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Coastal MARKERS

Volume 16, Issue 4
Spring 2013

Miller takes helm as new MDMR executive director

Gov. Phil Bryant selected Mississippi Gulf Coast native Jamie Miller to lead the Mississippi Department of Marine Resources (MDMR) as executive director. Gov. Bryant made the announcement during a press conference at MDMR headquarters in Biloxi on March 26. Miller's appointment was approved by the Senate on April 4.

Miller attended Gulfport High School and later graduated from the University of Southern Mississippi with a Bachelor of Science degree in Environmental Biology.

His professional career began at the MDMR in 1997, when then executive director Glade Woods hired him as a coastal ecologist. He has worked closely with Mississippi's state and federal legislators for the past seven years and just returned from serving in Washington, D.C., where he worked on many issues impacting Mississippi's marine and coastal resources.

Miller has supervised personnel and managed government budgets for more than 10 years at the municipal, state and federal levels. He has also worked in the private sector as a federal programs administrator and grants monitor. Following Hurricane Katrina, Miller worked closely with state policy makers to develop, implement and manage federal and state programs with budgets in excess of \$500 million.



New MDMR Executive Director Jamie Miller, left, addresses the audience at a press conference held March 26 in Biloxi with his wife Kelli and Gov. Phil Bryant.

MDMR and GCRL release red snapper fingerlings



MDMR and GCRL staff prepare to transfer tagged red snapper fingerlings to a boat's holding tank prior to transporting and releasing the fish in Mississippi waters.

(Photo: GCRL Public Information)

The MDMR, the University of Southern Mississippi Gulf Coast Research Laboratory (GCRL) and Aqua Green LLC in Perkinston, Miss., are partnering to produce popular recreational fish such as red snapper, spotted seatrout, and cobia for release into Mississippi waters. On Jan. 24, the group released 631 red snapper fingerlings onto an offshore artificial reef south of Horn Island. The fish were produced at GCRL's Thad Cochran Marine Aquaculture Center at its Cedar Point site in Ocean Springs.

In 2011, the MDMR, GCRL and Aqua Green formed a partnership with the goal of increasing red snapper production and release capability. The Jan. 24 release was the second release for the season. The total number released for the season was 1,217, a major first step in the reestablishment of the red snapper program.

GCRL began investigating aquaculture of this species more than 10 years ago and released several thousand fish around the year 2000. It is one of the pioneers in red snapper aquaculture and is currently the only facility in the world actively culturing red snapper, which are notoriously difficult to culture.

The red snapper is among the most popular recreational and commercial catches in the
Snapper, continued on page 3

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Director's Notes

Jamie M. Miller



Springtime is here! As the cooler days of winter fade and the Gulf waters warm, it brings with it an excitement and new opportunity to enjoy our marine resources through fishing, boating or just exploring the natural beauty of our coastal landscape. It is with the same optimism and fresh outlook that I plan to lead this agency in the upcoming months and years. You may have already noticed this spring edition of Coastal Markers has been redesigned for the first time in eight years.

So many people have asked me why I wanted to be the Executive Director of the Mississippi Department of Marine Resources. My answer is always the same—because our coastal and marine resources matter. I believe the opportunity to have a positive and lasting impact on our environment and economy is clearly within our grasp. The three coastal counties represent only a small geographic area of the state, but we have a big front yard and what happens in the Gulf of Mexico has a significant impact on Mississippi and the entire Gulf region.

As your Executive Director, I look forward to building a legacy of stewardship that our children and their children will be proud of. In just my first weeks on the job, I have had the privilege of meeting with more than 70 MDMR staff members and listened to their concerns and suggestions for the agency. I have tried to speak honestly about the challenges facing our agency and used words like *transparent*, *accountable* and *stewardship*. I have no doubt our future is bright and our best days lie ahead. I want to thank Governor Phil Bryant and the Commission on Marine Resources for placing their trust in me to lead this important agency.

In Appreciation,

Jamie M. Miller

Executive Director

**Activities of Marine Patrol
Officers working under the
Joint Enforcement Agreement
with NOAA from
January 2013-February 2013**

Patrols.....	57
Contacts.....	332
Sea hours.....	255
Man hours.....	901
State violations.....	5
Federal violations.....	3



**MARINE PATROL CITATIONS
JANUARY 2013-FEBRUARY 2013**

Shrimp-0
Crab-0
Oyster-7
Live Bait-1
Net Fish-3
Fishing-23
Miscellaneous Seafood-1
Boat and Water Safety-8
Marine Litter-5
Miscellaneous-3

TOTAL-51

Thanks!

*to all who contributed to this issue
of Coastal Markers:*

Donnie Armes, Laura Bowie,
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Jeff Davis, Dr. Fred Deegen,
Traci Floyd, Brooke Goff,
Larissa Graham, Ali Leggett,
Patrick Levine, John Mitchell,
Sandra Moore, Rusty Pittman, Ruth
Posadas, Jessica Rankin, David Rose,
Bill Richardson, Dave Ruple, Amy
Taylor, Jennifer Wagner,
Travis Williams, Mark Woodrey

Mississippi Derelict Crab Trap Cleanup a huge success



MDMR Shrimp and Crab Bureau staff Traci Floyd and Darrin Stewart load derelict traps collected by Pascagoula volunteers to be recycled.



Pascagoula commercial fishermen deliver lost traps to be recycled.

During the MDMR Shrimp and Crab Bureau's 2013 Derelict Crab Trap Cleanup, a total of 281 derelict crab traps were removed from Mississippi waters to be recycled at a Coast scrap-metal facility. The cleanup was held Feb. 21-23 in all marine waters.

All Mississippi crab trap license holders were notified to remove their active traps from the closure area the week of Feb. 14-20, in advance of the cleanup. There were 32 volunteers registered in advance to help with the effort, and many braved rainy and windy conditions to participate.

Volunteers turned in the derelict traps at three sites along the coast: Pascagoula Point (105 traps), Ocean Springs Harbor (145 traps) and Bayou Caddy Marina (31 traps). Sims Metal Management donated dumpsters and hauled the traps to its recycling facility.

Top contributing volunteers per site were Mark Kopszywa (60 traps at Ocean Springs Harbor), Wain Rogers (37 traps at Pascagoula Point) and Ernie Zimmerman (8 traps at Bayou Caddy).

"We can't express enough how much we

appreciate our volunteers and partners who have made this on-going project a success," said MDMR Shrimp and Crab Bureau Scientist Bill Richardson. "Special thanks goes to Mississippi's commercial and recreational crabbers who not only removed all of their own active traps from marine waters in preparation for the cleanup but also as a group provided the highest number of derelict traps to be recycled."

Volunteers submitted data cards with information on where traps were recovered and what was in them. This information will be compiled by long-time program partners at the University of Southern Mississippi's Gulf Coast Research Lab.

The Mississippi Derelict Crab Trap Removal Program is funded through the Tidelands Trust Fund. Mississippi was the first state in the Gulf to implement a derelict crab trap removal program. The program has removed and recycled 18,910 derelict crab traps from Mississippi's waters since its inception in 1999.

Snapper, continued from page 1

Gulf of Mexico, and its harvest is heavily restricted by the National Marine Fisheries Service due to recent overfishing of wild stocks in the region. The goal of this project is to develop aquaculture-based stock enhancement, which can serve as an additional tool that resource managers can use to maintain red snapper populations.

MDMR, GCRL and Aqua Green scientists and staff are working collaboratively to develop the techniques to spawn, intensively rear, tag and release red snapper, as well as monitor the success of released fish to refine the process.

More than 600 juvenile red snapper were released on Jan. 24. MDMR and GCRL staff will conduct post-release surveys to assess the movement of released fish. Hatchery fish can be identified through detection of a coded-wire tag or using genetic tagging.

Release sites are being sampled regularly. Post-release assessments will continue for months and the results will drive designs for future releases.



One of the more than 600 juvenile red snapper released Jan. 24 onto an offshore artificial reef south of Horn Island. (Photo: GCRL Public Information)

Lyman Hatchery News

New pond liners installed at MDMR Lyman Fish Hatchery

The MDMR Lyman Fish Hatchery has undergone extensive construction repairs to 14 half-acre ponds. The existing pond liners were 12 years old and completely worn out. Hatchery personnel performed all demolition work involved with this project.

Work began on the project Jan. 19 and concluded March 5, with the installation of over 450,000 square feet of liner material. The work was performed by Environmental Specialties International Inc. of Baton Rouge, La.

Compton Engineering oversaw the work performed and carried out all independent testing of the material and the seaming process.

With the completion of this project, MDMR Lyman Fish Hatchery will be able to carry out the 2013 growing season with full production of Florida Largemouth Bass as well as phase one and phase two Gulf Race Striped Bass.



Environmental Specialties International Inc. personnel install new liners at the MDMR Lyman Fish Hatchery.

MDMR, partners host Mississippi Artificial Reef Seminar



The MDMR Grand Bay National Estuarine Research Reserve and The University of Southern Mississippi held a Mississippi Artificial Reef Seminar March 12 at the Bolton Building in Biloxi. About 40 people attended the free seminar, which is part of a series aimed at enhancing familiarity between interested groups and increasing awareness of the programs, needs and opportunities that are relevant to marine research in Mississippi waters.

The seminar began with a brief overview by MDMR Fisheries Office Director Dale Diaz, followed by keynote speaker Erik Broussard, MDMR Artificial Reef Bureau Fisheries Scientist, speaking on the "Mississippi Artificial Reef Program."

Additional talks included the following: "Invasive Species—A Threat to Mississippi's Artificial Reef Fish Habitats," Mike Pursley, MDMR Aquatic Invasive Species Coordinator; "Red Snapper Aquaculture and Stock Enhancement: Opportunities, Issues and Research Needs," Eric Saillant, Ph.D., USM Gulf Coast Research Laboratory; and "Fishing Mississippi's Artificial Reefs,"



MDMR Marine Fisheries Scientist Erik Broussard talks about inshore artificial reef sites during the Mississippi Artificial Reef Seminar held in Biloxi.

Capt. Lenny Maiolatesi, Fighting Chicken Sportfishing Charters.

Attendees were invited to complete a brief written survey rating the effectiveness of the seminar. More than half of those attending completed one. Of those respondents, all found that the science seminar increased their understanding about artificial reefs in Mississippi waters. More than three-quarters of respondents answered yes to the question: "Did you learn something new that you will apply in your work or future decisions?" and more than 86 percent of respondents agreed that participating in the science seminar was a good use of their time.

For more information on the Science Seminar Series, contact the MDMR Shrimp and Crab Bureau at (228) 374-5000.

MDMR awards young marine scientists for excellence

The MDMR presented five local students with the MDMR Excellence in Marine Sciences Award at the Region VI Science and Engineering Fair held March 5, 2013, at the Mississippi Gulf Coast Coliseum and Convention Center. The MDMR has sponsored the award for more than 15 years.

The MDMR's Excellence in Marine Sciences Award was established to encourage local students to develop research projects involving Mississippi's coastal resources. With this award, the MDMR hopes to encourage students to identify and find solutions to the Coast's environmental problems. Each winner received a certificate and monetary award.

"The winners of the younger classes each receive \$100. The older winners each get \$200, because they will most likely be advancing to the state competition. The extra money will enable them to enhance their exhibits, so they will have a better chance of winning at that next level of competition," said Jennifer Buchanan, Education



(From left to right) Noel Campbell, Cedar Lake Christian Academy; Isabel Cheney, Ocean Springs High School; Adara Binnaz Rutherford, Hancock Middle School; Myers Hogan, St. James Elementary; Boyd Driggers, Magnolia Park Elementary

Coordinator for the MDMR/Grand Bay National Estuarine Research Reserve.

Class I entries represent students in grades kindergarten through three; Class II, grades four through six; Class III, grades seven and eight; Class IV, grades nine and 10; Class V, grades 11 through 12.

Winners of this year's Excellence in Marine Sciences Award are as follows, in

order of class: Boyd Driggers, Magnolia Park Elementary, for "Phototaxis in Zooplankton," Class I entry, \$100; Myers Hogan, St. James Elementary, for "What Is This Stuff?" Class II entry, \$100; Adara Binnaz Rutherford, Hancock Middle School, for "Has Bay St. Louis and Mississippi Sound Water Quality Improved Since 2010 Oil Spill?" Class III entry, \$200; Isabel Cheney, Ocean Springs High School, for "The Effect of Salinity on the Germination of Inland and Island Slash Pine Seeds," Class IV entry, \$200; and Noel Campbell, Cedar Lake Christian Academy, for "Taming the Tsunami," Class V entry, \$200.

The award is presented by the MDMR to outstanding Region VI science fair entries that address a marine- or coastal-related issue. In consideration for the award, all project titles are reviewed and each student with a marine- or coastal-related project is interviewed and questioned about his or her project. Finally, MDMR judges rate the eligible projects and the ratings are compiled to determine the overall winners.

MDMR serves up MS seafood to Hattiesburg tornado victims, relief workers



The MDMR was in Hattiesburg on Saturday, Feb. 23, cooking for relief workers and victims of the Hattiesburg tornadoes and delivering much-needed relief items donated by MDMR employees.

"This was a very rewarding experience and one the employees of MDMR should be proud of," said MDMR Deputy Director Danny Guice, Jr.

Declared a federal disaster, the Hattiesburg tornadoes damaged more than 800 homes in the southern region of the state and destroyed parts of the University of Southern Mississippi on February 10. President Obama has ordered federal aid to supplement state and local recovery efforts.

The cookout featured seafood generously donated by the Mississippi seafood community, including Quality Poultry &

Seafood, M&M Processing, C.F. Gollott & Son Seafood, Crystal Seas Oysters, Desporte & Sons Seafood, Family Frozen Foods and Clawzilla's Seafood and Restaurant.

A team of eight MDMR Marine Patrol officers cooked and served up 150 pounds of shrimp, 200 pounds of fish, 50 pounds of chicken and 8 gallons of oysters to more than 300 people, including first responders and tornado victims. Also in attendance were Hattiesburg Mayor Johnny DuPree, Forrest County Sheriff Billy McGee, Representative Larry Byrd, MDMR Deputy Director Danny Guice, Jr., and



From left, MDMR Marine Patrol Officers Matt Kasovich, Donnie Armes and Mario Sapet prepare Mississippi seafood to be cooked and served to Hattiesburg tornado victims and relief workers.

MDMR employee, Jennifer Wagner. The cookout was held from 11 a.m. to 1:30 p.m. at Hattiesburg Fire Station #1, located on N. Main Street in Hattiesburg.

MDMR employees had also collected supplies for tornado victims, which were dropped off at Christian Services located at 301 E. 2nd St. in downtown Hattiesburg.



Gulf Alliance

Gulf of Mexico Oil Spill & Ecosystem Science Conference held in New Orleans

The Gulf of Mexico Alliance's research program, the Gulf of Mexico Research Initiative, recently held its first annual Gulf of Mexico Oil Spill & Ecosystem Science Conference in New Orleans, La. Scientific community enthusiasm and need for this conference generated a robust agenda. A keynote address was presented by Admiral Thad Allen who gave an insightful talk about lessons learned during the Deepwater Horizon event; he also offered specific suggestions for policy change and moving forward within federal agencies, across the interaction of those agencies, state government and the scientific community.

Five other plenary speakers were engaged to set the scene for scientific discourse during the conference. Topics included reflection on past events as they relate to oil spill chemistry, our state of the knowledge of ecosystem-level science, public health and related community science, socio-economics,



and policy. The meeting closed with the same five speakers providing wrap-up suggestions and research gap analysis, along with a comment session to solicit input from the conference attendees.

In addition to over 330 oral research project presentations, other activities included a public forum and an interactive

teacher workshop. The public forum was held to provide an opportunity for scientific feedback to the community at large. Dr. Donald Bosch and Dr. Steve Murawski provided their perspectives on the status of offshore and nearshore marsh science with summaries about what we have learned since the spill. This was followed by public comment highlighted by coastal community concern regarding seafood safety and public health concerns along the coast and ecosystem recovery.

The interactive teacher workshop was funded by the National Science Foundation (NSF) and organized

by the Mississippi-Alabama Sea Grant Consortium. It involved six teachers from across the Gulf States who attended a pre-conference workshop, participated in the three-day conference, and then a wrap-up workshop to identify ways to incorporate what they heard at the conference into their K-12 classroom education.

Mississippi Coastal Cleanup celebrates 25 years of volunteerism

What do an unopened safe, a chandelier and a tiki hut all have in common? They are among the unusual items found by volunteers cleaning up the beaches and coastal waterways during the 2012 Mississippi Coastal Cleanup, which is part of the International Coastal Cleanup, the world's largest volunteer effort to clean up the marine environment. This year marks the 25th anniversary of the Mississippi Coastal Cleanup, and its organizers—the Mississippi Department of Marine Resources (MDMR) Public Affairs Bureau and the Mississippi Marine Debris Task Force—recently formed a 25th anniversary committee to kick off a yearlong coastwide celebration of the event.

The Cleanup offers a unique hands-on learning opportunity for Mississippi residents and visitors to become aware of the problem of marine debris. The 25th anniversary

committee held its first meeting Feb. 5 and elected officers. Lauren Thompson was named chair, Ed Cake will serve as vice chair and Cyndi Moncreiff was elected secretary.

"This year's cleanup will be a special event with several volunteer recognition gatherings and celebrations taking place during the months leading up to the Saturday, Oct. 19, 2013, Mississippi Coastal Cleanup," said Cyndi Moncreiff, Ocean Springs coordinator for the Mississippi Coastal Cleanup. "We will be making a special effort to recognize the 25th year of this event in coastal Mississippi, focusing on appreciation of the long-time volunteers who help out every year, and also the longevity of this event along our coast."

To learn more about the Mississippi Coastal Cleanup or view results of past cleanups, visit www.mscoastalcleanup.org and like us on Facebook!



The Mississippi Coastal Cleanup 25th anniversary committee held its first meeting Feb. 5 in Biloxi. Pictured from left: Ellis Cuevas, Tommy Kidd, Irene McIntosh, Ed Cake and Cyndi Moncreiff. Not pictured: F.J. Eicke, Marie Mullen, Joyce Nelson, Joyce Shaw and Lauren Thompson.

MDMR offers free boating safety classes

The MDMR Boat and Water Safety classes are scheduled in the coastal counties: Jackson, Harrison and Hancock. To reserve a spot in a class, please call the number next to the class you are interested in attending. Classes with fewer than 10 students will be cancelled and students will have the option to attend the next available class. The Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) also offers free classes.

Jackson County Classes

- **May 11** - Mississippi Gulf Coast Community College, Jackson County campus, Gautier, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.
- **June 8** - Lower Pascagoula WMA headquarters, Wade/Vance Road at Parker Lake, 601-783-2982, MDWFP, 8 a.m.-3 p.m.
- **July 27** - Mississippi Gulf Coast Community College Jackson County campus, Gautier, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.

Harrison County Classes

- **May 4** - Bolton Building, Biloxi, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.
- **June 1** - Pass Christian Oyster Check Station, Pass Christian Harbor, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.
- **June 22** - Bolton Building, Biloxi, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.
- **July 13** - Bolton Building, Biloxi, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.
- **July 20** - Pass Christian Oyster Check Station, Pass Christian Harbor, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.
- **August 3** - Bolton Building, Biloxi, 228-523-4134, MDMR, 8:30 a.m.-4 p.m.

Hancock County Classes

- **May 18** - Kiln Library, 601-783-2982, MDWFP, 8:30 a.m.-2:30 p.m.
- **June 29** - Kiln Library, 601-783-2982, MDWFP, 8 a.m.-2:30 p.m.

MDMR Marine Patrol rescues two men near Square Handkerchief Reef

The Mississippi Department of Marine Resources (MDMR) Marine Patrol rescued two men March 15 whose 21-foot catamaran-style boat was swamped near Square Handkerchief Reef about four miles south of the Bay St. Louis Bridge. The two men, Michael Mong, 32, the captain of the boat, and Charles Givens, 37, both of Gulfport, were anchored near Square Handkerchief Reef. When the boat started sinking, the two men put on life jackets and swam to the rocks. Mong called Hancock County Emergency 911, and they contacted MDMR Marine Patrol. Marine Patrol received the call at 3:38 p.m., and MDMR Marine Patrol Msgt. John Grimsley and Msgt. Will Freeman arrived on the scene at 3:48 p.m. The two men were picked up. No injuries were sustained.



For more information on boating safety, please call MDMR Marine Patrol at 228-523-4134.

The MDMR Marine Patrol-sponsored courses have been designed to effectively introduce topics such as boat registration, navigation rules, trailering, first aid response and weather watch into a comprehensive one-day class.

These programs and certification courses are conducted by the MDMR free of charge, in the three coastal counties, year-round for the public and in the school systems. In the MDMR's Boat and Water Safety presentation program, students learn the history of boat and water safety, the duties of the MDMR's Marine Patrol, what to expect in the certification course and why there is a need.

Did you know?

- In order to operate a motorboat or personal watercraft in Mississippi, those born after June 30, 1980, are required to successfully complete an approved boating safety course and to have a certificate of satisfactory completion in their possession while in operation of the motorboat.
- In Mississippi, it is against the law for anyone under 12 years old to operate a motorboat or personal watercraft unless they possess a certificate and are accompanied by a parent, guardian or other person who is at least 21 years of age.
- A wearable type life jacket is required onboard for all persons underway on boats in Mississippi waters.
- Anyone riding or operating a personal watercraft in Mississippi waters must wear a U.S. Coast Guard approved type 1, 2, or 3 Personal Flotation Device (PFD).
- Anyone who has not reached their 13th birthday must wear a PFD at all times when underway in a vessel under 26 feet in length.



In search of the elusive Yellow Rail



Captured Yellow Rail – note the white wing patch, which is characteristic of this species. (Photo: Jake Walker)

Have you ever thought about searching for the “holy grail”? Ever considered it could be found right here on the Mississippi Gulf Coast? For professional ornithologists and amateur bird-watchers alike, a cryptically colored robin-sized bird called a Yellow Rail is considered by many as the “holy grail” of the bird world. And it turns out we can find these birds in wet pine savanna habitats found along the Mississippi-Alabama coast.

Beginning in 2010, biologists from Mississippi State University, the U.S. Fish

and Wildlife Service, the Grand Bay National Estuarine Research Reserve (NERR), and the Alabama Department of Conservation and Natural Resources-State Lands Division, along with local birders, have been looking for and finding these rare birds in managed areas of public lands.

Because of its secretive habits and camouflaged color, along with the loss and degradation of southeastern coastal grassy wetlands and marshes (including wet pine savannas), the Yellow Rail is listed across the five Gulf Coast states as a Species of Greatest Conservation Need. It is further designated by the U.S.

Fish and Wildlife Service as a Focal Species and noted as a High Conservation Priority Species by a variety of bird conservation groups. Collectively, these designations imply that the Yellow Rail is the focus of ongoing conservation actions aimed at returning the species to healthy and sustainable numbers.

Despite these designations, essentially, nothing is known about this species’ life history, including where they occur and in what numbers, nor do we know what habitats

they prefer during winter along the Gulf Coast. Thus, a broad group of researchers and biologists are focusing their efforts on several areas in coastal Mississippi and Alabama, particularly the Mississippi Sandhill Crane National Wildlife Refuge and the Grand Bay NERR, both located in Jackson County, Mississippi. The objectives of this group are to 1) develop techniques for surveying wintering rails in wet pine savanna habitats; 2) determine the abundance of these rails in different habitat types; and 3) determine the home range size of wintering Yellow Rails. These objectives are accomplished using rope drags conducted at night to census overwintering populations, and radio-telemetry to monitor habitat use and movement.

Since 2010, we have observed more than 70 individual Yellow Rails during our nighttime surveys. Based on our experience, a rope-dragging technique appears effective for flushing birds, allowing us to census the population. Most of the rails we capture and outfit with radio-transmitters do not move great distances during the winter; most stay within a couple hundred yards of their original location. Our preliminary data suggest that more frequent prescribed fires may be important for these birds, but more data are being collected to clarify this relationship.

Coastal communities attend climate adaptation training

Grand Bay NERR partnered with Weeks Bay NERR, Mississippi-Alabama Sea Grant, and Southern Climate Impacts Planning Program to offer a Climate Adaptation workshop, which was taught by trainers from NOAA’s Coastal Services Center.

Participants included staff from regional, town and county agencies, non-profit groups, and consultant companies. These stakeholders learned how climate change will impact coastal communities, how to identify the key elements of a vulnerability assessment and use this information to select and prioritize adaptation efforts, how to evaluate strengths and weaknesses of adaptation measures, and how to communicate more effectively with their communities.

Various experts presented at the workshop to make the training more applicable at a local level. Participants also had a chance to learn from other coastal communities that have already begun efforts to adapt to climate change. The Grand Bay NERR Coastal Training Program plans to continue working with communities along coastal Mississippi to create more resilient communities that are better prepared for the impacts of climate change.



Participants from Mississippi and Alabama attended a three-day workshop to better prepare their coastal communities for the impacts of climate change.

Alternative spring-breakers and Habitat Stewards provide assistance

Alternative spring-break college students organized by Community Collaborations International have completed the majority of their work slated for the Mississippi Coastal Preserves. In particular, they completed a tree planting project in the spring of 2013; planting 945 trees on two Coastal Preserves: Bayou LaCroix and Hancock County Marshes.

In addition to the tree planting project, the students built 3,000 feet of new trail on the Indian Point Trail in the Pascagoula River Coastal Preserve; removed storm debris from the Pascagoula River and the Graveline Bay Coastal Preserves; and installed transects for sea turtle surveys at the Graveline Bay Coastal Preserve. There were 180 spring-break volunteers from several colleges and universities: Keene State College (New Hampshire); Baldwin Wallace University (Ohio); Texas A&M University; Ithaca College (New York); University of Virginia; Wartburg College (Iowa); Johnson State College (Vermont); and the University of Connecticut.

The students worked with Mississippi Habitat Stewards: Janet Wright, Fred Pettersen, Irvin Haydel, Judy Reeves, Cynthia Ramseur, Gilbert Ramseur and Ashley Easterling. The Mississippi Habitat Stewards Program, a project of the Mississippi Wildlife Federation, provides trained volunteers to help work in natural areas in south Mississippi. Community Collaborations International organizes teams of volunteers from universities and colleges all over the country and puts them to work where they are needed. Both the student volunteers and the Habitat Stewards are enthusiastic and hard-working folks who have made significant contributions to maintaining our Coastal Preserve natural areas. Their efforts are greatly appreciated.



Alternative spring-break students are still enthusiastic after a long day of planting trees.



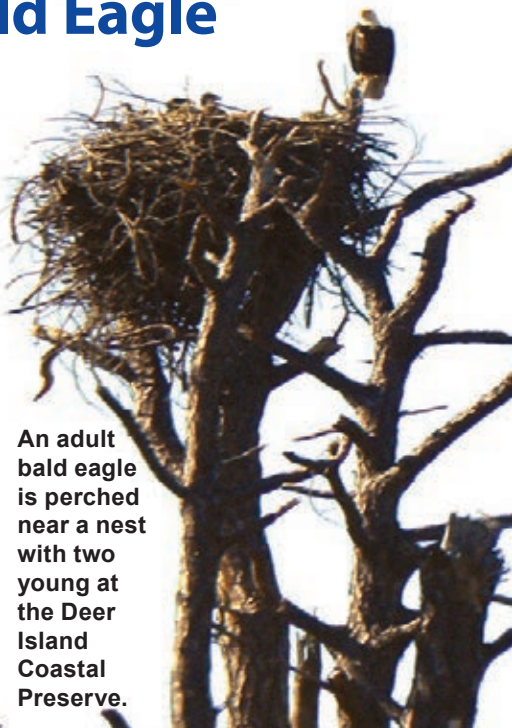
Students from Wartburg College in Iowa next to cypress trees to be planted in the Bayou LaCroix Coastal Preserve.

Coastal Preserves Wildlife: Bald Eagle

The Bald Eagle (*Haliaeetus leucocephalus*), which is our national symbol, can be seen on many of the Mississippi Coastal Preserves, particularly from November to March. Bald eagles are large birds weighing 10 to 14 pounds with a wing span of 6 to 7 feet. Their body length is approximately 3 feet. Juvenile bald eagles are mottled brown and white and look similar to golden eagles, which are only rarely seen in Mississippi. Bald eagles lack their characteristic white head and white tail until they reach maturity at 4 to 5 years. They are known to live up to 30 years in the wild. Bald eagles are often seen near lakes, rivers and coastlines in which they feed mostly on fish. However, they will feed on other birds, ducks and small mammals when the prey is available and easy to obtain. They will also feed on carrion (dead animals).

Their nests are approximately 6 feet across, 4 feet deep and can weigh as much as 1,000 pounds. Males and females generally mate for life. In coastal Mississippi, nesting usually begins in December, with females laying one to three eggs. The eggs hatch within 35 days and the young birds will begin flying at approximately 3½ months.

The bald eagle is an Endangered Species Act success story. Although once on the verge of extinction in the lower 48 states, their numbers increased to sufficient levels by 2007 to allow their removal from the Endangered and Threatened Species List. However, they remain federally protected under the Bald and Golden Eagle Act, the Migratory Bird Treaty Act, and the Lacey Act, as well as through state and local laws. Felony violations of these federal acts can result in a \$250,000 fine and two years imprisonment.



An adult bald eagle is perched near a nest with two young at the Deer Island Coastal Preserve.

Seafood Safety Corner



Jessica Rankin



Jeff Davis

Spring is here and the Seafood Technology Bureau (STB) is conducting its fourth quarter inspections. Fourth quarter inspections are the most important inspections during the year. During this quarter, inspectors determine if seafood facilities will be recertified for the following year. Facilities and their Hazard Analysis Critical Control Point (HACCP) records are inspected for possible incompliance to the program. In order for a seafood facility to be recertified, certain HACCP and sanitation requirements of the National Shellfish Sanitation Program (NSSP) must be met.

Permit recertification cannot be issued without the renewal of a dealer's or processor's license. All commercial licenses purchased will expire April 30, 2013. New licenses are valid from May 1, 2013 to April 30, 2014 and became available for purchase April 1. For further information on license pricing, please visit <http://www.dmr.ms.gov/licensing> or call the MDMR license office at 228-374-5000.

Spring ushers in warmer weather. With this in mind, members of the STB staff would like to remind dealers and processors about proper maintenance of coolers. HACCP guidelines recommend coolers be monitored two times a day if oysters are being stored in the cooler. Backup coolers are a good investment in case your primary cooler fails. Always verify that your backup unit is clean and operational. The recommended temperature for storing oysters is 45°F or below. Cooler thermometers should be calibrated every six months in order to verify that correct readings are being taken.

Springtime is always an especially busy time of year for the STB staff with all the above mentioned inspections. With the nicer weather come outdoor festivals. STB staff attended the annual Mississippi Coast History Week February 18-20. The event was held in the Biloxi Visitors Center on U.S. 90. Several historical societies attended and educated visitors and students about the rich history and culture of the Mississippi Gulf Coast.

In March, STB was invited to take part in Career Day at D'Iberville Middle School where staff talked to students about the Department's mission and the importance of being good stewards of our coastal environment. With the help of the Coastal Impact Assistance Program, the St. Martin Center for Gifted Excellence participated in a Deer Island cleanup. Staff joined students in the cleanup and collected over 100 pounds of trash.

For more information on upcoming events and the STB outreach program, contact the STB's outreach coordinator, Jessica Rankin, at Jessica.Rankin@dmr.ms.gov or call 228-523-4095.



Above photos: Students of the St. Martin Center for Gifted Excellence participate in a Deer Island cleanup, collecting more than 100 pounds of trash.

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Take a Bow

Recognizing employees' commitment to excellence

Science Lab opens at Bel-Aire Elementary with help from MDMR, GCRL

Students and teachers at Bel-Aire Elementary School in Gulfport are enjoying the hands-on learning experience of their new Aquatic Science Laboratory. Through the hard work of John Leon, the CIAP Project Coordinator, students, teachers and school officials, this dream project has become a reality.

On January 30, 2013, the new Aquatic Science Laboratory held its grand opening. Representatives from the Mississippi Department of Marine Resources (MDMR) and Gulf Coast Research Laboratory (GCRL), Harrison County School District officials, U.S. Fish and Wildlife-Coastal Impact Assistance Program Liaison Officer Kristin Smith, members of the media and parents were in attendance. The Aquatic Science Laboratory is the only one of its kind in the district.

The science laboratory was made possible with the help of a \$5,500 grant from MDMR through CIAP funding under the Mississippi Environmental Stewardship program of the MDMR Office of Marine Fisheries, Seafood Technology Bureau, and about \$10,000 worth of equipment from GCRL. For years to come, students will be able to explore the petting tanks and several aquaria of marine animals and plants and learn about these creatures and the coastal habitats of the Gulf Coast region in which they live.



MDMR employees collect Mardi Gras beads for recycling

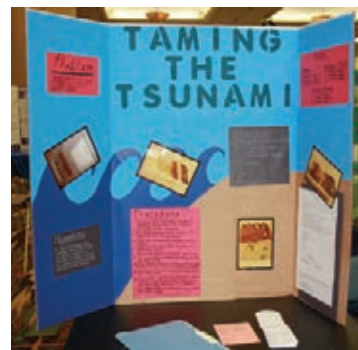


Kristina Broussard, a marine fisheries scientist with the MDMR Shellfish Bureau, shows off the more than 200 pounds of Mardi Gras beads that MDMR employees donated to Gulf Coast Industries Mental Health Center's annual Mardi Gras bead recycling drive.

MDMR employees collected over 200 pounds of Mardi Gras beads to be recycled by the "Throw-M-Again Beads" program. This program is a part of the Gulf Coast Industries Mental Health Center Annual Mississippi Coast-wide Mardi Gras Bead Collection and Recycling Drive. This project gives adults with intellectual and developmental disabilities an opportunity to learn, train, work and earn money. The beads will be separated, repackaged and sold back to Mardi Gras crew members for next year's parades. MDMR's participation in the program was coordinated by Kristina Broussard, a marine fisheries scientist with the MDMR Shellfish Bureau.

MDMR employees judge Coast science fairs

Many thanks to those MDMR employees who served as judges or assisted at local science fairs held this year all along the coast. Judges included: Jessica Rankin, Rick Ranew, Jeff Davis, Mai Dang, Kristina Broussard, Jennifer Buchanan, Jill Zednick, Ruth Posadas, Robin Vaughan, Larissa Graham and Rick Burris. Volunteers judged science fair projects at the following schools: Anniston Elementary, St. James Elementary, Nativity BVM Elementary and Ocean Springs Upper Elementary. MDMR employees also volunteered at the Region VI Science and Engineering Fair held March 5 at the Mississippi Coast Convention Center in Biloxi, judging those projects chosen for the MDMR Excellence in Marine Science Awards program.



Happy Anniversary!

These anniversaries mark employees' years of service with the MDMR. We thank them for their dedicated service to the management of our marine resources.

Doug Drieling.....	01/01/95	Willa Brantley	02/12/04
Rita Duvernay.....	01/01/95	Rick Ranew	02/13/10
Kerry Endris.....	01/01/95	Jeff Grant.....	02/01/06
Rhonda Price.....	01/01/99	Will Underwood	02/08/09
Melanie Lane.....	01/01/00	Jennifer Wittmann.....	02/15/06
R.T. May.....	01/01/00	Sandra Moore.....	02/18/08
Jeff Payne.....	01/01/00	Karen Carron.....	02/25/02
Jamie Herring.....	01/01/03	Jeff Davis.....	03/01/02
Baron O'Grady.....	01/01/07	Mike Strickland.....	03/14/11
Susan Perkins.....	01/01/08	Tom Doster.....	03/05/07
Jed Bullard.....	01/01/09	Evelyn Thompson.....	03/12/01
Diane Fisher.....	01/10/00	Dwayne Armes.....	03/14/11
Jan Boyd.....	01/15/98	Patrick Webb.....	03/15/04
Christopher Scott.....	01/16/12	Christy Royals.....	03/15/10
Kimberly Cressman.....	01/24/11	Leo Christie.....	03/17/99
Wes Devers.....	01/29/01	Debbie Belk.....	03/25/02
Ruth Posadas.....	01/29/01	Jimmy Sanders.....	03/26/01
Jeff Clark.....	02/01/99		



Mississippi Department
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MDMR Calendar

April 21

37th annual Pass Christian Blessing of the Fleet, Pass Christian Harbor, 10 a.m.-4 p.m., Call 228-452-5128 for information.

April 27

CCA Casting for Conservation Kids Fishing Rodeo, River Park, Pascagoula, 8 a.m., Contact: F.J. Eicke, 228-806-1073.

May 11

CCA Casting for Conservation Kids Fishing Rodeo, American Legion Pier, Bay St. Louis, 9 a.m., Contact: O.J. Johnson, 228-363-3264.

May 21

Mississippi Commission on Marine Resources meeting, Bolton Building, 1141 Bayview Ave., Biloxi, 9 a.m.

June 1-2

84th annual Blessing of the Fleet and Fais Do Do, Biloxi Town Green and the Biloxi Channel, Saturday 10 a.m.-10 p.m. and Sunday 2 p.m. Call 228-435-6339 for information.

June 18

Mississippi Commission on Marine Resources meeting, Bolton Building, 1141 Bayview Ave., Biloxi, 9 a.m.



Mississippi Seafood Cook-off
May 31
MSSeafood.com

Doc's Fishing Tip

Spring is bustin' out all over, and it is high time for you to break out the fishing tackle and head for the front beaches. Trout, reds, flounder and more are in store for anyone with the gumption to hit the beach at daybreak when the action is at its best. Live shrimp, of course, are the surest bet for hooking up with just about anything that swims this time of year; but there are a variety of tried and tested artificial baits that on any given day might give a live shrimp a run for its money. I favor topwater baits like Zara Spooks, MirrOlures and Rapala Skitter Walks for trout and reds, but soft plastic jigs fished with or without a popping cork will also bring good results. And don't forget to give a gold or silver spoon a try when all else fails. Sometimes fluttering a Johnson Sprite off the bottom is just the ticket for success.

Until next time, good fishing! — Dr. Fred Deegen

Illustration: Joe Jewell



Mississippi Blue Crab Spread

16 oz. Mississippi Blue Crabmeat (remove all shell)
1 egg, beaten
1 8 oz. package cream cheese, softened
1 tbsp. milk
2 tsp. Worcestershire sauce
2 tbsp. green onions, chopped
2 tbsp. toasted slivered almonds
Assorted crackers

In a medium-size mixing bowl, combine egg, cream cheese, milk and Worcestershire sauce. Add the crabmeat and onions and mix well. Transfer the mixture to an 8-inch pie plate and top with almonds. Bake or microwave until thoroughly heated. Serve warm with crackers.

Recipe by Irvin Jackson



For more recipes visit
MSSeafood.com

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