



ENHANCE ★ PROTECT ★ CONSERVE

# ANNUAL REPORT

FISCAL YEAR 2020

July 1, 2019 - June 30, 2020





On behalf of the Mississippi Advisory Commission on Marine Resources and our staff, I present to you the Mississippi Department of Marine Resources 2020 fiscal year annual report. We thank you for your continued support of the activities and programs we deliver to enhance, protect and conserve Mississippi's marine resources. It is our intention to remain transparent and accountable to you and the taxpayers of Mississippi through our efforts.

This annual report covers all aspects of our agency and contains valuable information about our work and its impact on marine resources. The agency continues to work with local and federal partners to deliver programs that benefit the citizens, tourists and industry stakeholders on the Gulf Coast. We have made great progress over the years, but there is always work to be done.

This past year, the world did what it could to navigate in the new COVID-19 environment. Thankfully, our agency was equipped with the ability to continue working in these new conditions and our agency never faltered. Communication among colleagues may have changed during those months, but our work never stopped.

During this time, our agency coordinated and administered the 2011 Mississippi Bonnet Carré Fisheries Disaster Recovery Program for the Oyster and Blue Crab Fisheries. Working in the safest environment possible for both the public and our employees, our agency was able to accept applications from commercial oyster and crab fishermen and processors to distribute funds to anyone affected by the Bonne Carré Spillway opening in 2011.

We take pride in our work, and it shows. We believe a healthy environment will provide for a healthy economy. Our goal is to be the Seafood Capital of the World and we will continue to work to achieve this goal every day. This essential work would not be possible without your support. We look forward to many successes together as we manage Mississippi's marine resources.



Joe Spraggins  
Executive Director







ENHANCE ★ PROTECT ★ CONSERVE

# ANNUAL REPORT

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**FISCAL YEAR 2020**

**July 1, 2019 - June 30, 2020**

The Mississippi Department of Marine Resources is dedicated to enhancing, protecting and conserving the state's marine interests by managing all marine life, public trust wetlands, adjacent uplands and waterfront areas to provide optimal commercial, recreational, educational and economic uses of these resources consistent with environmental concerns and social changes.

This annual report was prepared by the Mississippi Department of Marine Resources, Office of the Executive Director, with contributions from staff.  
Fish Illustrations: Joe Jewell© • Photos: David Salters (*cover*), William Lee (*inside cover*), Charlie Taylor (*table of contents*), Evan Grimes (*pg.1*), Adriana Guess (*pg.11*), Sylvia Anderson (*pg.17*), Patricia Richardson (*pg.30*), Mitchell Hudgins (*page 49*), David Walker (*page 51*), Alicia Carron (*pg.55*), Gail Jakubiak (*inside back cover*) and MDMR Staff

# ORGANIZATIONAL STRUCTURE

**GOVERNOR OF MISSISSIPPI**

**ADVISORY COMMISSION ON MARINE RESOURCES**

**EXECUTIVE DIRECTOR  
DEPARTMENT OF MARINE RESOURCES**

**• LEGAL COUNSEL  
• TIDELANDS TRUST**

- COASTAL RESOURCES MANAGEMENT
- COASTAL RESTORATION AND RESILIENCY
- FINANCE & ADMINISTRATION
- GRAND BAY NATIONAL ESTUARINE RESEARCH RESERVE
- MARINE FISHERIES
- MARINE PATROL







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# EXECUTIVE OFFICE

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The programs and services within the Executive Office of the Mississippi Department of Marine Resources (MDMR) provide operational support to all other programs within the MDMR.

These programs include:

- Human Resources
- Information Technology
- Property Management
- Gulf of Mexico Energy Security Act
- Derelict Vessels
- Public Affairs



**Joe Spraggins**  
*Executive Director*



# HUMAN RESOURCES

*Director: Christy Royals*



Human Resources provides services to employees and the public in the following areas: job recruitment, selection and retention, job classification, compensation and organizational structure. Staff also manage personnel budgeting and compliance, professional training and education, benefits administration, leave policy interpretation, Workers' Compensation administration, performance development system and personnel records management. Human Resources ensures compliance with applicable state and federal laws and provides oversight of the employee discipline process. Staff also provide consistent administrative support to MDMR managers, including documentation of the organizational structure, comprehensive personnel policies and associated administrative activities.

## GOALS:

- Attract and retain the best talent.
- Recognize and acknowledge achievements.
- Compensate employees appropriately and provide adequate benefits.
- Facilitate professional growth and career development.
- Provide support and information to managers and employees.

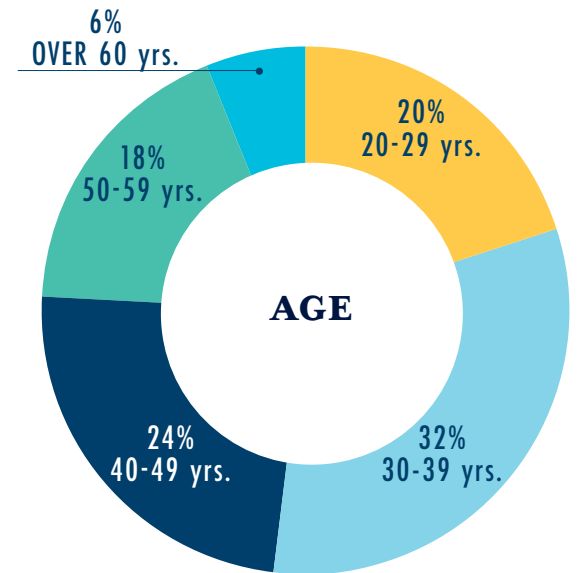
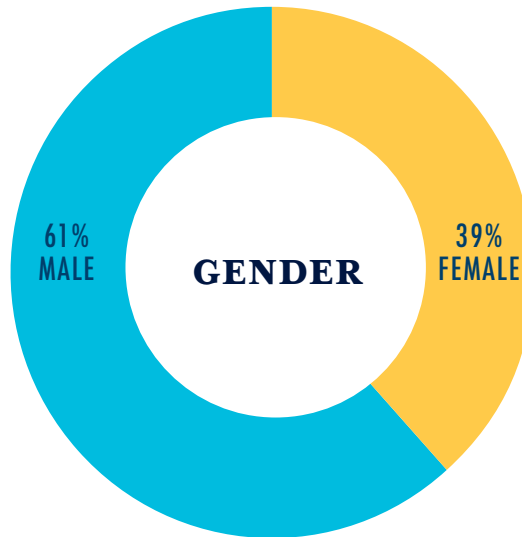
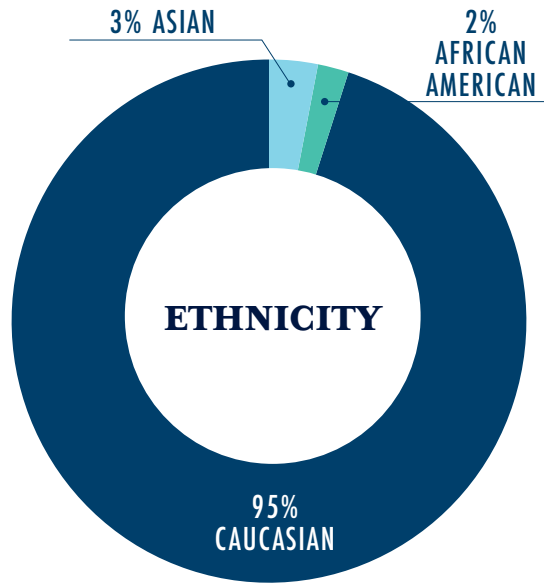
## ACCOMPLISHMENTS:

- Maintained compliance of personnel budget and expenditures required by Appropriation Bill and the Mississippi State Personnel Board (MSPB).
- Recruited for 39 positions, resulting in 27 new-hires and 12 internal promotions.
- Conducted New Employee Orientation and completed on-boarding process for new employees throughout the year.
- Established resources for employees in response to the COVID-19 pandemic, including communication of state and federal guidelines, teleworking, testing information, illness reports and related resources to help employees stay safe and reduce risks of exposure to the virus.
- Coordinated MDMR Wellness Program in conjunction with Mississippi State Personnel Board Wellness Initiative, and facilitated on-site screenings for high blood pressure, diabetes, skin cancer and scheduled flu shots through Memorial Health Clinic.
- Initiated review and update of MDMR employment policies and procedures and designed new format for website accessibility.
- Communicated details of benefit plans, contact information and employee premiums during annual Benefits Open Enrollment process.



– **DEMOGRAPHICS FOR MDMR** –

*Total Number of State Employees: 154*



– **SALARY AVERAGES** –





# INFORMATION TECHNOLOGY

*Director: Brian Sherwood*



Information Technology consists of two functional teams: IT operations and Geographic Information Systems (GIS).

## GOALS:

- Provide a secure, reliable computing infrastructure that enables rich data collection and analysis capabilities, fosters collaboration and empowers the end-users to maximize productivity.
- Create innovative, custom-built solutions that significantly improve workflow, user productivity and data quality.

## ACCOMPLISHMENTS:

- Continued to support and improve GIS-integrated computer-aided dispatch and records management system to enhance the capabilities of Marine Patrol.
- Implemented new coastal permitting system for improved customer access and timelier permit completion.
- Partnered with the Grand Bay NERR to complete an invasive species vegetation mapping project covering over 220 acres which utilized new UAS capabilities and machine learning-based image processing.
- Maintained 12 custom GIS-based data collection and viewing solutions, including four for the public.
- Maintained a secure MDMR website and developed and launched two new program sites to improve agency outreach capabilities.
- Maintained UAS fleet for enhanced imaging capabilities, including search and rescue.
- Maintained multi-site weather station network to provide real-time data both internally and to the public.
- Engaged in external collaboration and partnership activities. This includes hosting and participating in the seventh annual statewide GIS conference, representing both MDMR and the State of Mississippi, advocating the 3D Nation for the U.S. Geological Survey.
- Enhanced live streaming capabilities of Commission on Marine Resources meetings for greater public access during COVID-19.
- Participated in multi-jurisdictional public/private sector exercise to respond to environmental disasters.
- Designed and deployed multi-camera monitoring platform for new secure vehicle compound.
- Continued modernization activities for desktops, servers and network infrastructure.
- Migrated agency production server infrastructure to new servers and virtualization platform, improving fault tolerance and reliability for critical systems.
- Deployed new backup/disaster recovery platform to improve agency's readiness capability.
- In response to COVID-19, rapidly provided new technology and workflow solutions to enable agency staff to work remotely while maintaining, and in some cases improving, operational efficiency.
- Completed 1,748 agency work orders.



## PROPERTY MANAGEMENT

Property Manager: Vandy Mitchell



The mission of the Property Management office is to maintain accountability for all state property under the control of the MDMR and maintain all pool vehicles and vessels to ensure their operational readiness.

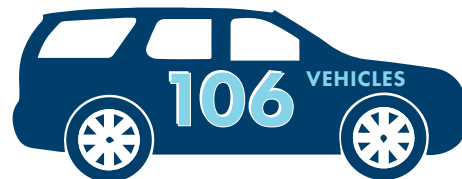
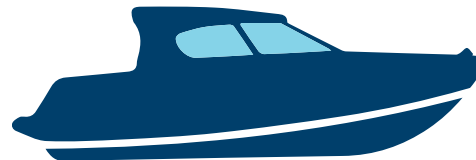
### GOALS:

- Continue improving accountability of all assets owned by the Mississippi Department of Marine Resources.
- Ensure all items that are required by law are listed on inventory.
- Ensure that state vehicles are properly maintained throughout their lifespan.
- Improve diagnosis when troubleshooting marine vessel repair.

### ACCOMPLISHMENTS:

- Accounted for each inventory item during the FY20 property audit conducted by the State Auditor's Office.
- Updated the MDMR fleet and disposed of high-mileage vehicles that had become costly to maintain.
- Purchased a diagnostic computer for marine vessels that will reduce costly repairs through preventative maintenance.

**\$32,645,124**  
**VALUE OF ALL MDMR PROPERTY**



State regulations require the agency to report fuel and maintenance records of all vehicles in MAGIC.



# GULF OF MEXICO ENERGY SECURITY ACT

*Project Manager: Russell Weatherly*



The signing into law of the unprecedented Gulf of Mexico Energy Security Act (GOMESA) in December 2006 created an opportunity for the State of Mississippi in terms of its potential magnitude and significance. This landmark legislation enables Mississippi and its neighbor offshore energy-producing states –Alabama, Louisiana and Texas – to share in royalties from revenues generated through federal oil and gas leases on the Outer Continental Shelf (OCS), royalties that prior to GOMESA’s enactment were deposited in their entirety into the Federal Treasury.

The intent of GOMESA’s revenue-sharing provision is to provide resources to the coastal states to offset the potentially harmful effects of energy production within - and adjacent to - the Gulf of Mexico, such as coastal erosion, habitat degradation and natural resources depletion.

## GOALS:

- Drive programmatic coastal ecological and physical restoration.
- Advance resiliency efforts to increase the capacity of human and natural and physical systems to adapt and recover from change.
- Improve the economic well-being of the Mississippi Gulf Coast.
- Enhance the quality of life for those who live, work, visit and do business on the Gulf Coast.

## ACCOMPLISHMENTS:

GOMESA distributed \$22,960,000 to six projects in FY19 and \$20,850,000 to 18 projects in FY20 that met the following primary purposes:

- Projects and activities for the purposes of coastal protection, including conservation, coastal restoration, hurricane protection and infrastructure directly affected by coastal wetland losses.
- Mitigation of damage to fish, wildlife or natural resources.
- Implementation of a federally-approved marine, coastal or conservation management plan.
- Mitigation of the impact of activities through funding of on-shore infrastructure projects.
- Planning assistance and the administrative costs of complying with this section (not more than 3 percent).



▶ Ribbon cutting for the outfalls in Biloxi with former Governor Phil Bryant.



## GOMESA PROJECTS UPDATE FOR FY2020

1. Mississippi Aquarium project has been completed and is now open.
2. USM-Ocean Enterprise project has yet to begin construction of the building.
3. Audubon nature-based tourism is progressing and will continue into next year with monitoring of the species.
4. Port of Pascagoula contaminant removal project has been completed.
5. East Biloxi Boardwalk project is still in the engineering stage, but construction is expected to begin soon.
6. East Biloxi sand re-nourishment project has completed the needs survey and should begin within the next three months.
7. Coffee Creek outfall and Coffee Creek water quality projects are proceeding into bid stages and are about to begin.
8. MDWFP-Buccaneer State Park enhancement project is still in the engineering stage.
9. Bayview Avenue living shoreline project is finishing engineering phase and is about move into construction phase.
10. Bay St. Louis Ward 6 boat launch project has completed land purchase and construction should begin within 60 days.
11. Harrison County sea oats and sand dunes project is roughly 50% complete. More plants to be purchased and planted this fiscal year.
12. Infinity Science Center completed 103 acres of forestry mowing, three acres of native grasses planted and control burn in planning stage.
13. MSU-IMMS completed evaluation study that included 24 dolphin photo ID surveys, eight surveys of Lake Borgne, 10 surveys of Biloxi Marsh, 1,663 dolphins identified and three sea turtles tagged for tracking.
14. Jackson County Front Beach erosion control is still in engineering stages.
15. USM-Aquaculture depth control unit equipment and materials have been purchased, work groups established, prototypes designed, constructed and are being tested.
16. MDMR artificial reef construction has begun and material has been deployed and placed at one of two locations.
17. Hancock County water/sewer force main crossings construction began in August 2020.

*All of the above projects faced significant delays due to COVID-19 and a very active storm season.  
New proposals are currently being considered at a later time.*

## DERELICT VESSELS

*Coordinator: Russell Weatherly*



The Derelict Vessel Program was established by the Legislature in Section 49-27-71 of the Mississippi Code of 1972, giving MDMR the authority to remove any vessel which has been determined to be a public safety or environmental hazard.

When vessels ranging in size from 10 to over 200 feet are abandoned in Mississippi's coastal wetlands or areas of heavy use by commercial and recreational boaters, the derelicts are hazardous to navigation and detrimental to the wetland environment. In addition, a vessel may be determined as derelict if it has been submerged or abandoned in or on coastal wetlands in excess of 30 days, reducing the waiting period by 60 days. This program enforces state laws through the removal and disposal of derelict vessels, which protects the environment and keeps coastal wetlands and navigable waterways safe for the general public.

Removal of derelict vessels this year faced several challenges. A very active storm season and COVID-19 restrictions severely hampered progress. No vessels were determined to pose any navigational or environmental threat. We are prepared for, and fully expect, a more active response to derelict vessels in the coming year.





## PUBLIC AFFAIRS

Director: Charmaine Schmermund



The Public Affairs Bureau provides a proactive program of community outreach, education, public information and legislative and media relations. These outreach efforts promote awareness of the MDMR and its roles, responsibilities and programs in balancing economic interests with enhancing, protecting, managing and conserving Mississippi's marine resources. This bureau participates in events throughout the community and distributes information through news releases, social media sites, brochures, a rules and regulations book, calendar, photographs and content for the MDMR website. Public Affairs also provides support to other offices and programs within the agency to create consistent, professional materials to further the agency's mission. The Seafood Marketing program is contained within Public Affairs, and it markets the sale and consumption of Gulf seafood to people throughout Mississippi and the southeastern region of the country.

### GOALS:

- Promote the agency and its mission throughout the community by sponsoring and participating in events and distributing information and promotional items.
- Provide the general public and specific user groups with comprehensive, consistent education and information about the programs within the agency.
- Promote the responsible use of marine resources.
- Raise awareness about the importance of purchasing and using Gulf seafood by fostering relationships among fishermen, restaurants, chefs and the public.

### ACCOMPLISHMENTS:



Participated in **41 EVENTS** throughout the state to educate the public about the agency and MS Seafood.



**LAUNCHED NEW WEBSITES** for both MDMR and MS Seafood to streamline information for online visitors. The websites feature new technological capabilities and allow the agency to better manage both websites.



Provided **18 SPONSORSHIPS OR MARKETING OPPORTUNITIES** to promote MDMR and MS Seafood on the Coast and throughout Mississippi and the eastern region.



Printed **50,228 BROCHURES AND PROMOTIONAL ITEMS**, which are used to increase awareness of the MDMR brand and educate the public about coastal resources and fishing rules and regulations.



Mississippi Seafood and agency staff participated in the first-ever **ONE COAST DAY AT THE NESHOBAMA COUNTY FAIR** in August. Many agencies and organizations from the Gulf Coast attended One Coast Day to promote everything our Mississippi Gulf Coast has to offer.





# FINANCE

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The Office of Finance and Administration is comprised of three bureaus:

- Finance and Accounting
- Grants Administration
- Procurement

Bureau directors report to the Chief Financial Officer. This office is responsible for the annual budget for the Mississippi Department of Marine Resources (MDMR), accounts payable and receivable, payroll, travel, license sales, state and federal grants administration and procurement of all goods and services for the agency.



**Leslie Brewer**  
*Chief Financial Officer*

## GOALS:

- Continue with training and education for all employees in the Finance Office, including internal training and sessions hosted by such agencies as the Mississippi Department of Environmental Quality, U.S. Fish and Wildlife Service and NOAA.
- Update policies and procedures to ensure processes are compliant with all state and federal laws and procedures.
- Develop internal handbooks for the bureaus to establish specific policies for each one.
- Follow all state statutes, laws and regulations as set out in applicable sections in the Mississippi Code 1972 Annotated and the Mississippi Agency Accounting Policies and Procedures Manual, as well as the Code of Federal Regulations.

## ACCOMPLISHMENTS:



*Managed*  
**58 GRANTS**  
for \$51 million

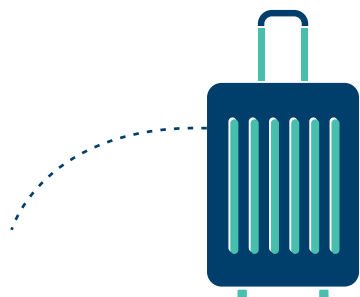
*Began* **55**  
**CONTRACTS**  
*that are currently active*



paid  
**541**  
**VENDORS**



a total of  
**\$25.9**  
**MILLION**



*processed* **204** travel  
authorizations

Sold nearly 6,000 licenses  
for MDMR and the  
Mississippi Department  
of Wildlife, Fisheries and Parks.



**2,731**  
MDMR COMMERCIAL

**688**  
MDMR RECREATIONAL



**82,771**  
WILDLIFE, FISHERIES  
& PARKS



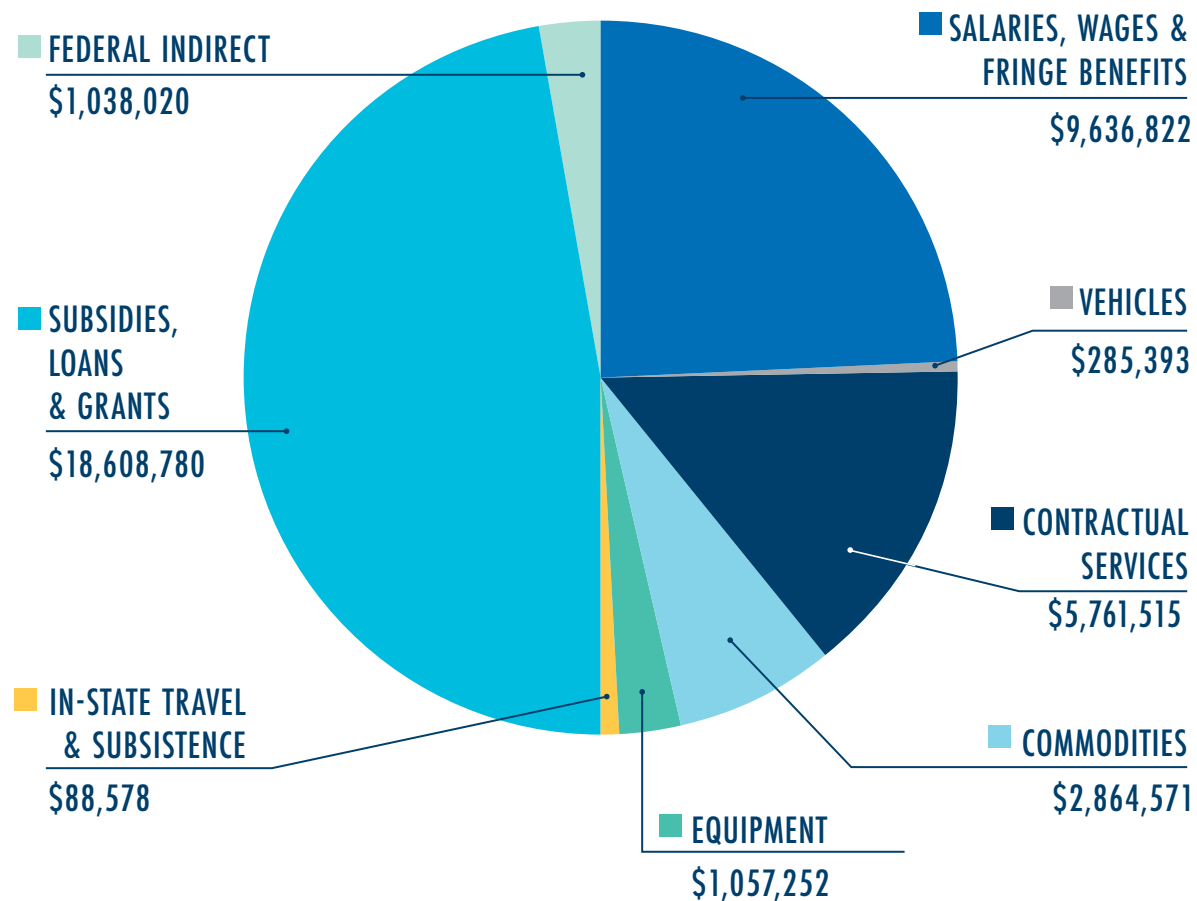
## FINANCE AND ACCOUNTING BUREAU

Director: Shavay Gaines



This bureau is responsible for annual budgets, monthly and intermittent financial reporting and reconciliation, accounts payable, payroll, travel and license sales. It is made up of a finance and accounting director, professional accountant, accounting specialist intermediate, payroll and travel manager, payroll and travel coordinator and licensing agent.

### – AGENCY EXPENSES BY CATEGORY –



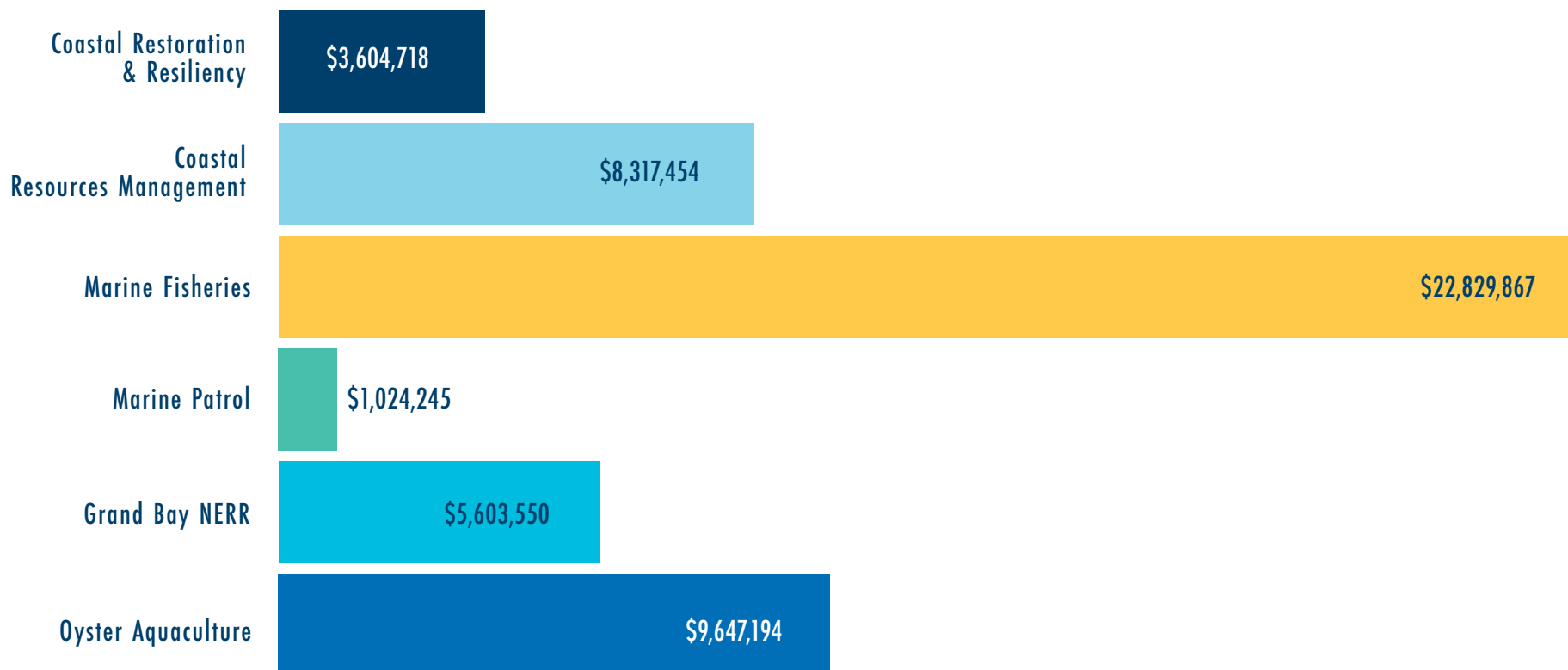
## GRANTS ADMINISTRATION BUREAU

Director: Robin Zantow



The Grants Bureau was established in May 2014 to serve as the clearinghouse for all grants awarded to or awarded by MDMR. This bureau provides oversight of all state and federal grants, including allowable spending, budgetary support and resource management. This bureau also is responsible for adhering to all federal, state and agency compliance requirements related to grants. It is made up of a grants director and two grants administrators.

### – SUMMARY OF FUNDING MANAGED BY GRANTS BUREAU –



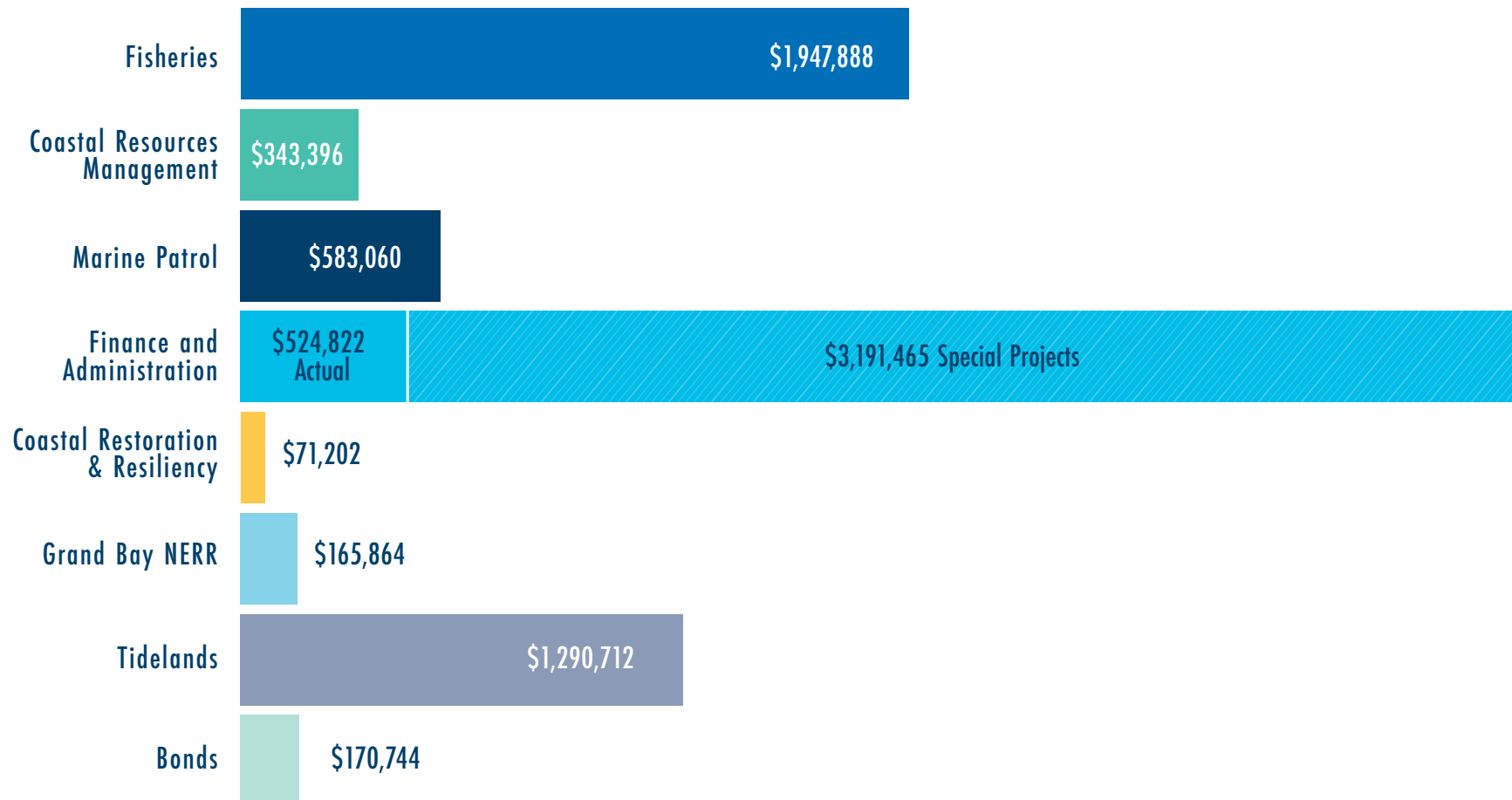
## PROCUREMENT BUREAU

Director: Rick Kinnard



The Procurement Bureau is responsible for all purchasing administration. This includes commodities and services using the quote and purchase-order processes, as well as smaller purchases made using procurement cards. This bureau also is responsible for agency purchasing contracts using a structured procurement process that can include requests for qualifications/proposals, memorandums of agreement and memorandums of understanding. It is made up of a procurement director, lead contracts analyst, purchasing agent and procurement specialist.

### – PURCHASE ORDERS BY OFFICE & BUREAU –



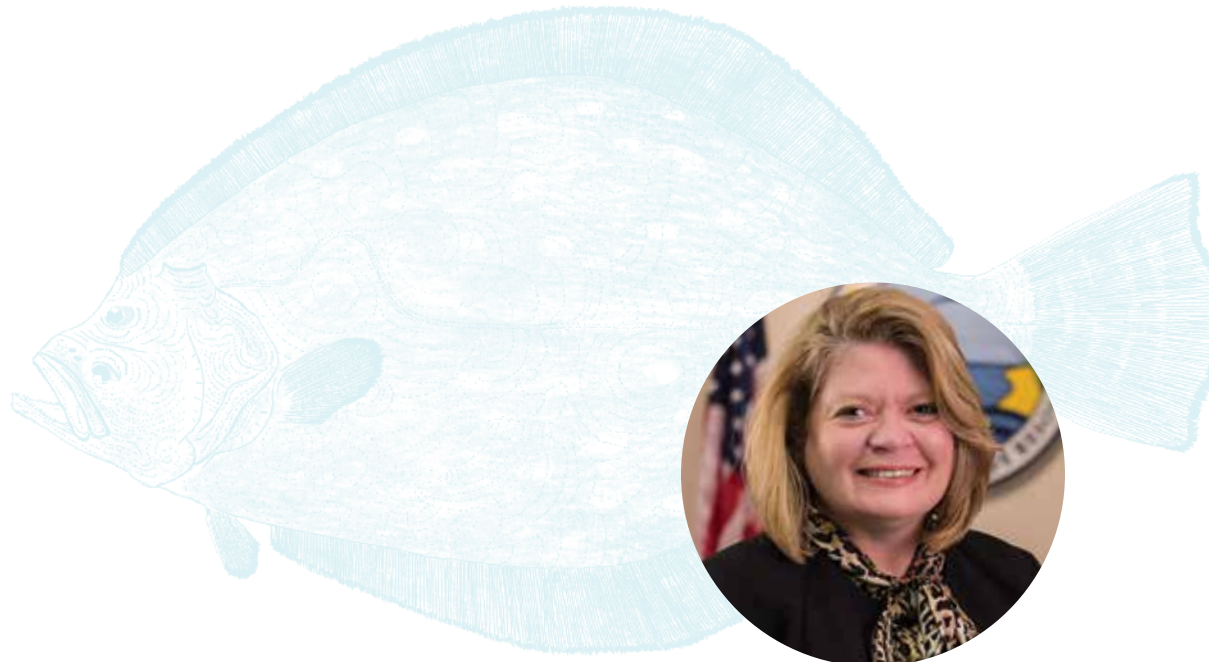




# TIDELANDS

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Tidelands are lands that are covered and uncovered daily by water from the action of the tides, up to the mean line of the ordinary high tides. The Tidelands Trust Fund is comprised of funds derived from the lease of tidelands and submerged lands and is administered by MDMR as mandated by state law. The Secretary of State's Office presents the Tidelands check to Mississippi Department of Marine Resources (MDMR) officials and legislators each year.



**Sonja Slater**  
*Coordinator*

The state Legislature each year approves Tidelands funding for MDMR to administer through the Tidelands Program. This action is authorized through the Mississippi Code of 1971 Section 29-15-9 and Section 29-15-10.

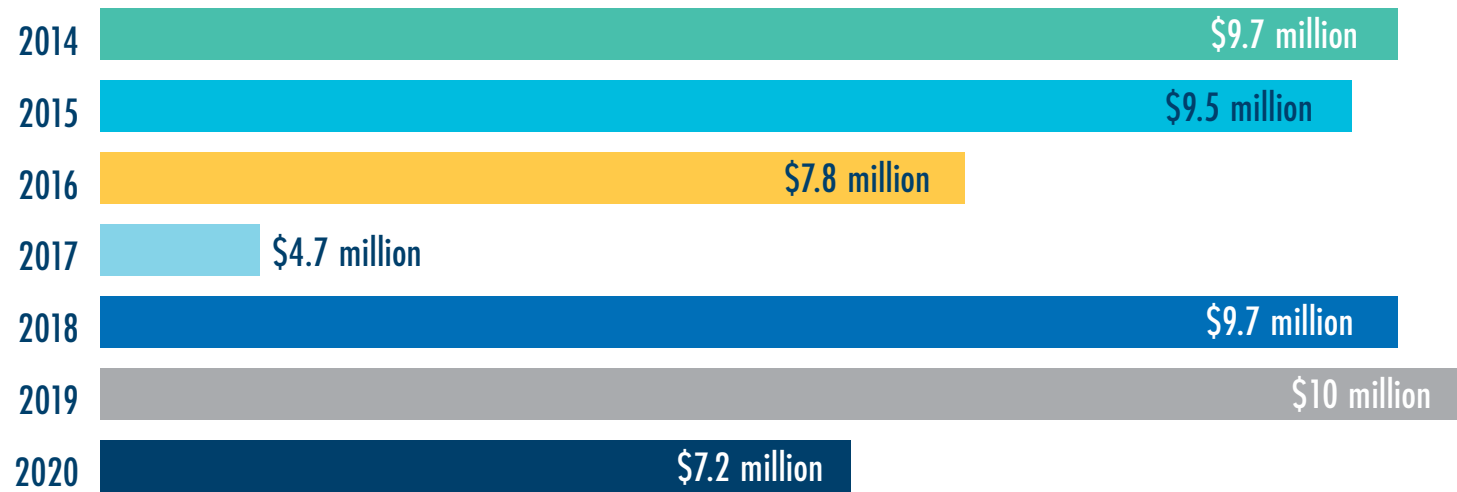
During 2019, through HB 1656, the Legislature approved \$11 million in funding. In the 2020 session, the Legislature approved \$7.3 million in projects through HB 1726. Currently Tidelands has 158 open projects, 86 public access projects and 72 managed projects.

**– THE LEGISLATURE APPROVED THE FOLLOWING PROJECTS –  
DURING THE 2020 SESSION FOR FUNDING IN FY21:**

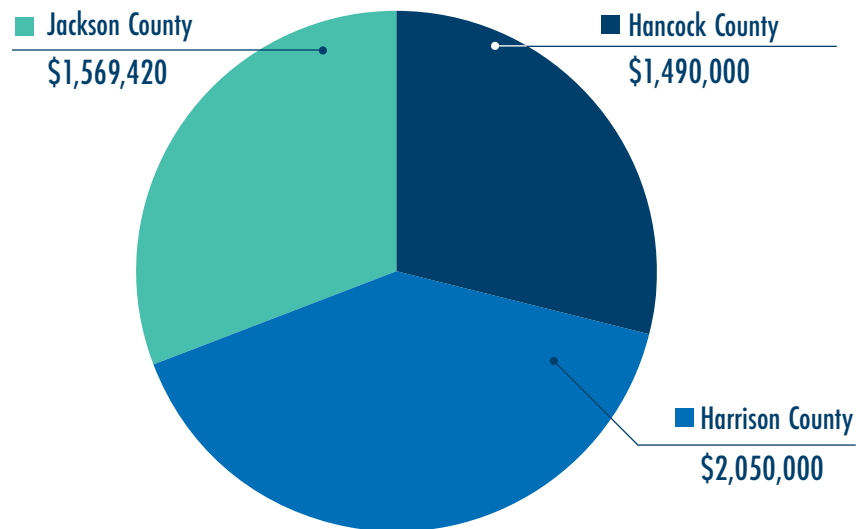
HARRISON COUNTY	JACKSON COUNTY	HANCOCK COUNTY
W. Biloxi Boat Launch (City of Biloxi)	Improvements for Pubic Access at Porter Avenue and Hwy 90(City of Ocean Springs)	BSL Municipal Harbor Fuel Dock (City of Bay St. Louis)
Kuhn Street Boat Ramp Expansion (City of Gulfport)	Shepard State Park (City of Gautier)	Pagodas and Showers (City of Waveland)
Brodie Bayou Public Access & Restoration, Phase 3 (City of D'Iberville)	Mary Walker Bayou (City of Gautier)	Diamondhead Noma Drive Public Access Improvements (City of Diamondhead)
FY21 Long Beach Harbor Improvements (City of Long Beach)	Point Park Amenities (City of Pascagoula)	Hancock County Bayou Caddy Marina Expansion (Hancock County)
East Small Craft Harbor Improvements (City of Pass Christian)	HWY 613 Sunset Pier and Sidewalk Extension (City of Moss Point)	Oyster Brood Stock Enhancement (City of Bay St. Louis)
Public Education & Outreach Program (Institute for Marine Mammal)	Fort Bayou Pier Extension and Shade Roofs (Jackson County Board of Supervisors)	
Biloxi River Park and Restoration at Eagle Point (City of Biloxi)	GCRL Public Access Enhancement (University of Southern Mississippi)	
Eagle Point Canal Cleanup (City of Biloxi)		
Hiller Park Boat Launch (City of Biloxi)		
Long Beach Pavilion (City of Long Beach)		



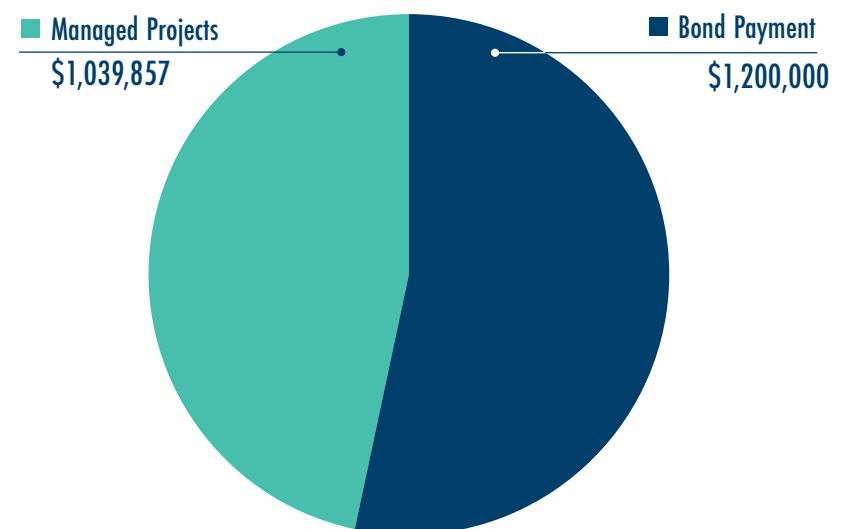
### - TIDELANDS FUNDING HISTORY -



### - TIDELANDS PUBLIC - ACCESS PROJECTS FUNDING



### - TIDELANDS MANAGEMENT - PROJECTS FUNDING

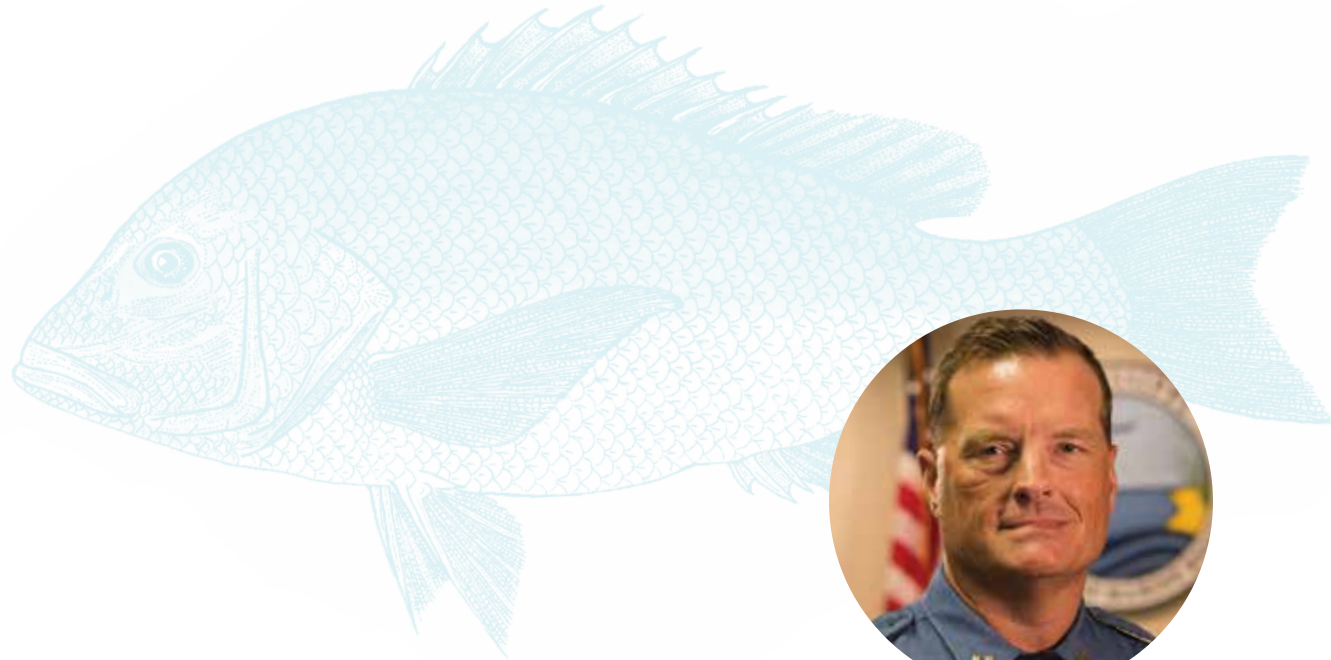




# MARINE PATROL

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The Office of Marine Patrol provides marine enforcement of federal and state laws and the ordinances of the Commission on Marine Resources for the protection, preservation and conservation of Mississippi's seafood, aquatic life and associated coastal wetlands habitats. Marine Patrol also carries out the enforcement of state and federal laws pertaining to boating safety and provides emergency assistance concerning the state's marine environment.



**Kyle Wilkerson**  
*Marine Patrol Chief*



## MARINE PATROL IS COMPOSED OF THREE DIVISIONS

### PATROL DIVISION

Handles the majority of service calls. The Patrol Division ensures the safety for all citizens while enjoying the Mississippi waterways. The Patrol Division conducts boat and water safety classes, handles special events on marine waters, protects marine life and enforces seafood laws throughout the State of Mississippi with seafood retailers and restaurants. Marine Patrol's area of responsibility covers the three coastal counties expanding out 200 miles offshore ensuring the Magnuson-Stevens Fishery Conservation and Management Act is enforced.

### INVESTIGATIVE DIVISION

Responsible for the following units: conservation investigations, internal affairs, dive team, JEA Program Coordinator, BUI enforcement unit, boat accident investigation/reconstruction, waterborne death investigations and inter/intra-state seafood enforcement, including imported non-native species.

### ADMINISTRATIVE DIVISION

Responsible for the following units: Training Coordinator, Communication Division, Marine Patrol Reserve Officers, Emergency Operations Coordinator, Grants Liaison and Community Outreach.

## GOALS:

- Certify officers in advanced boating accident investigation and reconstruction to better serve the public during complex investigations into serious vessel accidents.
- Further strengthen relationships with Northern Gulf Agency Partners and the Mississippi Office of the Attorney General, to explore new areas of law enforcement needed in the Mississippi Sound and Gulf of Mexico.
- Utilize technology, such as the Computer Aided Dispatch (CAD) and mapping capability, to increase officer safety.
- Work with the derelict vessel program to obtain funding and enforce stricter penalties to hold derelict vessel owners accountable.
- Continue to fortify our Search and Rescue Team to ensure efficient responses, including in neighboring states.
- Increase Dive Team capabilities by uniting with teams across the region to increase response efficiency.

## ACCOMPLISHMENTS:

- Worked diligently to ensure consumers were receiving desirable seafood, including performing over 160 inspections on local seafood retailers and vendors.
- Implemented a beautification process on the Mississippi Gulf Coast by streamlining the process of removing derelict vessels in local tributaries and waterways.
- Increased the capabilities of the MDMR Dive Team by certifying more Public Safety Divers and equipped the team with enhanced dive equipment allowing them to respond efficiently and safely to operations on the Mississippi Gulf Coast.
- Utilized technology to increase patrol efforts, as well as fortify search and rescue efforts.
- Established a Special Operations Group to assist local, state and federal partners in the detection and examination of complex seafood investigations.
- Worked closely with other agencies strengthening security in the northern Gulf of Mexico, and with the help of a federal grant, purchased two vessels tasked (allocated) to patrolling our marine borders.
- Provided resource protection to Cat Island by providing routine boat and ATV inspections on the island.



*answered and initiated*  
 **11,700**  
 CALLS FOR SERVICE

*processed* —   
**14** PUBLIC  
 RECORDS REQUESTS

OFFICERS *and/or*  
 STAFF MEMBERS  
 – *participated in* –


**874**  
 HOURS OF TRAINING

*at a variety  
 of schools.*



**THE MARINE PATROL RESERVE UNIT**  
 supported the agency's objectives by contributing  
**631 NON-COMPENSATED MAN HOURS**  
 assisting with regular patrols and marine events

*responded to*  
 **30**  
**VESSEL ACCIDENTS**  
 eight resulting in injuries

 **4**  
*responded to*  
**DROWNINGS**  
 due to a vessel accident or  
 other water-related incident

#### THESE PATROLS RESULTED IN THE FOLLOWING NUMBERS FOR CITATIONS AND WARNINGS:

<b>350</b>	Fisheries Violations
<b>223</b>	Boating and Water Safety Violations
<b>17</b>	Boating Under the Influence (BUI)
<b>4</b>	Wetlands Violations
<b>18</b>	Miscellaneous Violations
<b>255</b>	Courtesy Citations
<b>15</b>	Marine Litter Citations

#### NOTABLE FISHERIES VIOLATIONS:

<b>4</b>	Possession of Red Snapper in a closed season
<b>14</b>	Possession of undersized Red Snapper
<b>210</b>	Red Snapper seized
<b>32</b>	Failure to register for Tails N' Scales
<b>34</b>	Possession of undersized Spotted Seatrout
<b>14</b>	Undersized Red Drum





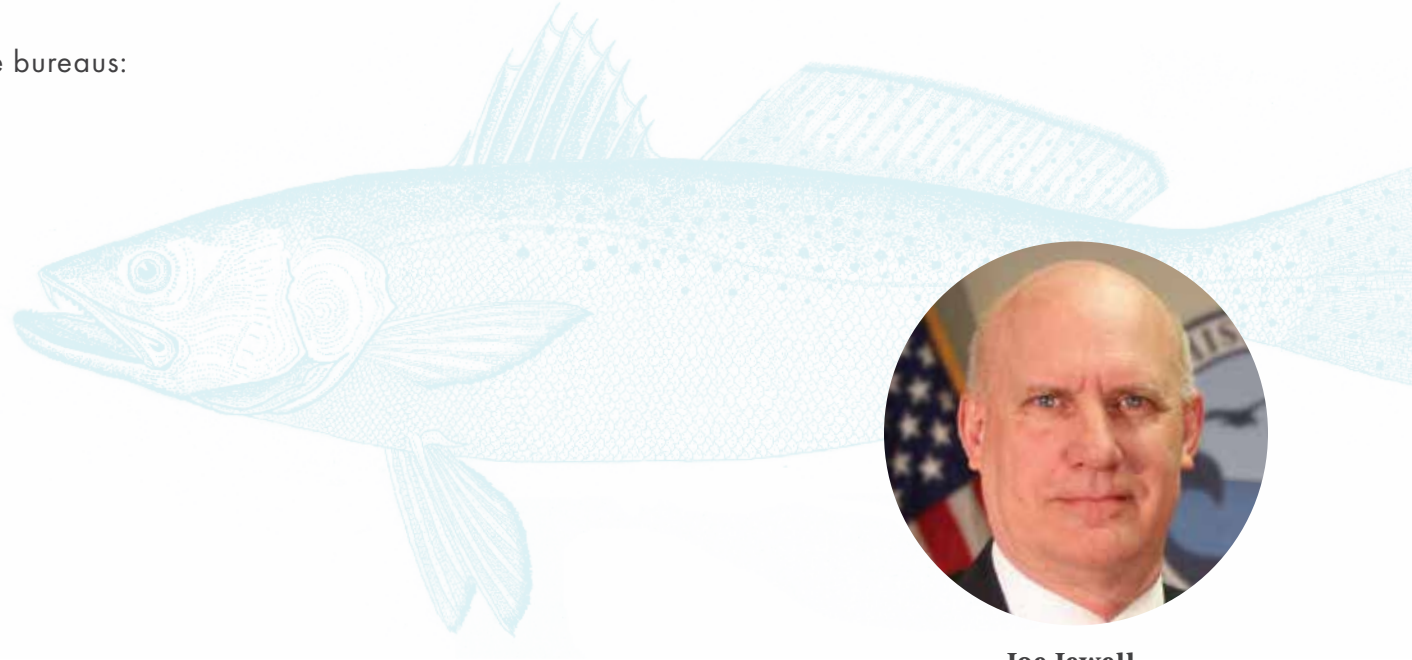
# MARINE FISHERIES

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The Office of Marine Fisheries provides for the effective management of the state's commercial and recreational marine fisheries, including oysters, shrimp, crabs and finfish. It includes conservation and overall management of marine resources through research and data collection as modified by relevant social, economic and biological factors. Marine Fisheries uses the most appropriate methods for management, including but not limited to, regulating harvesting, habitat enhancement, water quality monitoring for molluscan shellfish harvesting, setting of catch limits and seasons and seafood safety inspections of processing and distribution facilities.

Marine Fisheries is comprised of these bureaus:

- Artificial Reef
- Finfish
- Seafood Technology
- Shellfish
- Shrimp and Crab



**Joe Jewell**  
*Director*

## GOALS:

- Utilize over \$1.5 million Coronavirus Aid, Relief and Economic Security (CARES) Act Section 12005 funds awarded to assist in the recovery efforts of Mississippi's seafood-related businesses such as commercial fishing, processing, marine aquaculture and charter for-hire.
- Develop NOAA-approved spend plan for over \$21 million 2019 Bonnet Carré Emergency Disaster Recovery Program funds to monitor and assist the recovery of Mississippi's fisheries.
- Construct and establish the Office of Marine Fisheries dry laboratory and expand the Office of Marine Fisheries wet laboratory to improve the state's capability to complete complex seafood sample analysis and safety testing.
- Design and initiate projects for the collection and analysis of data required for population dynamics estimates and other projects related to fisheries management.
- Advance scientifically-based management recommendations.
- Provide information transfer and liaison activities with regional fisheries management entities and other state and federal partners.
- Provide technical support to the Mississippi Advisory Commission on Marine Resources in recommending fishery management plans, regulatory amendments, stock assessments, regulations and technical analysis.
- Provide representatives to serve on fisheries-related boards, committees, task forces and panels, as are required.

## ACCOMPLISHMENTS:

- Published public notices for opening and closing of the commercial seasons for shrimp, oysters, Spotted Seatrout, Flounder, Red Snapper, Grouper, Red Drum and large coastal sharks.
- Served on regional management committees of the Gulf States Marine Fisheries Commission (GSMFC), including Artificial Reef Task Force, Menhaden Advisory Committee, White Trout Fishery Task Force, Blue Crab Task Force, Fisheries Information Network Committee, Data Management and Recreational Fishery Subcommittees, Technical Coordinating Committee, Gulf and South Atlantic Resource Partnership and the State/Federal Fisheries Management Board. Marine Fisheries personnel also served on the Gulf of Mexico Fishery Management Council, as well as their Red Drum and shrimp committees.
- Enhanced on-going monitoring in response to the historic twice opening in one year (2019) of the Bonnet Carré Spillway, including collection of additional hydrological data, water samples for toxin analysis, seafood tissue samples and decreased landings observations. Lead to detailed report to NOAA resulting in over \$21 million 2019 Bonnet Carré Emergency Disaster Recovery funds for Mississippi.
- Developed NOAA-approved CARES Act Section 12005 spend plan to assist in the recovery efforts of Mississippi's seafood-related businesses, such as commercial fishing, processing, marine aquaculture and charter for-hire.
- Enhanced monitoring in response to the historic twice opening in one year of the Bonnet Carré Spillway, including collection of additional hydrological data, water samples for toxin analysis, seafood tissue samples and decreased landings observations.

## ARTIFICIAL REEF

Director: Travis Williams



The Artificial Reef Bureau is responsible for artificial reef development in Mississippi's marine waters and adjacent federal waters. Reef sites that are properly located, constructed and managed can enhance the marine habitat for associated important sport fishes and other organisms. Currently there are 67 inshore reefs, 15 offshore reefs encompassing 16,000 acres of water bottom and eight rigs-to-reef sites that enhance and support important marine species. Reefs are built with concrete rubble, steel-hull vessels (including barges), crushed limestone, Florida Limestone Pyramids and Reef Balls. They can range in size from eight - 10,000 acres.

### GOALS:

- Develop and enhance nearshore and offshore reef habitats in accordance with Mississippi's Artificial Reef Plan.
- Provide the MDMR web administrator with updated coordinates of reef material, reef orientation, maps and charts so the website can be updated and maintained for the fishing community to access.
- Within the framework of Mississippi's Artificial Reef Plan, identify areas conducive to artificial reef development and enhancement - both nearshore and offshore.
- Monitor artificial reef development in Mississippi's marine waters and adjacent federal waters.
- Pursue federal permits for two offshore artificial reefs.

### ACCOMPLISHMENTS:

#### CAPTURED, TAGGED AND RELEASED

38

Red Snapper

1

Gag Grouper



33 LIONFISH

removed from the reefs  
during the second annual

JIMMY SANDERS MEMORIAL  
LIONFISH CHALLENGE



#### ACQUIRED HABITAT FOR FUTURE DEPLOYMENT

98

loads

2,116

pieces

3

companies



## FINFISH BUREAU

*Director: Matt Hill*



The Finfish Bureau monitors finfish populations in state waters and adjacent federal waters and provides scientific information, including biological life history and catch statistics, for commercial and recreational finfish for effective management and the Tails N' Scales electronic reporting system.

### GOALS:

- Monitor finfish populations through two independent sampling methods: Inter-jurisdictional and Fisheries Assessment and Monitoring (IJ-FAM).
- Develop and coordinate, with other state and federal agencies, independent projects on ecological requirements and biological life history information on recreationally and ecologically important finfish species. These projects include Sport Fish studies and Sport Fish tag and release in conjunction with the Gulf Coast Research Laboratory (GCRL).
- Conserve and revitalize marine finfish and supporting habitats within optimal levels using relevant social, economic and biological factors.
- Provide scientific information, including biological life history and catch statistics, for commercial and recreational finfish for effective management.

### ACCOMPLISHMENTS:

- Provided management information through an ongoing commercial fisheries statistics program. Data is collected monthly from dealers' reported catch.
- Collected catch and effort information on the recreational sector in cooperation with the GSMFC through monthly MRIP surveys.
- Continued collecting data on Red Snapper harvest and angler effort for the 2020 Red Snapper season under the recently passed Amendment 50, which allowed each gulf state to manage their own allocation of Red Snapper.
- Collected fishery independent data on finfish populations through a combination of gill net and trawl samples in Mississippi's major estuaries and bays.
- Developed several projects in cooperation with University of Southern Mississippi Gulf Coast Research Laboratory (GCRL) to obtain information on life history parameters and essential fish habitat of recreational important finfish.
- Worked on a multi-year grant through NFWF to assess reef fish species in conjunction with GCRL.
- Partnered with GCRL for a Sport Fish Studies program in Mississippi coastal waters. Monitored Spotted Seatrout, Red Drum and shark species.
- Partnered with GCRL for a Sport Fish Tag and Release program for Cobia, Tripletail, Red Drum and Spotted Seatrout.



## FISHERY SAMPLING: DEPENDENT

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### TRIP TICKET GOALS:

- Collect commercial fisheries landings and catch data for Mississippi in a timely manner.
- Continue the trip-ticket program for all fisheries in which dealers and/or fishermen submit paper or electronic trip tickets on a monthly basis. Data are then scanned into a database and transferred to the GSMFC Finfish Information Network.
- Implement a trip-ticket program for all fisheries.

### ACCOMPLISHMENTS:

- Collected, processed and submitted fisheries landings data to the National Marine Fisheries Service (NMFS) in accordance with established data handling procedures. Fisheries landings data are an important part of the management process, both as an indicator of potential population changes and as a gauge of success of existing fisheries regulations and practices.
- Collected biological data for selected commercially important finfish species from the major seafood dealers along the Mississippi Gulf Coast. The information is used in the development of various fishery management plans at the state and regional levels.
- Collected information on select pelagic and reef fish species. This information is submitted to NMFS for inclusion in its Trip Information System. Both state and federal fisheries managers use this data to properly manage these valuable resources.

### MARINE RECREATIONAL INFORMATION PROGRAM GOALS:

- Conduct MRIP surveys in Mississippi for shore, charter and private fishing modes
- Provide a timely and reliable database on marine recreational fishing activity.
- Identify notable changes in recreational catch and effort trends.
- Collect biological information on selected recreational important finfish species.
- Evaluate the long-term implications of management measures.

### ACCOMPLISHMENTS:

- Collected recreational fisheries information daily through surveying more than 2,400 recreational fishermen. The information gathered from the survey provides a continuous standardized database of marine recreational catch, effort and participation.
- Conducted weekly telephone interviews of charter boat operators in Mississippi to obtain more precise fishing effort estimates for the for-hire sector.

# TAILS N' SCALES

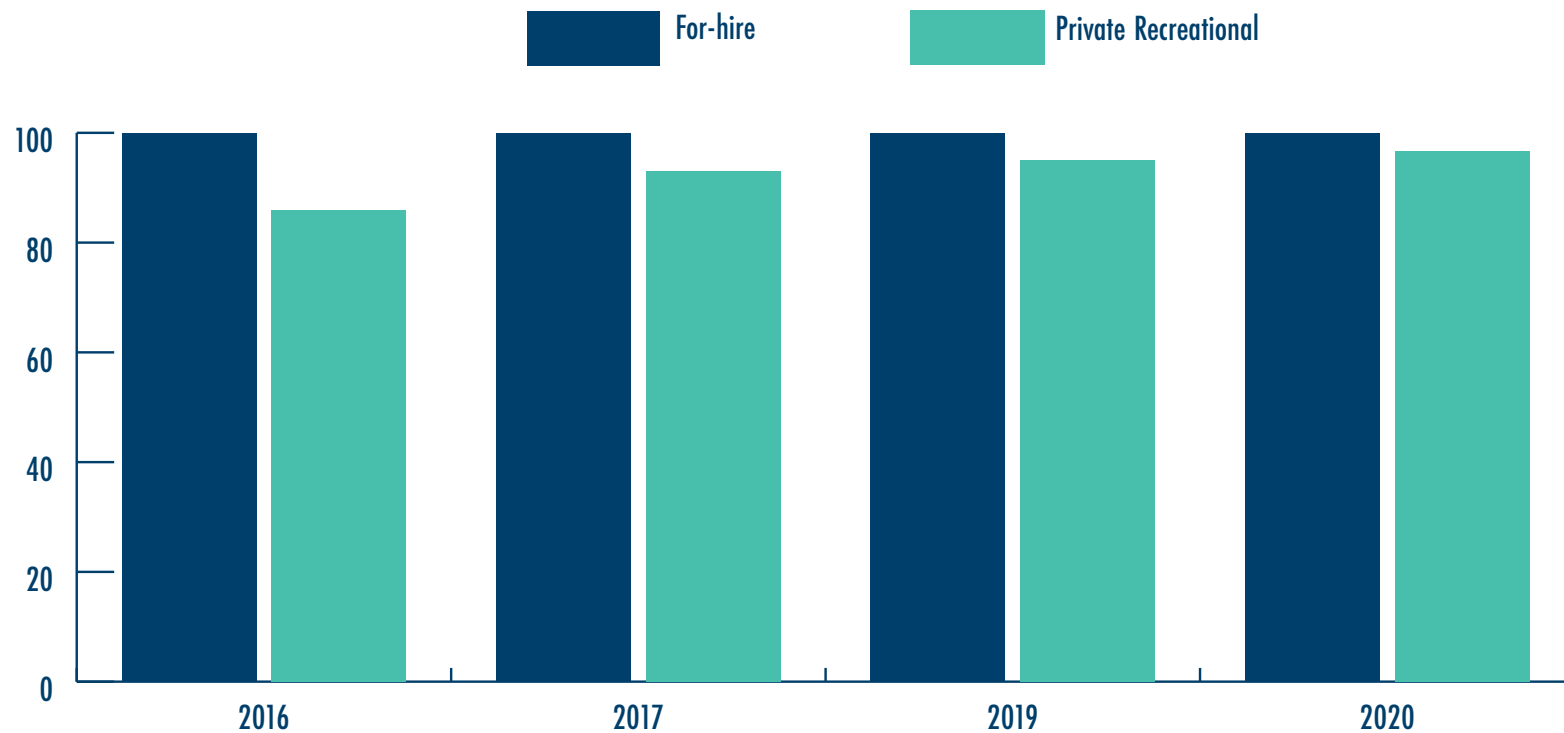
## GOALS:

- Continue to collect recreational Red Snapper harvest and effort data through MDMR's electronic application.
- Continue to improve functionality and ease-of-use for angler reporting along with adding new features to capture data on Red Snapper discards.

## ACCOMPLISHMENTS:

- Tails n' Scales completed the certification process and became the second program to have its survey design accepted by NOAA Fisheries following Louisiana. The reporting system was officially certified by NOAA in June of 2018.
- The 2020 Red Snapper season was managed under the recently passed Amendment 50, which allows each gulf state to manage their own application of Red Snapper. The 2020 season lasted 45 days total for the recreational sector and approximately 94% of Mississippi's Annual Catch Limit (ACL) was harvested.
- Current trip compliance rates for the private recreational and for-hire sectors are 95 percent and 100 percent, respectively. Observed increases in compliance in the private recreational and charter for-hire sectors illustrates the increasing success of the program, along with the precision of harvest estimates.

### – TAILS N' SCALES REPORTING COMPLIANCE –





## FISHERY SAMPLING: INDEPENDENT

### INTERJURISDICTIONAL FISHERIES ASSESSMENT AND MONITORING GOALS:

- Monitor finfish populations through fishery-independent sampling methods.
- Collect data to maintain a consistent database for the monitoring of the relative abundance and size distribution of the finfish populations in coastal Mississippi waters.
- Collect hydrological and climatological data at sampling stations.

### ACCOMPLISHMENTS:

- Each month, eight stations are sampled, including four fixed sites (Pascagoula and Pearl River) and four randomly selected sites within the Grand Bay National Estuarine Research Reserve, Biloxi Back Bay, St. Louis Bay and the Pascagoula River.
- All data collected during these surveys are vital to the management of multiple recreational and commercial important species, as this survey provides estimates of length-at-age, sex ratios and indices of abundance.

## RED DRUM ASSESSMENT

### GOALS:

- Target and obtain data on Red Drum between three and five years old to develop an accurate escapement rate as well as an age/length key.
- Collect supplementary samples of Red Drum from the for-hire charter industry and cooperating recreational fishermen.
- Design and implement an acoustic telemetry project to track the movements of Red Drum in the Biloxi Bay area.

### ACCOMPLISHMENTS:

- Collecting supplementary samples helps fisheries scientists better understand length-at-age and age-at-maturity of Red Drum.
- Expanded the acoustic telemetry array out of Biloxi Bay west to Broadwater Marina and east to Graveline Bayou. The acoustic array consists of 30 acoustic receivers within the project area. The acoustic receivers continue to detect tagged Red Drum that are within the detection range. To date, 82 Red Drum have been tagged with acoustic transmitters.

**CURRENTLY 81 RED DRUM HAVE BEEN TAGGED WITH BLUE EXTERNAL DART TAGS AND INTERNAL ACOUSTIC TRANSMITTERS.**  
The Finfish Bureau continued tagging Red Drum through April 2019.



# SALTWATER STATE RECORDS



JULY 2019

## GRAY SNAPPER

11 lbs., 15.2 oz.  
Hudson Havard  
(youth)



AUGUST 2019

## ATLANTIC TARPON

185 pounds, 8.8 ounces  
Don Ruiz  
(conventional tackle)



AUGUST 2019

## PERMIT

9 pounds, 15.62 ounces  
Sean Cook  
(all tackle-spear)



AUGUST 2019

## LADYFISH

1 lb., 14.58 oz.  
Rodie Armes  
(youth)



AUGUST 2019

## CREVALLE JACK

25 lbs. 6.4 oz.  
Rodie Armes  
(youth)



SEPTEMBER 2019

## BONNETHEAD

15 lbs. 2.4 oz.  
Tucker House  
(conventional tackle)



SEPTEMBER 2019

## RED LIONFISH

1 lb. 13.44 oz.  
Sean Cook  
(all tackle-spear)



OCTOBER 2019

## ATLANTIC BUMPER

0 lbs. 4.52 oz.  
Rinlee Armes  
(youth)



OCTOBER 2019

## HARDHEAD CATFISH

2 lbs. 10.16 oz.  
David Kuehn III  
(youth)



JANUARY 2020

## KNOBBED PORGY

1 lb. 4.8 oz.  
Blake Bosarge  
(youth)



JANUARY 2020

**SPANISH FLAG**

0 lbs. 10.98 oz.  
Blake Bosarge  
(youth)



JANUARY 2020

**VERMILION SNAPPER**

2 lbs. 9.0 oz.  
Blake Bosarge  
(youth)



APRIL 2020

**RED HIND**

4.0 lbs. 7.36 oz.  
Harley Havard  
(all tackle-spear)



APRIL 2020

**YELLOWFIN TUNA**

236 lbs. 9.6 oz.  
Michael McElroy III  
(conventional tackle)



MAY 2020

**OCEAN TRIGGERFISH**

5 lbs. 9.6 oz.  
Harley J. Havard  
(all tackle-spear)



MAY 2020

**SPANISH HOGFISH**

1 lbs. 14.08 oz.  
Harley J. Havard  
(all tackle-spear)



MAY 2020

**AFRICAN POMPAÑO**

37 lbs. 1.44 oz.  
Harley J. Havard  
(all tackle-spear)



MAY 2020

**HIGHFIN GOBY**

0 lbs. .78 oz.  
Abigail Daniels  
(all tackle-cast net)



JUNE 2020

**SPOTTED SEATROUT**

5 lbs. 5.6 oz.  
Maddox McDaniel  
(youth)



JUNE 2020

**LADYFISH**

5 lbs. 6.06 oz.  
Doug Borries  
(conventional tackle)



# SEAFOOD TECHNOLOGY BUREAU

Director: Jeff Davis



The Seafood Technology Bureau is the regulatory authority for Mississippi's seafood industry and ensures that commercial seafood is processed and prepared safely for the consumer market.

## GOALS:

- Conduct regulatory inspections of shellfish processing and transporting facilities to determine compliance with state and federal sanitation and health safety regulations.
- Ensure that suitable sanitary conditions exist for processing and distributing seafood in Mississippi.
- Assist the seafood industry in compliance with sanitation rules and regulations and provide technical assistance to the Mississippi seafood industry.
- Provide technical advice to the Mississippi seafood processing industry to aid in compliance with seafood sanitation and health safety regulations.
- Provide technical advice to the seafood processing industry regarding new technologies and new products that provide added value, new markets, employment opportunities and economic enhancement for the seafood industry.
- Provide technical advice to those interested in aquaculture and aid in expanding economic and employment opportunities.
- Provide assistance to regulatory agencies with investigating reported food-borne illness cases, and certify product recalls and embargoes according to state and federal instituted protocols and procedures
- Disseminate information and educate consumers and food handlers in the seafood industry.
- Provide advice and technical support for the Mississippi Department of Agriculture and Commerce regarding aquaculture regulatory matters.



▲ Bureau Director Jeff Davis inspects one of the shrimp processing facilities in Biloxi, Mississippi.



▲ Marine Fisheries Technician Mai Dang collects water samples from a shrimp processing plant.



▲ Ruth Posadas retired with 19 years of dedicated service to the people of the State of Mississippi. Her leadership and selfless work ethic was instrumental in equipping our staff for future success.

## ACCOMPLISHMENTS:

- Seafood Officers conducted four training workshops on seafood safety including: Basic Seafood Hazard Analysis & Critical Control Point (HACCP) and Sanitation Control Procedures (SCP) with a total of 45 students.
- Staff responded to 2,727 technical assistance requests from the public, seafood industry and other state and federal agencies.
- Bureau Director Jeff Davis completed his Certificate of Supervisory Management through the Mississippi State Personnel Board.
- Seafood Officer Jessica Rankin completed her Certificate of Public Management through the Mississippi State Personnel Board.

### – 10-YEAR DATA RESEARCH PROJECT RESULTS – *Certified processors in the seafood industry in Mississippi*



### – 65 TOTAL SEAFOOD SANITATION/ PROCESSING CERTIFICATES – *These 65 permits represent 2,106 inspected seafood units.*



## SHELLFISH BUREAU

Director: Erik Broussard

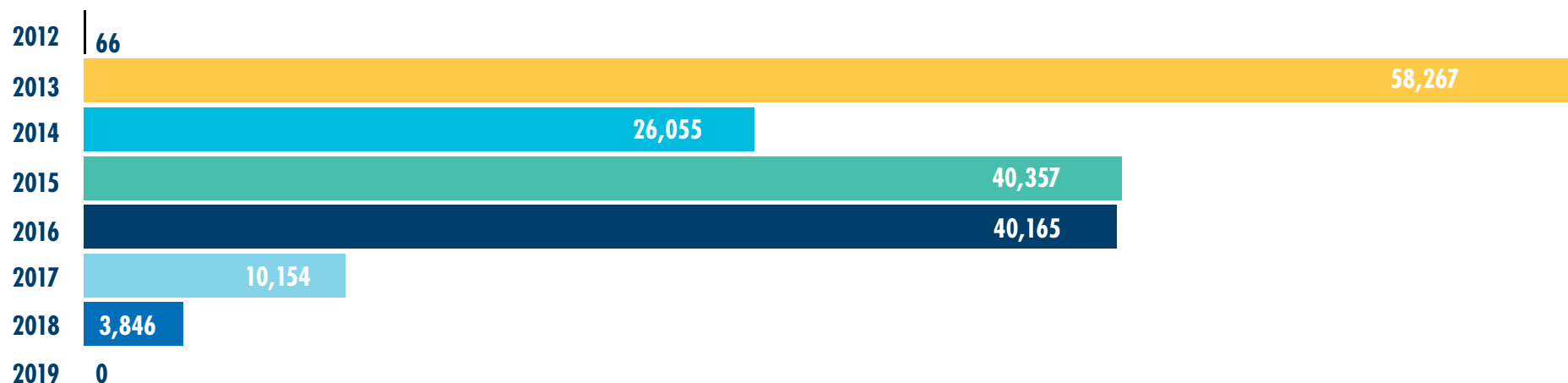


The Shellfish Bureau manages and enhances Mississippi's marine shellfish resources. This bureau also maintains compliance with the Interstate Shellfish Sanitation Conference's National Shellfish Sanitation Program (ISSC/NSSP) Model Ordinance requirements for shellfish-growing waters.

### GOALS:

- Maintain program compliance with the NSSP to allow the safe harvest of oysters from Mississippi waters.
- Map and survey public oyster reefs for potential cultivation and cultch planting sites.
- Collect water samples in all oyster reef areas and analyze them for fecal coliform content.
- Classify oyster-growing areas using data collected from water samples.
- Use state resources to cultivate oyster reefs as needed.
- Deploy cultch materials to restore public oyster reefs.
- Deposit oyster cultch material.
- Complete annual assessment of health and status of public oyster reefs.
- Work with other agencies to improve water quality.
- Educate oyster harvesters and the public on shellfish issues, oyster handling and regulations involving harvesting practices.

### – MISSISSIPPI OYSTER LANDING (SACKS) –



## ACCOMPLISHMENTS:

- From July 1, 2019, to June 30, 2020, staff collected 1,123 fecal coliform samples along the Mississippi Coast.
- From July 2019 to September 2020, staff trained 51 oyster harvesters as part of the Oyster Harvester Education Program. In June of 2020, this class was offered virtually using the Microsoft Teams program.
- 7,692 cubic yards of oyster shell cultch was deployed on Biloxi Bay Reef and Henderson Point Reef.
- From February 27, 2019, to September 3, 2019, staff collected 174 dredge samples for analysis of Mississippi oyster reef health.
- Over 200 square meter dives were conducted for the 2020 oyster reef assessment.
- The Shellfish Bureau purchased and deployed 1 million market size oysters for brood stock enhancement.
- A harmful algal bloom (HAB) of *Microcystis spp.*, a freshwater cyanobacteria, persisted along the Mississippi Gulf Coast from June to September 2019. Staff collected and analyzed 1,333 water samples to monitor HAB activity. MDMR had toxin analysis conducted on 92 seafood tissue samples and 77 water samples.
- Shellfish staff completed a 180-page report titled, "Comprehensive Sanitary Survey of the MS Sound." A sanitary survey is a comprehensive written evaluation of all environmental factors and pollution sources which have a bearing on the water quality in a shellfish growing area.
- Staff completed a second edition of the publication titled, "Oystermen's Guide to Mississippi Gulf Coast Oyster Reefs." This project was funded by a Tidelands grant.



▲ Katherine Glover, marine scientist for the Shellfish Bureau, collects wind speed during routine, monthly, water quality sampling.

▲ Cultch material being deployed on an oyster reef in the Mississippi Sound.



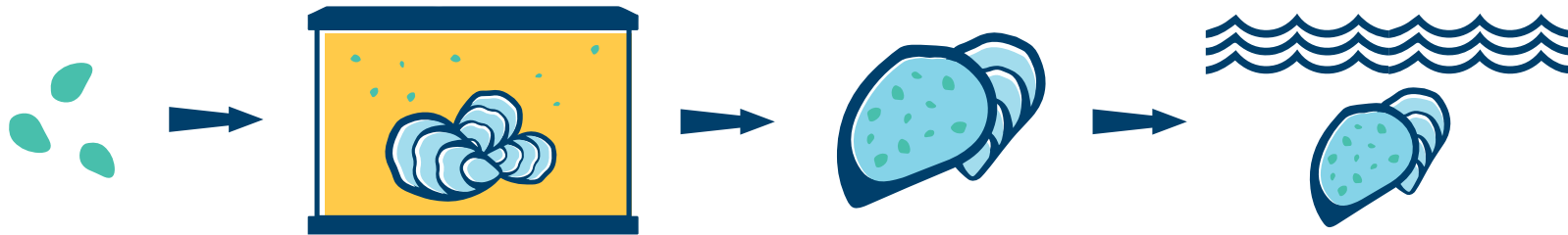
# OYSTER AQUACULTURE

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The oyster industry is an integral part of the Mississippi Gulf Coast – its economy, its history and its culture. It has suffered greatly because of several natural and man-made disasters since 2005, including Hurricane Katrina, the BP Oil spill and three separate openings of the Bonnet Carré Spillway (2008, 2011 and 2016). In 2004, oyster fishermen in Mississippi harvested nearly 500,000 sacks of oysters. In 2012, there were 66 sacks harvested, and in 2016, about 40,000 sacks were harvested. Gov. Phil Bryant created the Governor’s Oyster Council on Restoration and Resiliency in 2015 to address the problems this industry faces and to come up with solutions. These solutions include a remote-setting facility at the Port of Gulfport and oyster aquaculture training programs.

## PORT OF GULFPORT REMOTE SETTING FACILITY

Remote setting is a method of producing oysters that differs from natural oyster production. It is the production of oyster spat by setting hatchery-reared larvae onto cultch (hard material for oyster larvae to attach, typically shell, crushed concrete or limestone) at a remote location from the hatchery. Spat are then planted on-bottom or off-bottom.



## GOALS:

- Assist in increasing the production of the natural oyster reefs along the Mississippi Gulf Coast.
- Continue to test and experiment various methods to determine the feasibility of building a large scale remote setting facility.

## ACCOMPLISHMENTS:

- During FY19, MDMR set oysters in four 2,600-gallon tanks at the Port of Gulfport. During its third year of operation, MDMR worked with the University of Southern Mississippi to set oysters from their high-density production system.



## OFF-BOTTOM OYSTER AQUACULTURE TRAINING PROGRAM

The oyster industry along the Mississippi Sound currently is limited to harvestable reefs; however, the number of oysters available for harvest has decreased in the past decade, which has limited the number of oystermen and fishermen engaged in this economic sector.

**MDMR WAS AWARDED A RESTORE ACT GRANT FOR THE DEVELOPMENT OF AN OFF-BOTTOM OYSTER AQUACULTURE TRAINING PROGRAM. THE PROGRAM IS SET UP IN TWO PHASES THAT OCCUR OVER A TWO-YEAR PERIOD.**

<b>PHASE 1</b>	Includes classroom and field education on aquaculture, business operations and demonstrations of off-bottom aquaculture techniques. Participants attend training meetings, workshops, received assistance with development of a business plan, deployed grow-out systems at training site(s) and stocked those systems with seed.
<b>PHASE 2</b>	Incorporates hands-on training by allowing participants to select an oyster-growing technique from the range of permitted methods using information gained from phase one. Participants maintain their assigned gear and oyster seed, including all aspects of fouling control, grading, splitting and site maintenance following best management practices. Instructors and participants will periodically evaluate oyster survival, growth and quality, as well as comparing individual success among program participants to facilitate collaborative learning.

*If all requirements are completed, the participants will be eligible to sublease two acres from the MDMR to begin their own off-bottom oyster aquaculture business.*

## GOALS:

- Diversify the oyster industry by training oystermen and fishermen in off-bottom aquaculture to support and grow the oyster industry and the overall Mississippi economy.
- MDMR expects the program to create 30 new jobs in the off-bottom field after completing the second year.

## ACCOMPLISHMENTS:

- MDMR trained coastal residents in the techniques of off-bottom oyster aquaculture. The training program addressed all aspects of off-bottom oyster farming appropriate to the local/regional area with the capability of training and accrediting up to 20 participants per year.
- The program included classroom and field education on aquaculture, business operations and demonstrations of off-bottom aquaculture techniques.
- Second year participants completed all required tasks, leased a total of 37 acres in the MDMR Commercial Aquaculture Park and started private businesses to begin selling off-bottom oysters.
- A total of 331,977 oysters have been harvested to date.
- MDMR began training the third Off-Bottom Oyster Aquaculture class on June 27 which has 20 participants enrolled.
- MDMR submitted a 245-acre Deer Island expansion permit to allow for additional private leases because of the interest and growth in the program.

## SHRIMP AND CRAB BUREAU

*Director: Jason Saucier*



The Shrimp and Crab bureau conserves and revitalizes Mississippi's shrimp and crab resource and supports habitat to ensure balanced and sustained use. It maintains stewardship of living marine resources for commercial and recreational fisheries at optimal levels as modified by social, economic and biological factors.

### GOALS:

- Manage the state's commercial and recreational shrimp and crab fisheries and work with other state agencies, as well as regional and federal fishery management authorities.
- Monitor and assess the shrimp and crab fisheries; coordinate the Mississippi Crab Task Force; issue Scientific Research and other Special Permits; inspect and report on the live-bait shrimp industry; coordinate grants with the U.S. Fish and Wildlife Service (USFWS), the Interjurisdictional Fisheries Monitoring Program, the Derelict Crab Trap Removal Program and the Mississippi Bonnet Carré Fisheries Disaster Recovery Program for the Oyster and Blue Crab Fisheries from NOAA Fisheries.
- Set the seasons, gear regulations and implementation of other related management measures as required.
- Work cooperatively with federal agencies, including NMFS, USFWS, GSMFC, Gulf of Mexico Fisheries Management Council and the U.S. Geological Survey. Cooperating state agencies include GCRL, MDEQ, MDWFP and the Mississippi State University Coastal Research and Extension Center, as well as neighboring state marine resource management agencies and the Institute for Marine Mammal Studies.

### ACCOMPLISHMENTS:

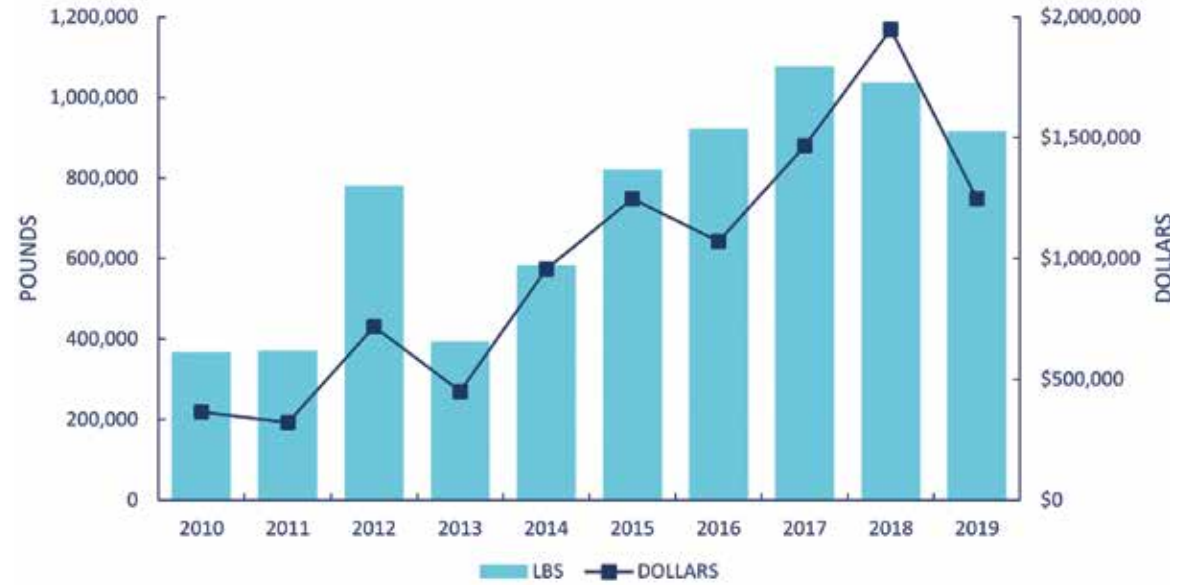
- Collected 489 trawl samples as part of the fishery independent shrimp monitoring, interjurisdictional fisheries monitoring program, and Bonnet Carré Spillway 2019 opening monitoring juvenile finfish and invertebrate trawl sampling program.
- Operated the Real-Time Hydrological Monitoring program at 11 stations in Mississippi waters and adjacent tributaries. The data is updated in 15-minute intervals and is available to the public and resource managers at [dmr.ms.gov](http://dmr.ms.gov).
- Coordinated the USFWS Sport Fish Restoration Grants. Current projects include Mississippi Artificial Reef Program, Mississippi Coastal Sport Fish Studies, Sport Fish Tag and Release in Mississippi Coastal Waters and Adjacent Gulf of Mexico, Assessment of Migratory Behavior and Habitat Utilization of Sport Fish in Mississippi Coastal Waters and the Gulf of Mexico and Assessment of Red Drum Stock in Mississippi Coastal Waters.
- Continued the Mississippi Crab Task Force to encourage the various marine resource user groups to provide input and voice concerns on fishery management and research activities. The task force has worked in the ongoing efforts and coordination of the Derelict Crab Trap Removal Program, the recommendation of regulatory actions and the fisheries monitoring programs.
- Collected and processed commercially harvested shrimp samples in collaboration with other Gulf States to validate commercial shrimp conversion factors.



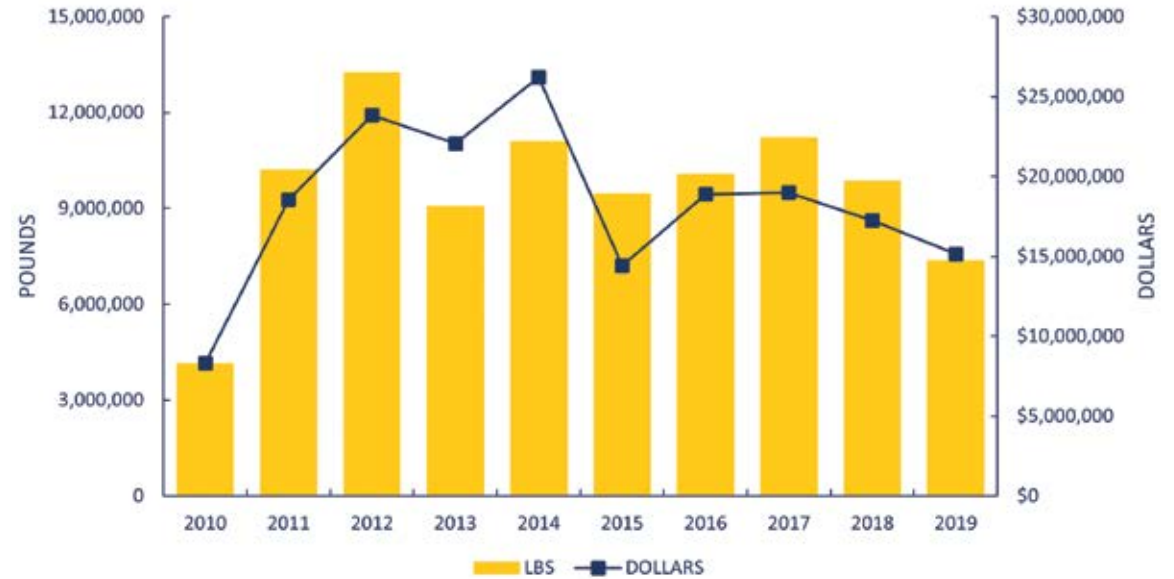
Conducted **36 CRAB TRAP SURVEYS** consisting of **216 INDIVIDUAL TRAPS**  
— in St. Louis Bay, Back Bay of Biloxi and the lower Pascagoula River to collect pertinent —  
catch-per-unit-effort (CPUE), sex, maturity and bycatch data on the recreational blue crab fishery



### - MS BLUE CRAB LANDINGS -



### - HEAD ON ALL SHRIMP SPECIES LANDINGS -







# COASTAL RESTORATION & RESILIENCY

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The Office of Coastal Restoration and Resiliency was established by the Mississippi Legislature in 2014. Its primary purpose is to develop a long-range, multi-state strategy to restore Mississippi coastal resources and to provide for healthy and resilient communities and economies in the coastal area.

It is comprised of the following programs:

- Mississippi Gulf Coast National Heritage Area
- Restoration Coordination Team
- Coast-wide Restoration Planning
- Boating Infrastructure
- Clean Vessel Act
- Boat Access
- Gulf of Mexico Alliance

The office also collaborates with other agencies in Alabama and Louisiana, as well as federal agencies and non-governmental organizations. These partnerships work to assist with the planning, permitting and implementation of major coastal restoration projects focused on habitat, fisheries and structural or physically protective resiliency projects.



**Rhonda Price**  
*Director*



## GOALS:

- Build capacity of state and local governments to better manage and protect coastal communities and marine resources for Mississippi.
- Promote the understanding of coastal risks and the availability of resiliency and restoration tools that support local, regional, national and international efforts related to protecting and/or improving cultural, natural and water resources along with the economic health within the Gulf of Mexico.
- Promote the acquisition, adaptation, use of habitat assessment data, mitigation and restoration as strategies to preserve heritage, conserve natural resources and support economic viability of the coast.
- Improve public familiarity with cultural and habitat resources, such as living shorelines in coastal communities, better communication about habitat restoration, water quality and storm-water management.
- Continue the development of Coast-wide Restoration Planning by gathering data, maximizing resources and pursuing funding and partnership opportunities.
- Continue to build relationships with the U.S. Army Corps of Engineers, Mobile District and their MS Coastal Improvements Program Barrier Island Project in the development of long-term maintenance and new restoration options for Mississippi's primary barrier system. Assessment, management and restoration of this barrier are key to us reaching our goals for long-term fisheries resources and resiliency.

## ACCOMPLISHMENTS:

- Now more than two and one-half years after initial construction ceased, terrestrial and marine habitats at Round Island continue to flourish. Marsh plantings from the last year have merged seamlessly with infilling volunteer plants to create increasingly natural-looking landscapes as seen in these photographs taken from an MDMR unmanned aerial vehicle during a 2019 Chevron Pascagoula Exercise.
- New partnering opportunities with the United States Geologic Survey aimed at expanding state and federal data capacity in the Mississippi Sound and adjoining waters helped assess potential effects of Bonnet Carré Spillway openings, harmful algal blooms and other human caused or natural factors affecting our water quality and resources.





## COAST-WIDE RESTORATION PLANNING

This ongoing process seeks to better define the functional limits of our coastal estuary system and evaluate its health and productivity into the future. It broadens the focus beyond the Mississippi Sound to what is now defined as the Louisiana, Mississippi, Alabama Coastal System (LMACS). Objectives supported by the LMACS include the development of data and modeling to thoroughly assess the system and evaluate restoration concepts and strategies. The LMACS will give Mississippi leverage to maximum benefits from collaborative restoration actions with adjoining states.

## RESTORATION COORDINATION TEAM

This team consists of MDMR and MDEQ employees who coordinate the implementation of restoration projects with funds from the BP oil disaster. Revenue streams include RESTORE, Natural Resource Damage Assessment and National Fish and Wildlife Foundation.

## BOAT ACCESS PROGRAM

This program provides funds to coastal entities for the installation and renovation of boat ramps and kayak launches.

## ACCOMPLISHMENTS:

- Received a \$254,000 grant to improve and renovate the transient boat docks at the Bayou Talla Boat Ramp in Hancock County.



## BOATING INFRASTRUCTURE GRANT PROGRAM

This program provides funding for the construction, renovation and maintenance of public and private boating infrastructure, such as piers and boat docks. This innovative campaign provides transient boaters with unique access to Mississippi waterways.

### ACCOMPLISHMENTS:

- Received a \$200,000 grant to renovate the transient dock at the Bay St. Louis Marina.

## CLEAN VESSEL ACT

The Act provides funds throughout the state to harbors and marinas to install pump-out stations at their facilities.

### ACCOMPLISHMENTS:

- Completed the installation of one pump-out station.

## GULF OF MEXICO ALLIANCE

This is a partnership of the five Gulf States, formed with the goal of significantly increasing regional collaboration to enhance the ecological and economic health of the Gulf of Mexico. The Alliance identified the following initial priority issues: water quality; wetlands and coastal conservation and restoration; environmental education, identification and characterization of Gulf habitats; reducing nutrient inputs to coastal ecosystems and coastal community resiliency.

### ACCOMPLISHMENTS:

serving on the planning committee for  
**EMBRACE THE GULF  
2020 CAMPAIGN**



**MS HOMEOWNER'S HANDBOOK**  
— updated and reprinted for \$50,000 —

funded one  
**GULF STAR  
PROJECT**   
region-wide for a total of

**\$60k**

# MISSISSIPPI GULF COAST NATIONAL HERITAGE AREA

The Mississippi Gulf Coast National Heritage Area Program (MGCNHA) is funded by the National Park Service and the State of Mississippi. It supports economic growth in the state's lower six counties by focusing on the natural, cultural and historical resources in the Mississippi Heritage Area.

## GOALS:

- Promote the area's recreational and historical resources through activities and partnerships that celebrate the area's unique history, people, traditions and landscapes.
- Produce and distribute a quarterly newsletter and educational materials highlighting heritage-related events and projects.
- Promote Gulf Coast Outpost, a voluntary program that recognizes nature-based tourism businesses and gives them access to a business resource toolkit.
- Continue support of Whole Places, a fourth- and fifth-grade education curriculum centered around cultural and natural resource destinations.
- Continue managing the Charnley-Norwood House in Ocean Springs, a Louis Sullivan and Frank Lloyd Wright design.
- Complete 16 Heritage Community/ Partnership grant projects totaling \$175,000
- Implement the Nature-Based Tourism Management Plan for Coastal Mississippi and submitted a proposal for implementation through MDEQ.

## ACCOMPLISHMENTS:

- Established 16 Interstate wayfinding signs within the Gulf Coast's Heritage Area.
- Certified nine nature-based businesses into the Gulf Coast Outpost program.
- Implemented the Blueways Design Guide to educate and encourage visitors and local residents to explore MGCNHA's 12 designated blueways.
- Partnered with Jackson County in the hiring of a Nature Base Tourism Coordinator.
- Hosted five meetings at CNH for various agencies of community partners.









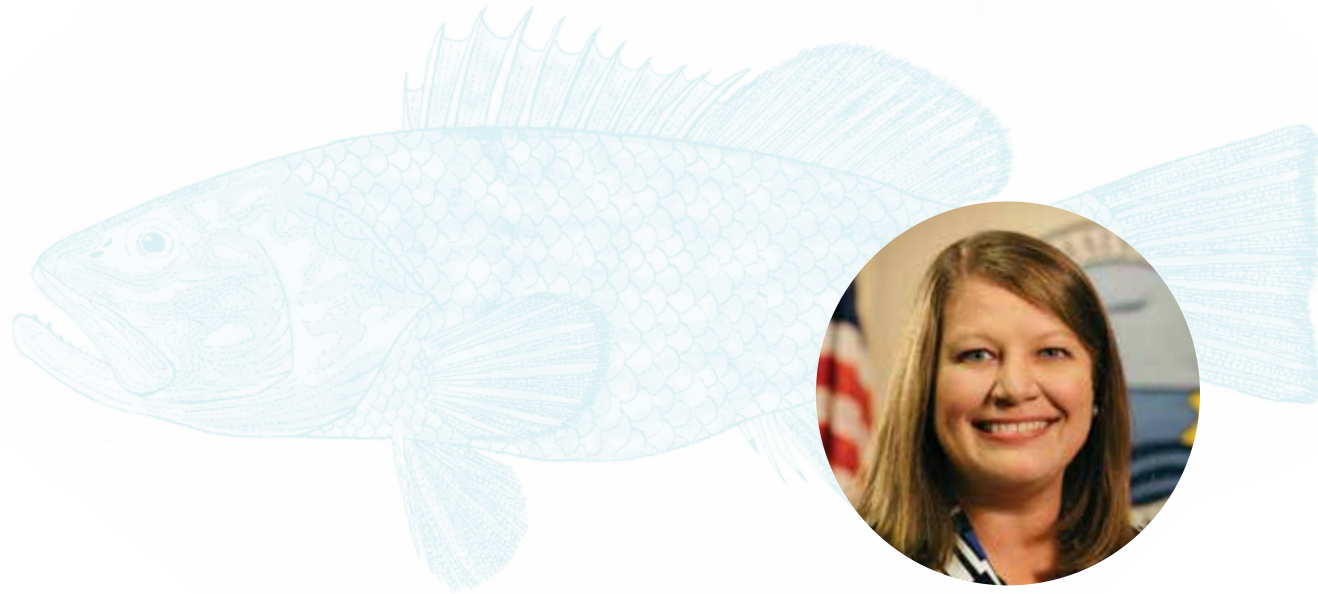
# COASTAL RESOURCES MANAGEMENT

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The Office of Coastal Resources Management (CRM) is responsible for implementing the Mississippi Coastal Program, which was mandated by the Legislature in Section 57-15-6 of the Mississippi Code of 1972 and approved by NOAA.

CRM also administers these programs:

- Coastal Preserves
- Wetlands Permitting
- Invasive Species
- Beneficial Use



**Jennifer Wittmann**  
*Director*



## GOALS:

- Administer the regulatory program under the Coastal Wetlands Protection Act.
- Review proposed projects for Coastal Zone Consistency determinations in accordance with the Coastal Zone Management Act.
- Acquire, protect and manage Mississippi's remaining coastal wetlands ecosystems.
- Partner with the Secretary of State's Office to manage Coastal Preserves.

## ACCOMPLISHMENTS:

- Developed a mapping portal to organize and display GIS layers from many different sources. Office staff and permit applicants can use this portal to view and interact with relevant spatial data.
- Staff participated in planning with MDEQ, other agencies and partners on potential projects funded through the RESTORE Act, the National Fish and Wildlife Foundation – Gulf Environmental Benefit Fund and the Natural Resource Damage Assessment to restore and protect our coastal environment.
- Partnered with USDA-APHIS to control feral hog populations on Coastal Preserves and with USDA Forest Service to produce local genotype slash pine seedlings for planting on Deer Island.
- Staff continues to conduct pre-application permit meetings. These meetings help applicants understand the federal and state regulations and contributes to a smoother, less time-consuming evaluation and permit process.

## WETLANDS PERMITTING BUREAU

Director: Willa Brantley



The Wetlands Permitting Bureau administers the regulatory program under the Coastal Wetlands Protection Act (CWPA) and reviews proposed projects for Coastal Zone Consistency determinations under NOAA Federal Consistency guidelines in accordance with the Coastal Zone Management Act (CZMA).

### GOALS:

- Assist the public with obtaining permits under the CWPA and CZMA through pre-application meetings and application assistance.
- Evaluate applications for proposed coastal wetlands impacts in accordance with the CWPA and the Mississippi Coastal Program, approve consistent projects within a timely manner and make recommendations to the Executive Director and the Mississippi Advisory Commission on Marine Resources, as needed.
- Verify compliance of permitted activities and investigate potential wetlands violations, as well as recommend mitigation to compensate for wetlands loss.
- Implement an electronic application and workflow management system to improve data accuracy and reporting, better track secondary and cumulative impacts and hopefully shorten application processing times.

### ACCOMPLISHMENTS:

- The new electronic workflow management system was implemented in June 2020. Data in the former database has been transferred to the new system and the bureau's work is now both paperless and streamlined to a large extent. The system can compile and report on bureau statistics quicker, easier and at a much more detailed level than the previous database.
- A new program, the Alternative Bulkhead Design (ABD) Program originated through a Tidelands grant that has been awarded for Phase 1 of the program which consists of developing a course to train marine contractors, environmental consultants and other interested parties about living shoreline concepts, including habitat values, project design and promotion and permitting strategies. It is the goal of the program to encourage and support more natural and resilient methods for property protection. The first training course was scheduled to take place in April, but had to be postponed due to the Covid-19 response. The training has been rescheduled for February 2021.
- Received a Wetlands Program Development Grant from the U.S. Environmental Protection Agency to complete Phase 2 of the ABD Program, which will consist of biological monitoring to compare fisheries utilization between natural, armored and alternative shorelines. The monitoring will be carried out by scientists from the University of Southern Mississippi.
- Conducted approximately 35 pre-application meetings with prospective applicants, despite the restrictions required due to the Covid-19 pandemic.

### – COMPLETED 621 ACTIONS –

*including application evaluations, compliance actions and project reviews*

**525** Regulated Activities/Coastal Zone  
Consistency Determinations

**17** Violations

**79** Pre-Project Reviews



## COASTAL PRESERVES BUREAU

*Director: James Davis*



The Coastal Preserves Program (CPP) was developed in 1992 to acquire, protect and manage Mississippi's remaining coastal wetland ecosystems. The state has identified 20 Coastal Preserve sites of important coastal wetland habitat and associated uplands. Acquired lands are managed to safeguard and protect their natural characteristics, ecological integrity, environmental functions and economic and recreational values for the benefit of all Mississippi residents. The Mississippi Secretary of State's Office is an active partner in the program.

### GOALS:

- Acquire land within the state's 20 Coastal Preserve areas.
- Protect sensitive coastal habitats.
- Coordinate biological surveys and assessments and develop individual Coastal Preserve management plans.
- Develop a public outreach and education program to increase public awareness and interest in Mississippi's coastal wetlands.
- Develop partnerships with federal, state and local agencies, and identify approaches to protection and restoration of wetlands along the Mississippi Gulf Coast.



▲ AIS staff conducting herbicide treatment on giant salvinia.



▲ Giant salvinia



## ACCOMPLISHMENTS:

- Aquatic Invasive Species (AIS) staff used boats and airplanes to search over 1,154 river miles for the presence of aquatic invasive species. Ongoing infestations of giant salvinia, common salvinia, water hyacinth and alligatorweed have been successfully managed using an Integrated Pest Management (IPM) approach employing previously-released biocontrol agents in conjunction with regular monitoring and targeted herbicide spot spraying.
- Coastal Preserves began a feral hog removal project under the NFWF Invasive Species Project. This project includes baiting, trapping and removal of feral hogs from Coastal Preserves sites in Jackson and Harrison Counties by a licensed contractor.
- Five staff members completed the Wildland Fire annual refresher, three completed the moderate pack test and two completed the arduous pack test; one staff member completed the Wildland Fire Chainsaw course and seven staff members completed Wilderness and Remote First Aid. Staff participated in four U.S. Fish and Wildlife Service Sandhill Crane Refuge Prescribed Burns.
- A 40-acre growing season burn was conducted at the Ansley Unit of the Hancock County Marsh Coastal Preserve. The prescribed fire helped remove heavy fuel loads from the ground, promote a healthy understory for wildlife habitat, and function as a site prep aid for tree plantings and restoration efforts. The fire will also aid with the removal of invasive species such as Chinese Tallow, as well as increase access to infested areas for additional treatment.
- Fifteen miles of trails on Coastal Preserves properties throughout the three coastal counties were maintained by staff and informational plant markers with full color pictures and three to four facts about each plant.
- Staff cleared loblolly pine from the Wachovia Unit of the Hancock County Marsh Coastal Preserve and the Indian Point Unit of the Pascagoula River Coastal Preserve.
- The Beneficial Use Program entered into a Memorandum of Agreement to place 60,000 cubic yards of material at the Greenwood Island Beneficial Use Site.
- Staff members serve on several interagency committees and boards including the Interagency Review Team for Mitigation Banks, the Restoration Coordination Team for Natural Resource Damage Assessment projects, the Mississippi Cooperative Weed Management Area, the Gulf and South Atlantic Regional Panel on Invasive Species, the Mississippi Department of Environmental Quality Permit Board and the Pascagoula River Basin Alliance.
- Total acreage as of June 30, 2020, is 41,778 acres of state-owned lands managed by the Coastal Preserves Program. Eight acres were added during this reporting period to the Grand Bay Coastal Preserve. In addition to the state-owned lands within the coastal preserve boundaries, the USFWS manages 3,300 acres at the Grand Bay National Wildlife Refuge, and the National Park Service, Gulf Islands National Seashore manages 6,486 acres within Cat, Ship, Horn and Petit Bois islands. Collectively, this includes 51,256 acres (71%) of the 72,000 acres proposed for acquisition in the original 20 coastal preserves.







# GRAND BAY NERR AND AQUACULTURE HATCHERY IN LYMAN

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The Grand Bay National Estuarine Research Reserve (NERR) and the Aquaculture Hatchery in Lyman are programs of the Mississippi Department of Marine Resources. Designated in 1999, the NERR is one of 29 reserves in the National Estuarine Research Reserve System (NERRS), which is a state-federal partnership operated by NOAA's Office for Coastal Management.

With the emergence of various aquaculture techniques, the Aquaculture Hatchery is able to provide economic support to the fishing industry, as well as stock enhancement of wild populations found in our state waters.



**Paul Mickle, Ph.D.**  
*Chief Scientific Officer*

## GRAND BAY NERR

*Director: Ayesha Gray, Ph.D.*



This mission of the Grand Bay NERR is to practice and promote stewardship of coasts and estuaries through innovative research, education and training using a place-based system of protected areas. The NERRS is a national network of estuaries and coastal watershed reserves whose primary goal is to support high-quality scientific studies that contribute to the understanding of these estuaries, then disseminate the information. Data collected are provided to the public and local decision-makers to provide information on which to base management decisions. The research provides the foundation for various educational opportunities for students and the community.

To meet its mission and the objectives, the NERRS established the System-wide Monitoring Program. It helps to track short-term variability and long-term trends in biological and physical parameters in coastal systems to better understand current ecosystem function and changes in those parameters over time in response to anthropogenic and natural events. Our SWMP at Grand Bay includes water quality, weather, nutrients, wet atmospheric deposition of mercury, sediment dynamics, vegetation distribution/biomass and shoreline erosion monitoring. Information from ongoing monitoring aids in decision-making. The NERR is also a resource for outdoor learning, recreation and fishing for the state. The NERR aids MDMR in addressing local issues and aiding in the protection of Mississippi's natural and heritage resources.

### GOALS:

- Serve the community as distinguished center for estuarine research, education and training and sound coastal management.
- Provide scientific understanding and knowledge that answers critical coastal management questions.
- Give local communities opportunities to appreciate and value the significance of coastal ecosystems.
- Train local communities to make science-based coastal management decisions.
- Partner with local, state and federal entities to manage reserve resources and enhance habitat condition and diversity.
- Continue research partnerships with University of Southern Mississippi's Gulf Coast Research Lab, Mississippi State University, Dauphin Island Sea Lab, University of Alabama, University of Southern Illinois, University of Central Florida and U.S. Geological Survey.

**CONTINUED WORK ON A 2-YEAR NATIONAL ACADEMY OF SCIENCES GULF RESEARCH PROGRAM** funded project titled, "Conceptualizing Human Alteration and Natural Growth in Estuaries and Savannas (CHANGES)."





▲ Summer Marine Biology class from Dauphin Island Sea Lab



▲ Prescribed burn

## ACCOMPLISHMENTS:

- Staff reached 1,110 people through public presentations and 1,900 K-12 students.
- Continued our partnership with Mississippi Department of Environmental Quality, U.S. Department of the Interior and U.S. Fish and Wildlife Service on the Grand Bay Land Acquisition and Habitat Management Project funded by the Mississippi Trustee Implementation Group through the Natural Resource Damages Assessment funding stream as a result of the 2010 Deepwater Horizon oil spill. The project has acquired 1,500 acres of undeveloped land, established restoration plans for roughly 2,000 acres of historic longleaf and slash pine savannas, created over 5.1 miles of fire-lanes to increase access and safety for prescribed burns, conducted prescribed burns across 620 acres and established four new long-term monitoring plots (LTMs) to give us a total of 13 LTMs in representative areas.
- Continued a monitoring program to understand the effects of artificial subtidal and intertidal reef installation in the Grand Bay NERR.
- Completed an effort to standardize and analyze marsh surface data across 15 NERRs for the NERRs Science Collaborative-funded projects, "Is marsh surface tracking sea level change? Developing tools and visualizations for NERRs Sentinel Site Data."
- Grand Bay NERR Research Coordinator was awarded a three-year project to synthesize marsh vegetation data across 21 NERRs for the NERRs Science Collaborative-funded, "Detecting Impacts from Climate Change across Multiple Scales: A National Synthesis of Tidal Marshes." This effort will start in February 2021.
- Storm Water Management Program (SWMP) Coordinator received NERRs Technical Service Award for contributions to SWMP across the NERR system.
- Provided seven training workshops for 132 participants as part of our Coastal Training Program.
- Removed 7,025 pounds of debris from the Grand Bay NERR as part of our stewardship work.



## AQUACULTURE HATCHERY

Manager: Michael Lee



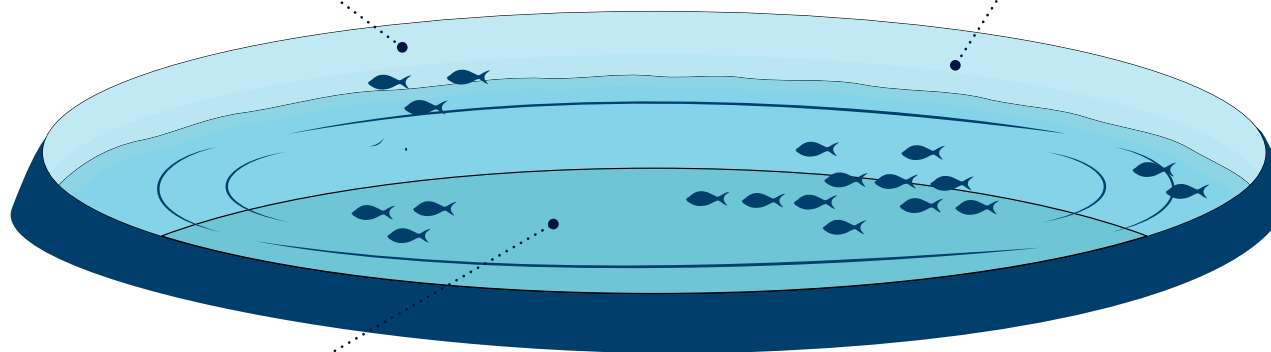
The aquaculture facility in Lyman is a MDMR-operated property that focuses on aquaculture restoration and commercial aquaculture opportunities. Buildings at the facility consist of: office/administrative, wet laboratory, broodstock quarantine facility, broodstock egg-production greenhouse, mechanical shop, feed storage building, maintenance shop, three tractor sheds, water laboratory, generator building, fish holding house and two pump houses.

Operations at the Lyman aquaculture facility are critical to the sustainability of marine fisheries, as well as important to Mississippi's economy. The hatchery helps create marketable products by developing techniques that can be transferred to the private sector for commercial aquaculture. Lyman aquaculture aids recreational fisheries by restoring and enhancing fish populations through the release of cultured organisms to enhance, restore and conserve these populations. Aquaculture for stock enhancement can provide a means to rebuild spawning stock biomass for species recovery.

THE AQUACULTURE HATCHERY  
*is situated on*

**214** ACRES

— 2020 PRODUCTION BEGAN WITH —  
**150** SPOTTED SEATROUT  
BROODSTOCK IN SPAWNING TANKS



**14** & **11**  
HALF-ACRE  
LINED PONDS EARTHEN  
PONDS

*of various sizes from a quarter-acre to 12 acres,  
totaling 30 and one-quarter acres of water*

## GOALS:

- Continue lined-pond rearing of juvenile Spotted Seatrout for stock enhancement.
- Support and work with local educational institutions, such as GCRL and the Ocean Springs High School aquaculture program.
- Work with private-sector, marine-related projects, as well as many neighboring state-run programs, to advance aquaculture for Gulf of Mexico marine species.

## ACCOMPLISHMENTS:

- Completion of broodstock greenhouse, including twelve 4,500 gallon spawning tanks.
- Spawning facilities produced over 2.5 million seatrout eggs for stock enhancement. The Spotted Seatrout is the most popular recreational fish in the Gulf of Mexico and receives the most pressure to its wild stocks.
- More than 30,000 Northern Hard Clams were held for growout in hatchery recirculating systems. The clams were used by the NERR to experiment with offshore clam aquaculture in the Mississippi Sound.
- Production of native salt marshes for coastal restoration.
- In 2020, the experimental on-site fish food production produced more than 1,000 pounds of hatchery feed for efforts toward sustainable aquaculture practices.



▲ (Top left) Seatrout broodstock spawning systems; (Top right) Seatrout eggs;  
(Bottom) Northern Hard Clams

▲ Native salt marsh plants

# ADVISORY COMMISSION ON MARINE RESOURCES

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The Mississippi Advisory Commission on Marine Resources is comprised of five members appointed by the governor for four-year terms to represent the following areas: commercial seafood processors, nonprofit environmental organizations, charter boat operators, recreational sports fishermen and commercial fishermen.



**The Honorable Tate Reeves**  
*Governor, State of Mississippi*



**Ronnie Daniels**  
**Chairman**  
*Charter Boat Operators*  
*Harrison County*



**Natalie Guess**  
**Vice Chairman**  
*Nonprofit Environmental Organizations*  
*Hancock County*



**Mark H. Havard, II**  
*Recreational Sports Fishermen*  
*Jackson County*



**Steve Bosarge**  
*Commercial Fishermen*  
*Jackson County*



**Richard Gollott**  
*Commercial Seafood Processors*  
*Harrison County*







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The logo is a circular emblem for the Mississippi Department of Marine Resources. It features a blue sky with a white bird in flight, a blue sea with white-capped waves, and a yellow sun partially obscured by a green marsh reed on the right. The word "MISSISSIPPI" is written in white capital letters along the top arc, and "DEPARTMENT OF MARINE RESOURCES" is written in white capital letters along the bottom arc. Two small yellow stars are positioned on the left and right sides of the circle.

ENHANCE ★ PROTECT ★ CONSERVE



MISS BRITTNEY

LADY ID ANN

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