outreach efforts such as Habitattitude and Stop Aquatic Hitchhikers
- Identification of research needs
- Coordination with Landscape Conservation Cooperatives incorporating aquatic invasive species strategies and planning efforts
- Participate with the Southeast Aquatic Resource Partnership (SARP) in efforts related to aquatic invasive species.

Federal Assistance to State Resource Agencies

The Service's Wildlife and Sport Fish Restoration Program continued to administer grant funding to the Gulf of Mexico States to conserve, protect, and enhance fish, wildlife, their habitats, and the hunting, sport fishing, and recreational boating opportunities they provide. Funding was made available to the Gulf States through the following grant programs: Sport Fish Restoration Program, State and Tribal Wildlife Grant Program, National Coastal Wetlands Conservation Grant Program, Clean Vessel Act Grant Program, Boating Infrastructure Grant Program, and the Endangered Species program.

- **Sport Fish Restoration Program:** The Sport Fish Restoration Program (SFR) assists State fish and wildlife agencies with marine and freshwater sport fish management, boating access, aquatic education, and sport fish restoration outreach projects. States utilize SFR funds to conduct surveys on sportfish and their associated habitats and research to determine answers to key questions such as genetic relationships among selected fish populations, life history, angler participation, and other data that provide baseline information to help states manage sportfish and their aquatic habitats. SFR education grants provide funding for States to encourage individuals to conserve aquatic environments and to teach individuals how to enjoy the resources through activities such as fishing or boating. SFR funds are also used to provide public access to aquatic resources through the construction of boating ramps and fishing piers.

- **State and Tribal Wildlife Grant Program**: The State and Tribal Wildlife Grant Program (SWG/TWG) provides funding to States and Tribes for the development and

implementation of programs that benefit wildlife and their habitats, including species that are not hunted or fished. Some Gulf Coast States are engaged in sturgeon research and management including tracking, critical habitat identification and population evaluation. Other States are utilizing SWG funds to focus on habitat concerns. For example, Louisiana will determine fish assemblages and landscape influences in the Pontchartrain Basin in order to update monitoring databases for the Southeastern Aquatic Resources Partnership and Louisiana Heritage Program. Aquatic surveys are being conducted in four Mississippi drainages to help determine fish assemblages, population status, distributional changes, and habitat use of endemic non-gamefish species.

Under the Tribal Wildlife Grant Program, funds have been awarded to several Tribes in the Southeast Region including the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, and the Poarch Band of Creek Indians. Funds are used to help Tribes better manage their lands for wildlife conservation. Tribes have also used funds to conduct habitat restoration and biological assessments as well as create wildlife management plans with grant funds.

- **National Coastal Wetlands Conservation Grant Program:** The National Coastal Wetlands Conservation Grant Program provides funds to Coastal States to carry out coastal wetlands conservation projects for restoring habitats and acquiring coastal wetland tracts. Funds are used for land acquisition and restoration plans in coastal wetlands habitat and maritime forests to protect fish and wildlife and their habitats. In FY 2011, two grant awards were made available for Gulf Coast projects. Alabama received a grant to purchase wetlands in Heron Bay and Portersville Bay, and Florida received a grant to purchase wetlands near the mouth of the Steinhatchee River.

- **Clean Vessel Act Grant Program**: The Clean Vessel Act Grant Program (CVA) provides funding for States to build pump-out and dump stations for disposing vessel sewage from recreational boats. The program further encourages marina owners to implement clean marina programs and activities that protect water quality. The program also provides funding for States to conduct outreach to boaters, marinas, and the general public about the importance of keeping sewage out of our waters. Currently, there are several CVA projects in the implementation phases. CVA FY-11 awards have not yet been announced.

- **Boating Infrastructure Grant Program**: The Boating Infrastructure Grant Program (BIG) provides grant funds to the States, the District of Columbia and Insular Areas, to construct, renovate, and maintain tie-up facilities with features for transient boaters in vessels 26 feet or more in length, and to produce and distribute information and educational materials about the program. Several BIG projects are active in the Gulf States. In FY-11, Alabama and Mississippi received awards.

- **Endangered Species Grant Program**: The Endangered Species Grant Program provides grants to States and Territories to participate in a wide array of voluntary conservation projects for candidate, proposed, and listed species. States can use grant funds to acquire lands and develop habitat conservation plans for species in need. For instance, Florida acquired land to aid in the recovery and management of the Perdido Key Beach Mouse. Currently, Louisiana, Mississippi and Alabama are using grant funds to develop monitoring programs and response plans for the White Nose Syndrome in cave bats.

Financial Statements

Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

December 31, 2010

PILTZ, WILLIAMS, LAROSA & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS
A Professional Association

Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

Financial Statements

December 31, 2010

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PILTZ, WILLIAMS, LAROSA & COMPANY

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A Professional Association

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Independent Auditors' Report

Board of Commissioners
Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

We have audited the accompanying financial statements of the governmental activities, each major fund, and the aggregate remaining fund information of Gulf States Marine Fisheries Commission as of and for the year ended December 31, 2010, which collectively comprise Gulf States Marine Fisheries Commission's basic financial statements as listed in the table of contents. These financial statements are the responsibility of Gulf States Marine Fisheries Commission's management. Our responsibility is to express opinions on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinions.

As described in Note A, Gulf States Marine Fisheries Commission prepares its financial statements 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 the Gulf States Marine Fisheries Commission, as of December 31, 2010, 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.

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In accordance with *Government Auditing Standards*, we have also issued our report dated May 20, 2011 on our consideration of Gulf States Marine Fisheries Commission's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Governmental Auditing Standards* and should be considered in assessing the results of our audit.

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and budgetary comparison information and corresponding notes on pages 3 through 8 and 21 and 22 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standard Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance

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 as a whole. The accompanying schedule of expenditures of federal awards which is presented for purposes of additional analysis as required by U.S. Office of Management and Budget Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, and is also not a required part of the financial statements. The schedule of expenditures of federal awards is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects in relation to the financial statements as a whole.

Piltz, Williams, LaRoe + Co.
Certified Public Accountants

Biloxi, Mississippi
May 20, 2011

Section I

Management's Discussion and Analysis

Management's Discussion and Analysis

This discussion and analysis of the Gulf States Marine Fisheries Commission's (the Commission) financial performance provides an overview of the Commission's financial activities for the year ended December 31, 2010. Please read it in conjunction with the Commission's basic financial statements and notes to the financial statements, which are found in Section I.

Using this Annual Report

This discussion and analysis is an introduction to the Commission's basic financial statements, which comprise three components: 1) the commission-wide financial statements, 2) governmental fund financial statements, and 3) notes to the financial statements. This report also contains other supplementary information in addition to the basic financial statements.

Commission-Wide Financial Statements (Reporting the Commission as a Whole)

The commission-wide financial statements are designed to be similar to private-sector businesses in that all commission activities are consolidated. These statements combine fund financial resources with capital assets and long-term obligations. 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 on all of the Commission's assets and liabilities, with the difference between the two reported as net assets. You can think of the Commission's net assets 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. Assets and liabilities are measured using current values. One notable exception is capital assets, which are stated at historical cost less an allowance for depreciation

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 $ 569,652 as of December 31, 2010. As of December 31, 2009, assets exceeded liabilities by $2,046,694.

Of the Commission's net assets, $179,040 (31%) 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.

The following table presents a summary of the Commission's net assets for the year ended December 31, 2010 and 2009.

	December 31, 2010	2009
Current assets	$ 307,930	$ 1,842,589
Noncurrent assets		
Post Employment Health Plan investment account	97,625	74,762
Property and equipment, net of accumulated depreciation	179,040	203,998
Total noncurrent assets	276,665	278,760
Total assets	584,595	2,121,349
Current liabilities	14,943	74,655
Noncurrent liabilities	-	-
Total liabilities	14,943	74,655
Net assets		
Investment in capital assets, net of related debt	179,040	203,998
Unrestricted	390,612	1,842,696
Total net assets	$ 569,652	$ 2,046,694

Changes in net assets – The Commission's total revenues for the year ended December 31, 2010 were $43,036,144. The total cost of all programs and services was $44,513,186. The Commission's total revenues for the prior year ending December 31, 2009 were $48,768,818; and the total cost of all programs and services were $47,322,421. The following table represents a summary of the changes in net assets for the year ended December 31, 2010; and the prior year, in comparison, for the year ending December 31, 2009:

	December 31, 2010	December 31, 2009
Revenues		
General revenues		
Member state appropriation	$ 90,000	$ 112,500
Council activities	35,000	45,000
Other income	500	30,095
Interest income	918	1,223
Rent income	7,200	7,200
Post employment health plan revenue	17,648	15,506
Registration fees	15,370	13,040
Gain (loss) on sale of assets	550	-
Unrealized gain (loss) on investments	8,089	12,043
Program revenues		
Collection & dissemination of recreational and commercial fisheries information network	6,091,176	5,541,298
Interjurisdictional fisheries management	253,756	201,408
Coordination of recreational fisheries programs	190,162	186,927
Collection & dissemination of fishery-independent data and information	336,911	217,480
SEAMAP Supplemental	42,768	28,506
Review and formation of habitat information	51,358	48,869
Study of aquatic nuisances	57,914	76,626
Fish and wildlife support services	70,824	78,833
Emergency disaster recovery program I	27,090,832	26,542,918
Emergency disaster recovery program II	8,312,325	15,205,230
Aquaculture planning in the Gulf of Mexico	24,628	122,298
Economic data program	306,040	175,166
Oil disaster recovery program	28,890	-
Stock Assessment Enhancement	3,285	-
Other grant income	-	106,652
Total revenues	$ 43,036,144	$ 48,768,818
Expenses		
Programs	44,319,233	47,033,771
General and administrative	193,953	288,650
Total expenses	44,513,186	47,322,421
Change in net assets	(1,477,042)	1,446,397
Net assets, beginning	2,046,694	600,297
Net assets, ending	$ 569,652	$ 2,046,694

Fund Financial Statements (reporting the Commission's major funds)

The fund financial statements provide information about the major individual funds. A fund is a fiscal and accounting entity with a self-balancing set of accounts that the Commission uses to keep track of specific sources of funding and spending for a particular purpose.

The Commission's basic services are reported in the funds, which focus on how money flows into and out of those funds and the balances left at year-end that are available for future spending. The fund financial statements provide a short-term view of the Commission's general operations and the basic services it provides. Fund information helps determine whether there are more or fewer financial resources that can be spent in the near future to finance the Commission's programs. These funds are reported using the cash basis, which measures cash and all other financial assets that can readily be converted to cash. The Commission's funds include the General and Special Revenue funds.

Notes to the Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the Commission-wide and fund financial statement. The notes to the financial statements are a required part of the basic financial statements.

Budgetary Highlights

The Commission establishes its budget to reflect financial conditions such as increases and decreases in operating revenues and expenses, and also to increases, decreases and availability of federal funding for operating and capital needs. As noted in the notes to the financial statements, it is the practice of the Commission to prepare its budget on the modified cash basis of accounting.

Capital Asset Administration

At the end of the current year ending December 31, 2010, the Commission had $179,040, net of accumulated depreciation invested in facilities, equipment and automobiles. This amount reflected a net decrease (including additions, deletions and depreciation deductions) from the prior year of $24,958. As of December 31, 2009, the Commission had $203,998 invested in facilities, equipment and automobiles, net of accumulated depreciation.

Long-Term Debt

At the end of the current fiscal year, the Commission had no outstanding debt as all obligations were satisfied. The Commission has encountered no problems in obtaining financing as needed.

Significant Transactions

In September 2006, the Commission was selected by the National Marine Fisheries Service (NMFS) to administer a program that authorized $127.7 million for the Emergency Disaster Recovery Program (EDRP I). The program focused primarily on the assessment and restoration of the marine fishery resources that were damaged by the multiple disasters of 2005. Conditions for the use of the $127.7 million required that not less than $38 million be used for oyster rehabilitation; and that not less than $7 million be used for cooperative research. The remainder was to be used as deemed necessary by the respective states for habitat restoration of other appropriate resource recovery efforts, as approved by the funding agency. The funds will be used for projects that have been approved by the funding agency in the years 2006-2011. If necessary, a no-cost extension will be granted by the funding agency until the project tasks are completed.

Further assistance for the Gulf States was provided by Congress in 2007, with a second appropriation in the amount of $85 million for additional Emergency Disaster Recovery Program (EDRP II). The Commission was selected by the National Marine Fisheries Service (NMFS) to administer this program. The objective of this program is to provide assistance to impacted fishermen and fishery related industry. The intent of this appropriation was not only to provide opportunities for relief to those businesses, industries and individual commercial fishermen who lost income as a result of the disasters of 2005, but also to add further impetus in the stabilization of the Gulf of Mexico fishing heritage and its resulting contributions to the Gulf economy. The funds will be used for projects that have been approved by the funding agency in the years 2007-2012. If necessary, a no-cost extension will be granted until the project tasks are completed.

Again, in September of 2010, in the aftermath of the Deep Water Horizon oil disaster in the Gulf of Mexico, Congress appropriated an additional $15 million to aid in fisheries recovery. This program focuses primarily on "re-marketing" Gulf products in response to negative perceptions of the quality and availability of Gulf seafood brought on by the closure of Gulf waters for nearly five months. Specific actions currently being implemented include the establishment of a Gulf of Mexico Seafood Marketing Coalition to develop intermediate marketing strategies and long range plans aimed at regaining Gulf market shares and increasing product prices. It also involves third party certification of the sustainability and quality of Gulf products, the facilitation of a web based marketing program for use at the producer level, and expanded seafood testing opportunities to continually provide "Gulf Safe Seafood" assurances. The Oil Disaster Recovery Program (ODRP) will be funded by GSMFC via contracts with States, NGOs, State Health and Educational Institutions and where necessary professional service agencies through August 2015.

Also, during the year 2010, the Stock Assessment Enhancement Program (SAE) was created in response to the BP Deepwater Horizon disaster. Congress allocated $10M to conduct an expanded stock assessment of the fisheries of the Gulf of Mexico. Such expanded stock assessment shall include an assessment of the commercial and recreational catch and biological sampling, observer programs, data management and processing activities, the conduct of assessments, and follow-up evaluations of such fisheries. The funds ($6.15M) were appropriated to the Commission via a cooperative agreement in October 2010 and will be used to fund a variety of activities including state trip ticket operations, menhaden port sampling, implementation of for-hire logbook program and expansion of fishery-independent sampling in the Gulf of Mexico. These activities will be conducted from 2011 to 2015.

Economic Expectations

The Commission receives the majority of its revenue from the administration of contracts and grants related to fisheries resource management. The Commission expects continued growth in these services. Most costs associated with administering these agreements have been reasonably stable (allowing for inflation). The Commission has been working diligently to moderate these costs where possible. The Commission's prudent use of resources continues to position it well in providing services to its customers and member states of Texas, Louisiana, Mississippi, Alabama, and Florida.

Requests for Information

This financial report is designed to provide a general overview of the Gulf States Marine Fisheries Commission's finances for all those with an interest in the Commission's finances. Questions concerning any of the information in this report or requests for additional information should be addressed to the Chief Financial Officer, Gulf States Marine Fisheries Commission, 2404 Government Street, Ocean Springs, Mississippi 39564.

Financial Statements

Gulf States Marine Fisheries Commission
Statement of Net Assets - Modified Cash Basis
December 31, 2010

Assets	Governmental Activities
Current assets	
Cash in bank	$ 307,930
Noncurrent assets	
Post employment health plan investment account	97,625
Property and equipment, net of accumulated depreciation	179,040
Total noncurrent assets	276,665
Total assets	584,595
Liabilities	
Current liabilities	
DHHS payable	204
Payroll taxes payable	9,870
Section 125 cafeteria plan payable	4,869
Total current liabilities	14,943
Net assets	
Investment in general fixed assets, net of related debt	179,040
Unrestricted	390,612
Total net assets	$ 569,652

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Activities - Modified Cash Basis
For the Year Ended December 31, 2010

Functions/Programs	Expenses	Charges for Services	Operating Grants and Contributions	Net (Expense) Revenue and Change in Net Assets Governmental Activities
Primary government:				
Programs				
Collection & dissemination of commercial and recreational fisheries information	$ 6,020,835	$ -	$ 6,091,176	$ 70,341
lnterjurisdictional fisheries management	247,672	-	253,756	6,084
Coordination of recreational fisheries programs	184,099	-	190,162	6,063
Collection & dissemination of fishery - independent data and information	325,111	-	336,911	11,800
SEAMAP supplemental	41,505	-	42,768	1,263
Review and formation of habitat information	55,504	-	51,358	(4,146)
Study of aquatic nuisances	48,492	-	57,914	9,422
Fish and wildlife support services	71,041	-	70,824	(217)
Billfish research	577	-	-	(577)
Emergency disaster recovery program	27,073,575	-	27,090,832	17,257
Emergency disaster recovery program II	9,942,310	-	8,312,325	(1,629,985)
Aquaculture planning in the Gulf of Mexico	10,643	-	24,628	13,985
Economic data program	265,124	-	306,040	40,916
Oil disaster recovery program	28,830	-	28,890	60
Stock Assessment Enhancement	3,248	-	3,285	37
Other	667	-	-	(667)
Total	44,319,233	-	42,860,869	(1,458,364)
General and Administrative				
Local administration	158,550	22,570	90,000	(45,980)
Council activities	35,403	-	35,000	(403)
Total	193,953	22,570	125,000	(46,383)
Total primary government	$ 44,513,186	$ 22,570	$ 42,985,869	(1,504,747)
General revenues				
Other income				500
Post employment health plan revenue				17,648
Gain (loss) on sale of assets				550
Interest income				918
Unrealized gain (loss) on investments				8,089
Total general revenues				27,705
Change in net assets				(1,477,042)
Net assets, beginning				2,046,694
Net assets, ending				$ 569,652

See Notes to Financial Statements.

Gulf States Marine Fisheries Commission
Statement of Assets, Liabilities and Fund Balances-Cash Basis
Governmental Funds
December 31, 2010

	General Fund	Special Revenue Funds: RECFIN/ COMFIN Fund	Special Revenue Funds: EDRP Fund	Special Revenue Funds: EDRP II Fund	Special Revenue Funds: Other Funds	Total Governmental Funds
Assets						
Current assets						
Cash in bank	$307,726	$ -	$ 167	$ 37	$ -	$ 307,930
Noncurrent assets						
PEHP investment account	97,625	-	-	-	-	97,625
Total assets	$405,351	$ -	$ 167	$ 37	$ -	$ 405,555
Liabilities						
Current liabilities						
DHHS payable	$ -	$ -	$ 167	$ 37	$ -	$ 204
Payroll taxes payable	9,870	-	-	-	-	9,870
Section 125 cafeteria plan	4,869	-	-	-	-	4,869
Total liabilities	14,739	-	167	37	-	14,943
Fund Balances						
Fund balance - reserved for investments	97,625	-	-	-	-	97,625
Fund balance - unreserved	292,987	-	-	-	-	292,987
Total fund balances	390,612	-	-	-	-	390,612
Total liabilities and fund balances	$405,351	$ -	$ 167	$ 37	$ -	$ 405,555

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, 2010

Total fund balances - governmental funds	$	390,612
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		179,040
Total net assets - governmental activities	$	569,652

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, 2010

		Special Revenue Funds				
	General Fund	RECFIN/ COMFIN Fund	EDRP Fund	EDRP II Fund	Other Funds	Total Governmental Funds
Revenues:						
Member state appropriation	$ 90,000	$ -	$ -	$ -	$ -	$ 90,000
Other income	500	-	-	-	-	500
Interest income	918	-	-	-	-	918
Rent income	7,200	-	-	-	-	7,200
Post employment health plan revenue	17,648	-	-	-	-	17,648
Grant income	-	6,091,176	27,090,832	8,312,325	1,401,536	42,895,869
Registration fees	15,370	-	-	-	-	15,370
Proceeds from sale of assets	550	-	-	-	-	550
Unrealized gain on investments	8,089	-	-	-	-	8,089
Totals	140,275	6,091,176	27,090,832	8,312,325	1,401,536	43,036,144
Expenditures						
Personal services and benefits	78,357	472,164	94,304	24,411	773,330	1,442,566
Professional services	706	5,169,298	26,926,438	9,889,126	140,044	42,125,612
Other purchased services	31,034	275,513	43,366	21,462	341,914	713,289
Supplies and materials	1,476	103,859	9,467	7,311	62,627	184,740
Capital outlay	432	14,403	1,711	1,362	4,113	22,021
Totals	112,005	6,035,237	27,075,286	9,943,672	1,322,028	44,488,228
Excess (deficiency) of revenues over (under) expenditures	28,270	55,939	15,546	(1,631,347)	79,508	(1,452,084)
Other financing sources (uses)						
Interfund loans	153,696	(55,939)	(15,546)	(2,703)	(79,508)	-
Net change in fund balances	181,966	-	-	(1,634,050)	-	(1,452,084)
Fund balance - beginning	208,646	-	-	1,634,050	-	1,842,696
Fund balance - ending	$ 390,612	$ -	$ -	$ -	$ -	$ 390,612

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, 2010

Net changes in governmental fund balances	$(1,452,084)
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 $22,021 and depreciation expense amounted to $45,202.	(23,181)
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.	(1,777)
Change in net assets of governmental activities	$(1,477,042)

See Notes to Financial Statements.

Note A – Summary of Significant Accounting Policies

Operations – The Gulf States Marine Fisheries Commission was formally created with the consent of the 81st Congress of the United States granted by Public Law 66 and approved May 19, 1949. Congress authorized an interstate compact relating to the better utilization of the fisheries of the Gulf of Mexico. Parties to the agreement are the states of Alabama, Florida, Louisiana, Mississippi and Texas. The Commission's office is centrally located in Ocean Springs, Mississippi.

The Commission receives and expends such sums of money as shall from time to time be appropriated for its use by the participating governing authorities, and makes application for and receives and expends funds available under appropriated Federal Programs. The Commission may also receive and expend funds from any other sources not "prohibited by law".

The financial reporting entity – Gulf States Marine Fisheries Commission is a quasi-governmental corporation governed by a 15 member board. The Commission has no reportable component units.

Basis of accounting – The accompanying financial statements have been prepared on the modified cash basis of accounting. That basis differs from generally accepted accounting principles because the Commission has not recognized balances, and the related effects on earnings, of grant receivables from third party agencies and of accounts payable to vendors.

The Commission reports the following major governmental funds:

General Fund – This is the Commission's primary operating fund. It accounts for all financial resources of the Commission, except those required to be accounted for in another fund.

RECFIN/COMFIN Fund – This is the fund that is the Commission's program to collect, manage, and disseminate statistical data and information on the commercial and recreational fisheries of the Gulf of Mexico.

Emergency Disaster Recovery Program (EDRP) Fund – This is a program fund through which Federal Fisheries Disaster funds appropriated by Congress are distributed to assist the Gulf States in the restoration of damaged marine resources and to provide assistance to impacted fishermen.

Emergency Disaster Recovery Program II (EDRP II) Fund – This is an additional program fund through which Federal Fisheries Disaster funds appropriated by Congress are distributed to assist the Gulf States in the restoration of damaged marine resources and to provide assistance specifically to impacted commercial fishermen; small business and industry; domestic product marketing; and, seafood testing.

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

Additionally, the Commission reports the following non-major governmental fund types:

Special Revenue Funds – Special revenue funds are used to account for the proceeds of specific revenue sources that are restricted for specific projects or programs. The funds' principal revenue sources are grants and contracts from various federal and member state agencies.

Basis of Presentation – The Commission's basic financial statement consists of government-wide statements, including a statement of net assets and a statement of activities, and fund financial statements, which provide a more detailed level of financial information.

Government-wide Financial Statements:

The Statement of Net Assets and Statement of Activities display information about the Commission as a whole. They include all funds of the reporting entity. Governmental activities generally are financed through taxes, intergovernmental revenues and other nonexchange revenues.

The Statement of Net Assets presents the financial condition of the governmental activities of the Commission at year-end. The Government-wide Statement of Activities presents a comparison between direct expenses and program revenues for each function or program of the Commission's governmental activities. Direct expenses are those that are specifically associated with a service, program or department and therefore clearly identifiable to a particular function. Program revenues include charges paid by the recipient of the goods or services offered by the program and grants and contributions that are restricted to meeting the operational or capital requirements of a particular program. Revenues, which are not classified as program revenues, are presented as general revenues of the Commission with certain limited exceptions. The comparison of direct expenses with program revenue identifies the extent to which each governmental function is self-financing or draws from the general revenues of the Commission.

Fund Financial Statements:

Fund financial statements of the Commission are organized into funds, each of which is considered to be separate accounting entities. Each fund is accounted for by providing a separate set of self-balancing accounts that constitute its assets, liabilities, fund equity, revenues and expenditures/expenses. Funds are organized into one major category: governmental. An emphasis is placed on major funds within the governmental category.

Fixed assets – Fixed assets are recorded at actual cost. Contributed assets are reported at the estimated fair value at the time received. The Commission has adopted a policy of capitalizing assets with an acquisition cost of $5,000 or more. Depreciation is computed on the straight-line method over the estimated useful lives of the underlying assets.

Investments – Investments in equity securities with readily determinable fair values and all investments in debt securities are measured at their fair market value in the Statement of Net Assets–Modified Cash Basis. The unrealized gain or loss on investments is reflected in the Statement of Activities–Modified Cash Basis.

Income taxes – The Commission is exempt from income taxes as a governmental entity and is classified by the Internal Revenue Service as a governmental organization.

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, construction or improvement of those assets.

2. Restricted net assets – Consists of net assets with constraints placed on the use either by (1) external groups such as creditors, grantors, contributors, or laws or regulations of other governments; or (2) law through constitutional provisions or enabling legislation.

3. Unrestricted net assets – All other net assets that do not meet the definition of "restricted" or "invested in capital assets, net of related debt".

Fund Financial Statements:

Governmental fund equity is classified as fund balance. Fund balance is further classified as reserved and unreserved, with unreserved classified as designated and undesignated.

Estimates – The preparation of financial statements in conformity with the modified cash basis of accounting requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Note B – Concentration of Credit Risk

The Commission has maintained bank accounts at one financial institution. The account balances at December 31, 2010 may be shown as follows:

Description	Carrying Amount	Bank Balance
Regular accounts	$ 307,930	$ 327,479

The bank balances at December 31, 2010 are categorized as follows:

Amount insured or collateralized with securities held by the Commission or its agent in the Commission's name	$ 250,000
Uncollateralized, or held by the pledging financial institution's trust department or agent in the financial institution's name	77,479
Total bank balances	$ 327,479

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.

Investment Type	Category 1	2	3	Reported Amount	Fair Value
Van Kampen Equity & Income Fund Cl. A, 8,335.376 shares		X		$ 71,601	$ 71,601
Van Kampen Inter Corp Invt 45, 5 shares		X		5,102	5,102
Beal Bank CD		X		4,998	4,998
Cash		X		15,924	15,924
Totals				$ 97,625	$ 97,625

Note D – Property, Plant and Equipment

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

	Balance 12/31/09	Additions	Deletions	Balance 12/31/10
Restricted				
Vehicles	$ 84,670	$ -	$ -	$ 84,670
Office equipment	778,836	22,021	128,593	672,264
Totals	863,506	22,021	128,593	756,934
Unrestricted				
Land	20,000			20,000
Buildings	182,817			182,817
Office equipment	28,975			28,975
Totals	231,792	-	-	231,792
Less accumulated depreciation				
Restricted	804,834	39,577	126,817	717,594
Unrestricted	86,466	5,626		92,092
Totals	891,300	45,203	126,817	809,686
Governmental activities				
Net property and equipment:				
Restricted	58,672	(17,556)	1,776	39,340
Unrestricted	145,326	(5,626)	-	139,700
Totals	$ 203,998	$ (23,182)	$ 1,776	$ 179,040

Note E – 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, 2010 was $64,573. During 2009 the Commission became aware that the 403(b) plan was not the appropriate plan for the organization. As a result the Commission closed the old 403(b) plan and opened a new 401(k) plan. Participants are allowed to roll their balances to the new plan without penalties.

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, 2010 twelve (12) employees would qualify for this benefit. Assuming that all twelve (12) separated from service at that date, and utilizing their current sick leave hours and rates of pay then the computed value is $81,029. During the current year the Commission invested $17,648 to continue funding this benefit. This investment is shown on the Statement of Net Assets – Modified Cash Basis at its current market value of $97,625.

Any employee with twenty-five (25) years or more of service is provided full health insurance coverage in lieu of the above. This coverage is provided from date of separation until death.

Note H – Risk Management

The Commission is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Commission carries commercial insurance for these risks. Settled claims resulting from these risks have not exceeded insurance coverage in any part of the past three fiscal years.

Note I – Subsequent Events

Management has evaluated subsequent events through May 20, 2011, the date on which the financial statements were available to be issued.

Section III

Supplemental Information

Gulf States Marine Fisheries Commission
Budgetary Comparison Schedule
For the Year Ended December 31, 2010

	Budget			Actual			Over
	Operating Fund	Grant Funds	Total	Operating Fund	Grant Funds	Total	(Under) Budget
Revenues:							
Member state appropriation	$ 112,500	$ -	$ 112,500	$ 90,000	$ -	$ 90,000	$ (22,500)
Other income	-		-	500		500	500
Interest income	1,200		1,200	918		918	(282)
Rent income	7,200		7,200	7,200		7,200	-
Post employment health plan revenue			-	17,648		17,648	17,648
Grant income		116,092,118	116,092,118		42,895,869	42,895,869	(73,196,249)
Registration fees	12,000		12,000	15,370		15,370	3,370
Gain on sale of assets			-	550		550	550
Unrealized gain (loss) on investments			-	8,089		8,089	8,089
Totals	132,900	116,092,118	116,225,018	140,275	42,895,869	43,036,144	(73,188,874)
Personal costs							
Salaries	49,924	985,460	1,035,384	56,902	982,813	1,039,715	4,331
Payroll taxes	3,895	80,640	84,535	4,931	75,132	80,063	(4,472)
Health insurance	5,666	246,153	251,819	6,947	229,009	235,956	(15,863)
Retirement expense	3,995	74,795	78,790	3,990	60,584	64,574	(14,216)
Post employment health plan expense	1,567	7,104	8,671	5,587	16,671	22,258	13,587
Totals	65,047	1,394,152	1,459,199	78,357	1,364,209	1,442,566	(16,633)
Maintenance/Operations							
Facilities	-	7,200	7,200	-	7,200	7,200	-
Office supplies	1,255	133,706	134,961	(85)	116,845	116,760	(18,201)
Postage	1,000	27,725	28,725	451	16,276	16,727	(11,998)
Travel - committee	-	363,680	363,680	-	229,694	229,694	(133,986)
Travel - staff	15,000	118,707	133,707	10,433	77,513	87,946	(45,761)
Telephone	1,747	47,440	49,187	1,236	44,826	46,062	(3,125)
Office equipment	-	102,115	102,115	432	21,589	22,021	(80,094)
Copying expense	700	45,040	45,740	743	29,183	29,926	(15,814)
Printing expense	400	21,600	22,000	116	12,719	12,835	(9,165)
Meeting costs	14,000	77,900	91,900	11,166	61,102	72,268	(19,632)
Subscriptions & dues	3,000	3,400	6,400	2,567	1,086	3,653	(2,747)
Automobile expenses	291	16,000	16,291	251	8,238	8,489	(7,802)
Insurance	1,008	30,247	31,255	871	21,602	22,473	(8,782)
Maintenance	1,426	198,343	199,769	1,103	191,915	193,018	(6,751)
Professional expenses	624	607,626	608,250	703	417,353	418,056	(190,194)
Contractual	-	85,044,993	85,044,993	-	41,707,558	41,707,558	(43,337,435)
Utilities	1,145	25,280	26,425	731	18,516	19,247	(7,178)
Janitorial	360	28,786	29,146	1,038	28,799	29,837	691
Courtesies	2,000	-	2,000	1,892	-	1,892	(108)
Carryover expense	39,123	29,235,902	29,275,025	-	-	-	(29,275,025)
Totals	148,126	117,529,842	117,677,968	112,005	44,376,223	44,488,228	(73,189,740)
Excess of revenues over expense	$ (15,226)	$ (1,437,724)	$ (1,452,950)	$ 28,270	$ (1,480,354)	$ (1,452,084)	$ 866

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, 2010

Federal Grantor / Program Title	Catalog of Federal Domestic Assistance	Federal Expenditures
U.S. Department of Interior		
Aquatic Nuisance	15.608	$ 48,638
Sports Fish Restoration Program	15.605	184,684
Total U. S. Department of Interior		233,322
U.S. Department of Commerce		
Interjurisdictional Fisheries Management Plan	11.407	248,358
Distribution of Bottom Habitat Information in the Gulf of Mexico	11.433	667
Recreational Fisheries Information Network (RECFIN) and Commercial Fisheries Information Network (COMFIN)	11.434	6,035,236
Economic Data Program	11.434	266,591
Southeast Area Monitoring and Assessment Program (SEAMAP)	11.435	367,374
Billfish Research	11.454	577
Emergency Disaster Recovery Program	11.454	27,075,286
Emergency Disaster Recovery Program II	11.454	9,943,672
Habitat Conservation	11.463	55,669
Acquaculture Planning in the Gulf of Mexico	11.472	10,643
Stock Assessment Enhancement	11.472	3,285
Oil Disaster Recovery Program	11.477	28,890
Total U. S. Department of Commerce		44,036,248
Total expenditures of federal awards		$ 44,269,570

Note – This schedule was prepared using the same basis of accounting and the same significant accounting policies, as applicable, used for the financial statements.

See Independent Auditors' Report.

Section IV

Reports on Compliance and Internal Control

PILTZ, WILLIAMS, LAROSA & COMPANY

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Sam J. LaRosa, Jr., CPA (Retired)
William S. Thompson, CPA (Retired)
Gene M. Clark, Jr., CPA (Retired)

Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Board of Commissioners
Gulf States Marine Fisheries Commission
Ocean Springs, Mississippi

We have audited the financial statements of the governmental activities, each major fund and aggregate remaining fund information of Gulf States Marine Fisheries Commission as of and for the year ended December 31, 2010, which collectively comprise Gulf States Marine Fisheries Commission's basic financial statements and have issued our report thereon dated May 20, 2011. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered Gulf States Marine Fisheries Commission's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Gulf States Marine Fisheries Commission's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of Gulf States Marine Fisheries Commission's internal control over financial reporting.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of significant deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies, or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Gulf States Marine Fisheries Commission's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information and use of the Commission, management, others within the organization, and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Piltz, Williams, LaRose & Co.

Certified Public Accountants

Biloxi, Mississippi
May 20, 2011

PILTZ, WILLIAMS, LAROSA & COMPANY
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Independent Auditor's Report on Compliance with Requirements that could have a Direct and Material Effect on Each Major Program and on 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 Gulf States Marine Fisheries Commission's compliance with the types of compliance requirements described in the U.S. Office of Management and Budget (OMB) Circular A-133 *Compliance Supplement* that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2010. Gulf States Marine Fisheries Commission's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs. Compliance with the requirements of laws, regulations, contracts and grants applicable to each of its major federal programs is the responsibility of Gulf States Marine Fisheries Commission's management. Our responsibility is to express an opinion on Gulf States Marine Fisheries Commission's compliance based on our audit.

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of State, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about Gulf States Marine Fisheries Commission's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion. Our audit does not provide a legal determination on Gulf States Marine Fisheries Commission's compliance with those requirements.

In our opinion, Gulf States Marine Fisheries Commission complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2010.

Internal Control Over Compliance

Management of Gulf States Marine Fisheries Commission is responsible for establishing and maintaining effective internal control over compliance with the requirements of laws, regulations, contracts, and grants applicable to federal programs. In planning and performing our audit, we considered Gulf States Marine Fisheries Commission's internal control over compliance with the requirements that could have a direct and material effect on a major federal program to determine our auditing procedures for the purpose of expressing our opinion on compliance and to test and report on internal control over compliance in accordance with OMB Circular A-133, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Gulf States Marine Fisheries Commission's internal control over compliance.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identity all deficiencies in internal control over compliance that might be deficiencies, significant deficiencies, or material weaknesses. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above.

This report is intended solely for the information and use of the Commission, management, others within the organization and federal awarding agencies and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Piltz, Williams, LaRosa + Co.

Certified Public Accountants

Biloxi, Mississippi
May 20, 2011

Section V

Other Items

Gulf States Marine Fisheries Commission
Schedule of Findings and Questioned Costs
For the Year Ended December 31, 2010

Section 1 – Summary of Auditors' Results

1. An unqualified opinion was issued on the basic financial statements.

2. There were no significant deficiencies in internal control disclosed by the audit of the basic financial statements.

3. The audit did not disclose any noncompliance which is material to the basic financial statements.

4. 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 findings that are required to be reported in accordance with Section __.510(a) of OMB Circular A-133.

7. The major programs were: Recreational Fisheries Information Network and Commercial Fisheries Information Network and Economic Data Program – 11.434, Emergency Disaster Recovery Program I and II and Billfish Research – 11.454.

8. The dollar threshold used to distinguish between Type A and Type B Programs was $1,328,087.

9. The auditee does not qualify as a low-risk auditee.

Section 2 – Findings Related to the Financial Statements

None

Section 3 – Findings and Questioned Costs for Federal Awards

None

Gulf States Marine Fisheries Commission
Summary Schedule of Prior Audit Findings
For the Year Ended December 31, 2010

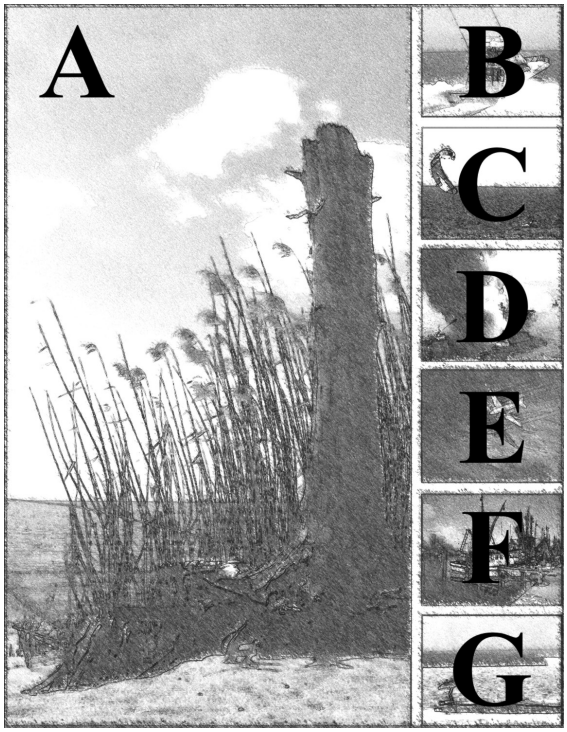
The following is an update of prior audit findings and is prepared in accordance with Office of Management and Budget Circular A-133, Section .315(b).

Prior Audit Finding 2009-01

Department of Commerce
Emergency Disaster Recovery Program II – CFDA No. 11.454

Summary of prior audit finding – Grant funds were advanced to a subrecipient who did not spend the advanced funds in a timely manner.

Status – Corrective action has been taken.



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Gulf States Marine Fisheries Commission
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