

Coastal Markers



Volume 12, Issue 2

NEWSLETTER OF THE MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

Winter 2009

Reef balls help offshore reefs bounce back

DMR and Mississippi Gulf Fishing Banks are working together to enhance reef fish habitat in Mississippi with Goliath reef balls, large concrete balls used to create artificial reef habitat. DMR deployed the structures Sept. 27 and Oct. 2 in FH-1 and FH-2 offshore reefs, about 10 to 12 miles south of Horn Island.

More than 300 reef balls were made at Matthews Marine in Pass Christian. The Goliath ball, the largest of its kind, measures 6 feet wide by 5 feet high and has a surface area of about 230 square feet. Each weighs 4,000 to 6,000 pounds. Some of the balls will be used to assess reef fish colonization.

“These reef balls are known to create excellent habitat for reef fish,” said DMR Artificial Reef Bureau Director Kerwin Cuevas. “Studies have shown that the Goliath balls remain stable during hurricane and tropical storm events. With up to 80 percent of our reef habitat lost during Hurricane Katrina, these reef balls are much needed to re-create a stable habitat for our reef fish.”

The Goliath balls are made from a special mixture of concrete that creates a balanced pH, which allows microorganisms to attach and grow, creating a living reef. Each ball has between 25 and 40 holes. Cinder blocks were inserted into 30 balls to increase complexity and protection for smaller and younger fish.

The concrete reef balls are being used for the first time in Mississippi and are funded through the National Fish and Wildlife Foundation and the National Oceanic and Atmospheric Administration’s Emergency Disaster Relief Program.

DMR will compare the Goliath habitat with the Florida Limestone Pyramid habitats deployed last year and study the abundance and species richness that each type of habitat attracts to determine which artificial reef habitat is more successful.



DMR Artificial Reef Bureau Director Kerwin Cuevas drops a concrete block into a Goliath reef ball. The concrete blocks create a more complex habitat for young and small fish.

Steve Bosarge appointed to Commission on Marine Resources by Gov. Barbour

Steve Bosarge of Pascagoula was appointed by Gov. Haley Barbour to represent commercial fishermen on the commission and was sworn in at the July Commission on Marine Resources meeting.

See page 3 for full story.



Commissioner Steve Bosarge is a third-generation commercial fisherman who was born and raised on the Mississippi Gulf Coast.

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**Mississippi Department
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1141 Bayview Avenue
Biloxi, MS 39530
(228) 374-5000
dmr.ms.gov

State of Mississippi
Haley Barbour
Governor

**Mississippi Commission on
Marine Resources**

Vernon Asper, Ph.D., Chairman
*Nonprofit Environmental
Organization*

Richard Gollott, Vice Chairman
Commercial Seafood Processor

Shelby Drummond
Recreational Sports Fisherman

Steve Bosarge
Commercial Fisherman

Jimmy Taylor
Charter Boat Operator

William W. Walker, Ph.D.
Executive Director

William S. "Corky" Perret
Deputy Director

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Lauren S. Thompson
Editor-in-Chief

Shelly Becker
Graphic Designer

Lisa Damiano Jones
Editor

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VISIT DMR ONLINE
dmr.ms.gov

Director's Notes

Dr. William Walker



While dining out with friends recently, a diner at the next table was loudly singing the praises of some delicious fat Mississippi oysters he had enjoyed earlier that week at Mikey's On The Bayou

in Ocean Springs. He described the salty sweet taste and said he could tell by the flavor that the oysters came from the Pass.

Mississippians love their seafood and their fishing. Mississippi's inshore and offshore fishing reefs have shown signs of bouncing back. The influx of federal disaster recovery dollars has resulted in large deployments of artificial reef material up and down the Coast. This includes 300 Florida Limestone Pyramids, 315 Goliath reef balls, 16 barge loads of concrete culverts and eight steel hull vessels deployed offshore as well as 6,000 cubic yards of crushed concrete and 4,500 cubic yards of limestone deposited to inshore reefs. Similarly, federal dollars have also been put to work successfully rebuilding Mississippi's oyster reefs. Well over 48,000 cubic yards of oyster shell and limestone were planted in August and September alone, bringing the total number of cubic yards of cultch material planted on Mississippi oyster reefs since Hurricane Katrina to a whopping 142,370.

As a result, Mississippi's oyster resource is rebounding. Oyster harvesters, consumers and industry are reaping the rewards of the massive amounts of cultch material being relayed and planted on Mississippi oyster reefs since Katrina. In December we have exceeded 200,000 sacks of oysters harvested so far this season, with more than 200 boats a day working—three-quarters of these are resident fishermen—and these boats have made more than 8,600 trips.

The cultivating and stewardship of these reefs has been a real partnership between the DMR and the oyster fishermen. The result is an abundant and delicious bounty for all to enjoy. So when you're topping off your turkey with some oyster dressing, remember to give thanks for this valuable resource that has returned to the Mississippi Sound.

Executive Director

New shrimp hotline 1-866-WeTrawl

The DMR Shrimp and Crab Bureau has initiated a toll-free Mississippi shrimp fishery information line. The number is 1-866-We Trawl (1-866-938-7295).

"Fishermen are often at sea for long periods of time and don't always have access to newspapers and other media for the latest information," said DMR Shrimp and Crab Bureau Director Traci Floyd. "With this in mind, the DMR is pleased to provide the Shrimp Information Hotline. Regulatory information such as area openings and closures and federal Emergency Disaster Recovery Program updates are currently available."

NOW AVAILABLE! 2009 Marine Calendar



Call (228) 374-5000.

Thanks!

**Thanks to all those who
contributed to this issue of
Coastal Markers.**

Irvin Jackson	Dave Ruple
Linda Wakefield	Rick Ranew
Dr. Fred Deegen	Dr. Lena Melton
Kerwin Cuevas	Ali Rupp
Amy Taylor	Jeff Davis
Rick Burris	Jan Boyd
Traci Floyd	Joe Jewell
Bradley Randall	Ruth Posadas
Scott Gordon	Susan Perkins
Steve Breland	Dorothy Daniel

Mississippi seafood crowned king

Chef John Currence, owner and founder of City Grocery, Bouré and Big Bad Breakfast in Oxford, Miss., took top honors and was crowned King of Seafood in the fifth annual Great American Seafood Cook-Off held in New Orleans on Aug. 2 and 3.

Mississippi's participation in this year's event was organized through the Mississippi Seafood Marketing Program and Sarah McCullough with Mississippi Cultural and Heritage Tourism, under the Mississippi Development Authority.

"Of course we are very proud of John, and he has brought our great Mississippi and Gulf seafood to the forefront," said Irvin Jackson, director of DMR's Mississippi Seafood Marketing Program. "I know Chef Currence will be a great ambassador for Mississippi seafood in the coming year."

Although originally from New Orleans, Currence has been owner and chef at City Grocery in Oxford since 1992 and represented Mississippi in this year's most prestigious seafood competition.

Fifteen chefs from across the nation competed in the Great American Seafood Cook-Off held in New Orleans at the Morial Convention Center. Each chef cooked dishes using seafood native to their state. Currence's winning dishes were Mississippi Food Chain with redfish, smoked shrimp and corn *macque choux* topped with crabmeat, and Redfish Courtbouillon with Seafood Dirty Rice.

"What we did today was very soulful," Currence said after he won. "Courtbouillon is just a great vehicle for seafood."



Mississippi chef John Currence is crowned King of Seafood at the Great American Seafood Cook-Off in New Orleans.

Commission on Marine Resources continued from page 1

The Mississippi Commission on Marine Resources (CMR) swore in three commissioners and elected officers for the new term at its July 15, 2008 meeting held at the Mississippi State University Coastal Research and Extension Center in Biloxi. Steve Bosarge of Pascagoula was appointed by Gov. Haley Barbour to represent commercial fishermen on the commission and was sworn in at the meeting, along with reappointed members Richard Gollott of Harrison County, representing commercial seafood processors and Shelby Drummond of Jackson County, representing recreational fishermen. Their terms will run July 1, 2008 to June 30, 2012. Also on the commission are Jimmy Taylor of Harrison County, representing charter boat operators and Dr. Vernon Asper of Hancock County, representing nonprofit environmental organizations. Also at the meeting, CMR members re-elected Dr. Vernon Asper as chairman and Richard Gollott as vice chairman.

The CMR is composed of five members appointed by the Governor for four-year terms.

Newly appointed commissioner Steve Bosarge is a third-generation commercial fisherman who was born and raised on the Mississippi Gulf Coast. He is the owner of Bosarge Boats Inc. and B & B Boats Inc. He is a member of the Shrimp Advisory Panel for the Gulf of Mexico Fisheries Management Council and member of the Mississippi Department of Marine Resources Blue Crab Task Force. Bosarge also works with the National Marine Fisheries Service and the University of Mississippi on shrimp gear testing and volunteers his expertise to the Gulf and South Atlantic Fisheries Foundation on shrimp gear protocols. He has also cooperated with Johns Hopkins University in testing sonar equipment in the Gulf of Mexico and with dredging companies to relocate endangered marine life.

DMR signs educate public on crab trap theft

Theft of crabs and crab traps is often a heavy monetary blow to Mississippi fishermen who make their living legally providing the public with delicious blue crabs. Theft can also be disheartening to the recreational crabber who looks forward to checking his or her crab traps after a long day at work or school.

With this in mind, the DMR Shrimp and Crab Bureau has been actively notifying boaters that crab trap theft will not be tolerated and is placing specially made signs at boat ramps along the coast to remind the public that it is illegal to disturb another person's crab trap. First offenders can be fined up to \$500 for taking crab traps or pots or removing crabs from traps or pots not specifically licensed or permitted to them.

"So far, we have placed a total of 37 signs at various public and private boat launches throughout the three coastal counties of Mississippi," said DMR Fisheries Scientist Rick Burris. "We are hopeful this will help reduce the number of incidents we have."



DMR Fisheries Scientist Rick Burris places a sign at a private boat launch in Jackson County.

Coastal Cleanup nets 71 tons of trash

On Oct. 18, boaters and land-based volunteers scoured Mississippi's beaches, islands and waterways picking up marine debris at 55 designated cleanup sites during the 20th annual Mississippi Coastal Cleanup, part of the International Coastal Cleanup—the world's largest single-day volunteer effort to clean up the marine environment. In just three hours, more than 2,295 volunteers picked up 2,757 bags of trash along 132 miles of Coastal waterways in Hancock, Harrison and Jackson counties and the Barrier Islands during the Mississippi Coastal Cleanup. The cleanup is organized by the Mississippi Department of Marine Resources and Mississippi Marine Debris Task Force.

Volunteers collected 142,235 pounds of trash—that's more than 71 tons of marine debris—including six 30-yard dumpsters, a 2-ton trailer and five large rubbish trucks full of marine debris too large to fit in trash bags, such as the car door and chair at Hiller Park. Other items collected were: a vacuum, television, abandoned houseboat, a toilet tank, tires, lawn mower, shards of Native American pottery, two tents, a boat door, thousands of cigarette butts, an unused military silhouette target, a tennis shoe with oysters growing on it, a plastic children's swimming pool and two \$20 bills.

There was a cat entangled in fishing line reported at Davis Bayou in Ocean Springs that was released apparently unharmed. In addition, there were at least 10 reported animal entanglements, including four blue crabs in a derelict trap, a snake in netting, two birds, two turtles and a fish. The most peculiar item reported was a Styrofoam leg found at the beach near Rodenberg Avenue in Biloxi. Although rough seas and a small craft advisory prevented many of the 400 boaters signed up to clean the Barrier Islands from participating on cleanup day, more than 70 volunteers cleaned West Ship and East Ship islands, including the DMR Fisheries Dive Team, who cleaned East Ship and conducted an underwater cleanup of the pier at West Ship Island on Oct. 17.

The Mississippi Coastal Cleanup, which was originally scheduled for the third Saturday in September in conjunction with the International Coastal Cleanup (ICC), was postponed to Oct. 18 due to Hurricanes Gustav and Ike. During the ICC, hundreds of thousands of people across the world spend three hours combing the beaches and waterways to pick up trash that pollutes our waters, harms marine life, hampers tourism and poses health risks to beach-goers. During the 2007 ICC, about 378,000 volunteers worldwide removed debris from more than 33,000 miles of shoreline spanning 76 different nations. They collected 6 million pounds of debris.

About 60 percent of the debris found during the 2007 Mississippi Coastal Cleanup came from shoreline and recreational activities such as beach picnics, festivals, sporting events, and general littering. The source of most debris is human activity.

"Man-made debris in our marine waters poses serious threats to marine wildlife, navigation and our communities," said Lauren Thompson, state coordinator of the Mississippi Coastal Cleanup and public relations director for DMR. "Most of the trash in our waterways in Mississippi and worldwide comes from land-based activities."

The mission of the International Coastal Cleanup is to remove debris from shorelines, bayous, bays, rivers, waterways and beaches; collect valuable information on the amount and types of debris collected; educate people on the issue of marine debris; and use the data collected to affect positive change. Volunteers clean beaches and collect information on what they find using the International Coastal Cleanup Data Card, so that sources of marine debris can be targeted for education or pollution prevention campaigns. State coordinators mail the Data Cards to the Ocean Conservancy in Washington, D.C., where the data is tabulated. Over the years, data from the cleanups have been used to enact local, state, national and international legislation and agreements.



After the Mississippi cleanup, Bob Taylor and Rob Heffner, owners of High Cotton Grill, and staff joined forces with The Grate Deli & Grille, Nezaty's Cafe, Blow Fly Inn, Tug's Wharf, Lil Ray's and Reddick's Cafe to serve a free lunch of grilled chicken sandwiches, hamburgers, chips, fruit and cold drinks to more than 900 volunteers between 11 a.m. and 1 p.m. at Hiller Park in Biloxi. Sysco, Gulf Coast Produce and Coast Coca-Cola Bottling Co. also provided food and drink for the event. All volunteers filling out a Data Card received a meal ticket for the free lunch at Hiller Park and an eco-friendly tote bag from Chevron Pascagoula Refinery.

In Hancock County, the Office of Congressman Gene Taylor and the Bay St. Louis Rotary Club treated volunteers to a cookout held at the Washington Street Pier pavilion in Bay St. Louis, while BB's Snowballs provided snowballs. In Jackson County, about 500 volunteers received a free barbecue lunch, sides and drinks at the Estuarine Education Center at Mississippi Gulf Coast Community College in Gautier courtesy of Chevron Pascagoula Refinery and The Shed Barbeque & Blues Joint.

"More than 2,000 volunteers donated their time on a Saturday morning to come out and clean up the shoreline, islands and marine waters of South Mississippi, sharing in a worldwide effort to make our oceans and waterways safer and healthier for people and wildlife, and free from the hazards of marine debris," Thompson said. "This was a massive team effort and its success was due to the hard work of the Department of Marine Resources staff, Mississippi Marine Debris Task Force members, cleanup coordinators, zone captains, volunteers and the generosity of our sponsors."

Visit mscoastalcleanup.org

2008 STATISTICS

2,295 volunteers
142,235 pounds of debris
132 miles cleaned
2,757 bags filled
55 designated sites

Harrison County
 963 volunteers
 1,256 bags of trash
 17 sites

Hancock County
 207 volunteers
 358 bags of trash
 12 sites

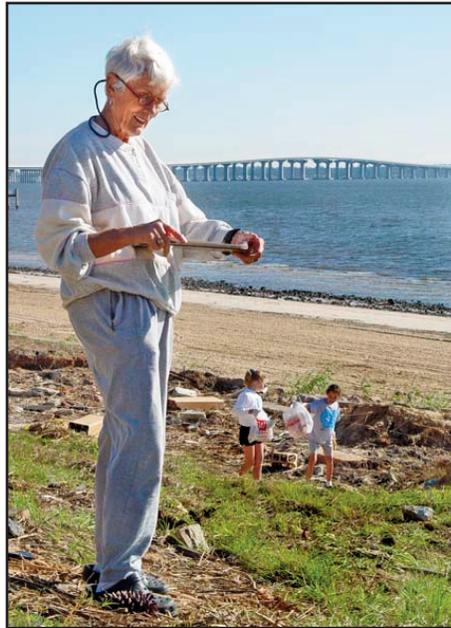
Jackson County
 1,056 volunteers
 1,076 bags of trash
 21 sites

Barrier Islands
 69 volunteers
 67 bags of trash
 5 sites

Peculiar Items Found
 Two \$20 bills
 Styrofoam leg
 Shards of Native American pottery
 Television
 Unused military silhouette target



Avery Reif shows a model boat to Anthony Gruber with CNATTU Naval technical training unit at Keesler. Avery found the boat while cleaning up the beach near Rodenberg Avenue in Biloxi.



Bay St. Louis resident Pat Davis manages a hardworking crew in front of Old Town. Photo credit: Ellis Anderson



Volunteers Phuong Pham and Mark Tran enjoy a free lunch at Hiller Park in Biloxi courtesy of Coast Flavors.

2008 SPONSORS

SEA TURTLE (\$5,000+)

Chevron Pascagoula Refinery; High Cotton Grill; Mississippi Department of Marine Resources

SHARK (\$2,500-\$4,999)

Beverage Association of Mississippi; Delta Sanitation of Mississippi, LLC; Hancock County Board of Supervisors; Matthews Brothers Inc., Ocean Conservancy; Ship Island Excursions; The Sun Herald; Waste Management

DOLPHIN (\$1,200-\$2,499)

Allen Beverages, Inc.; Coast Coca-Cola Bottling Co., Inc.; Coast Flavors; Coca-Cola Bottling Co., Consolidated; Domino's Pizza; Fisher Safety; Kimberly-Clark Corporation, Professional Division; Lamar Advertising of South Mississippi; Milner Rental Center; Mississippi Media; The Shed Barbeque & Blues Joint

COBIA (\$500-\$1,199)

Biloxi-D'Iberville Press; City of Biloxi; Island View Casino Resort; K99FM, Magic 93.7, 92.5 The Beat and News Radio 104.9; Mississippi Department of Transportation; Sam's Club; Sea Coast Echo; Sorg Printing; WLOX-TV 13

MULLET (\$100-\$499)

BB's Bar-B-Que & Snak Shak; Cellular South; Coast Electric; Desporte's Biloxi Paper Company; The Dive Shop; Hancock Medical Center

The Mississippi Coastal Cleanup is made possible by the Mississippi Marine Debris Task Force, which includes representatives from Ashman & Son Construction; Chevron Pascagoula Refinery; City of Gulfport; City of Moss Point; City of Ocean Springs; City of Pascagoula; Coastal Rivers; DMR Marine Patrol; Eco-Tours of South Mississippi; Grand Bay National Estuarine Research Reserve; Gulf Islands National Seashore; Gulfport Police Department; Hancock County Chamber of Commerce; Hard Rock Cafe; Harrison County Beautification; Harrison County Board of Supervisors; Harrison County Sand Beach Department; Harrison County Sheriff's Department; Jackson County Chamber of Commerce; Jackson County Solid Waste Department; Keep Mississippi Beautiful; Keesler Air Force Base; Mississippi Air National Guard CRTG-Gulfport; Mississippi-Alabama Sea Grant Consortium; Mississippi Department of Environmental Quality; Mississippi Department of Marine Resources; Mississippi Department of Rehabilitation Services; Mississippi Gulf Coast Community College; Mississippi State University Coastal Research & Extension Center; Naval Construction Battalion Center; Ocean Springs Chamber of Commerce; Office of Congressman Gene Taylor; Office of the Mississippi Secretary of State; Rotary International District 6840; Sea Coast Echo; U.S. Coast Guard; Waste Management.

Keeping the Reef: DMR research vessel sets off on maiden voyage



Shellfish Biological Program Coordinator Bradley Randall casts oysters in the Biloxi Bay.



The DMR Shellfish Bureau received its much anticipated new vessel, the Reef Keeper, in October 2008.



The Auburn University Shellfish Laboratory (AUSL) donated a surplus of aquaculturally grown juvenile and adult oysters.

Donated oysters deployed in Biloxi Bay

The Reef Keeper made its maiden voyage Nov. 6, 2008, from Point Cadet. The research vessel's first mission was to deploy approximately 23,000 aquaculturally grown oysters. The Auburn University Shellfish Laboratory (AUSL), located on Dauphin Island, Ala., produced a surplus of adult and juvenile oysters from the hatchery and donated the oysters to DMR. The oysters were broadcast into Biloxi Bay in front of the newly built Ocean Springs harbor fishing pier.

"This is a unique opportunity to use this cutting-edge technology (aquaculture) to create new and enhance our present oyster reefs," said Bradley Randall, Biological Program coordinator for DMR's Shellfish Bureau. "These reefs create important habitat that not only is great for fishing but also for improved water quality. We would like to thank Scott Rickard from the Auburn Shellfish Lab for these oysters and look forward to working with them in the future."



AUSL donated about 23,000 oysters to be deployed into the Biloxi Bay.

The oysters were raised in cages that were specially designed in Australia and transported in a pickup truck from Dauphin Island to Biloxi then put aboard the Reef Keeper for deployment. The same amount of oysters will be deployed in Alabama at a later date in hopes it will have a positive ecological and economic impact that will transcend state borders.

REEF KEEPER SPECS

Waterjet boat (no props)

—

32 feet long
Aluminum

—

Gulf package on bow
engine: Twin Cummins QSB 5.9M
305HP with twin disc gears

—

Electric trim tabs

—

300-gallon fuel capacity (diesel)
Equipped with radar, depth
sounder, VHF radio and weather
station used for water sampling to
set harvest times

—

Built by PSI/Wooldridge Boats Inc.
in Irvington, Ala.

—

Splash date was Oct. 8 at Gazzier
Shipyard in Bayou La Batre, Ala.

—

Federally funded with Emergency
Disaster Relief Program funds



DMR Shellfish Bureau staff use high-pressure hoses to spread oyster shells onto reefs near Pass Christian.

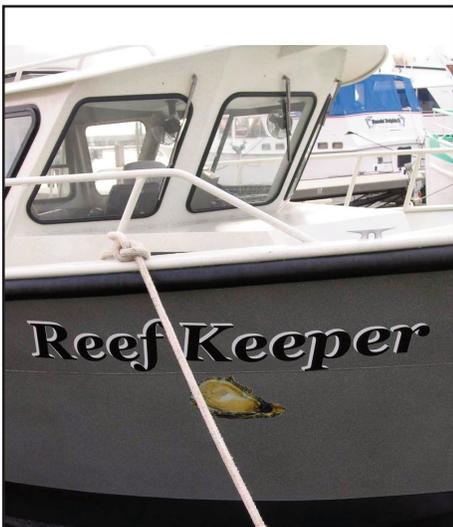
DMR rebuilds Mississippi oyster reefs

On Aug. 10, 2008, DMR began one of the largest cultch plants in Mississippi waters. DMR Shellfish Bureau staff, working with a private contractor, distributed over 62,000 cubic yards of cultch material (oyster shells and limestone), restoring 1,080 acres of oyster reefs—including Pass Christian Tonging, Pass Christian Dredging, Pass Marianne, Henderson Point and St. Joseph's reefs. The total cost of the fall cultch plants is over \$3 million, ranking it as one of Mississippi's largest cultch plants and one of the largest in the nation.

The fall cultch plants consist of spreading oyster shells and crushed limestone over the water bottom using high-pressure hoses, giving oyster larvae a clean surface on which to attach and grow. These cultch plants are intended to restore oyster productivity in South Mississippi through the continued rebuilding of existing reefs. In Mississippi waters, it usually takes an oyster 18 to 24 months to reach a marketable 3-inch size.

"This is a unique opportunity to use some different techniques in oyster reef restoration," said DMR Shellfish Bureau Biological Program Coordinator Bradley Randall. "We will be using the oyster shells to create new reefs adjacent to existing oyster reefs. The limestone will be spread at a much thinner ratio over live oyster reefs. This will allow us to beef up areas that have oysters but are more scarce in certain areas. This also allows us to enhance the reefs at a much broader scale. The limestone works well in that it creates nice single oysters that the harvesters love to catch because they do not have to cull the clusters."

The cultch plant is being funded through the National Oceanic and Atmospheric Administration's Mississippi Hurricane Katrina Disaster Restoration, Enhancement and Monitoring Program to Study the Recovery of Gulf Fisheries.



The DMR Shellfish Bureau's new waterjet boat, the Reef Keeper, splashed down on Oct. 8 at Gazzier Shipyard in Bayou La Batre.

Seminar series kicks off

On Nov. 7, DMR and partners kicked off a series of cooperative seminars aimed at increasing awareness of the programs, needs and opportunities relevant to marine research of Mississippi waters.

The next seminar will be Friday, Feb. 20, 9 a.m. to 11 a.m. at the Mississippi State University Coastal Research and Extension Center in Biloxi. Tentative topic is "Hypoxia in the Mississippi Sound."

"Managing Mississippi's Oyster Resource and Associated Environmental Monitoring" was the subject of the first seminar held Nov. 7. Keynote speaker Scott Gordon, DMR Shellfish Bureau director, shared information on the status of Mississippi's oyster reefs and how the fishery is managed. "Most people are probably not aware of everything that is involved in getting oysters 'from the reef to the teeth,'" Gordon says. "It is a year-round job that is important both to the economy of the Coast as well as for the continued protection of the consumers' health safety."

For more information about the seminars, contact DMR Shrimp & Crab Bureau Director Traci Floyd at 228-374-5000.

NERR Notes

Grand Bay National Estuarine Research Reserve



NERR program goes on the road to schools

DMR Public Affairs worked in partnership with the Grand Bay NERR from September through November 2008 to bring marine debris education into six schools along the Mississippi coast as a part of their standard school curriculum. Included in the On the Road Program was a presentation about marine debris issues and coastal stewardship. Some 1,310 students and 63 teachers were engaged in learning about stewardship of the coast and gained deeper appreciation of coastal resources.

NERR Manager David Ruple said, "Students were very enthusiastic about Mr. Ranew's visits to the classrooms. He connected well with them on their level of understanding about their responsibility of being good caretakers of the beautiful coastal environments and its animals. Principals are already booking reservations for the On the Road Programs on their calendars for next year."

The success of the program will be determined by the follow-up of the teachers and the Grand Bay NERR staff working as a team to emphasize stewardship concepts in future field trips to the new Grand Bay Coastal Resources Center. Teachers are excited about next year's focus on biodiversity and coastal habitats. Students are sure to benefit from the knowledge given on these important issues of coastal stewardship of the environments and the local plants and animals.



Rick Ranew of Grand Bay NERR instructs students at Beauvoir Elementary School in Biloxi about box turtles.



This is the main entrance to the new NERR Center.



The NERR Center will be one of the most 'green' buildings in Mississippi.

Coastal Resources Center construction nearing completion

Construction of the new Grand Bay Coastal Resources Center at the Grand Bay National Estuarine Research Reserve in east Jackson County is expected to be completed by late winter 2009. Interpretative exhibits will be installed in mid-spring.

Facility architecture and features will be like few others on the coast. The educational wing will feature vaulted ceilings, providing open air and views of the surrounding grasslands and forest. State-of-the-art research labs and dormitories will serve scientists from near and far, aiding their efforts to study Mississippi coastal resources. The center will also be one of the most sustainably green buildings in Mississippi and will feature many green strategies, including optimal energy performance (high-performance windows, external shading, high-efficiency heat pumps, high-efficiency lighting and occupancy sensors), low emitting materials (adhesives, carpet, paints) and the use of many recycled products (siding and insulation), to name a few.

Interpretive exhibits will focus on the theme "Living on the Edge - The Nature of Change." Exhibits will highlight coastal habitats, cultural heritage and stewardship of our coastal resources.

Look for a late spring, summer public opening of the Grand Bay Coastal Resources Center.

DMR wins two Gulf Guardian Awards

The Environmental Protection Agency Gulf of Mexico Program presented the DMR with first- and second-place Gulf Guardian Awards in the government category at a ceremony held Oct. 29 in New Orleans. All five Gulf states participated in the award application process. The first-place award (see photo at right) was given to the Shrimp and Crab Bureau for the Mississippi Derelict Crab Trap Removal Program, and the second-place award was presented to the Office of Coastal Management and Planning for the Coastal Development Strategies (Smart Growth) Conference.



From left: Research Scientist for the Gulf Coast Research Lab Darcie Graham, DMR Shrimp and Crab Bureau Biologist Bill Richardson, DMR Executive Director Dr. William Walker, GCRL Center for Fisheries Research and Development Director Dr. Harriet Perry, Gulf of Mexico Program Director Bryon Griffith, Environmental Protection Agency Region 4 Administrator Jimmy Palmer and EPA Region 6 Administrator Richard Greene.



From left: Mississippi Department of Environmental Quality Office of Pollution Control Administrator Richard Ingram, DMR Office of Coastal Management and Planning Staff Officer Susan Perkins, DMR Office of Coastal Management and Planning Project Officer Leslie Young, DMR Executive Director Dr. William Walker, Environmental Protection Agency (EPA) Region 4 Administrator Jimmy Palmer, Gulf of Mexico Program Director Bryon Griffith and EPA Region 6 Administrator Richard Greene.

Back row, from left: DMR Intern Coordinator Dr. Lena Melton, Tekeyla Jackson, Sabrina Miller, Alesha Mason, Michelle Cochran, Dr. Jason Pugh, Vice President of MS Gulf Coast Community College, Jackson County Campus.
Front row, from left: Tawana Steward, Alice Cooper, Darryl Balius.

Interns learn the ropes at DMR

Since 2004, a select group of Mississippi Gulf Coast Community College (MGCCC) students have been matched with DMR professionals as interns to work on a wide variety of programs and projects, resulting in an increased awareness and understanding of all facets of the DMR.

It is the DMR's goal to assist in the development of personal, professional and academic competencies of the interns. This on-the-job experience provides interns with valuable insight into the possibilities of furthering their education and for career development, and at the same time provides professional development for DMR mentors.

In fall 2008, the DMR expanded the Intern Program to include at least six positions at USM's Gulf Coast Research Laboratory (GCRL) and one for the DMR Lyman Fish Hatchery. Dr. Lena Melton, MGCCC intern coordinator, and Sandra Moore, DMR Human Resources assistant, closely monitor the program throughout the semester. This fall, DMR mentors were David Rose at the Lyman Fish Hatchery, Debbie Belk in the Finfish Bureau, Traci Floyd in the Shrimp & Crab Bureau, Ruth Posadas in the Seafood Technology Bureau, Diane Roth in the Information Technology Bureau, Jennifer Buchanan at the GNDNERR and Tina Shumate in the Coastal Management and Planning Office.



Mentors at GCRL are Dr. Sheila Brown, Sam Clardy, Dr. S. Mulkana, Harriet Perry and Dr. Eric Saillant.

Interns work with mentors once a week for at least three hours. They keep a journal summarizing all the work performed and are required to write an abstract and protocol of their semester's work. A final meeting of mentors and interns is held at the end of the semester at which the interns make final presentations. The mentors then rate the performance of the interns. Successful completion by the intern of all time and work requirements results in a letter grade above their final grade in their coursework.

Seafood Safety Corner



Winter has arrived and the Seafood Technology Bureau (STB) is conducting its third-quarter inspections of seafood facilities. Inspections are conducted on a quarterly basis to verify that each seafood facility meets proper sanitary conditions and HACCP guidelines.

Once a year, the Food and Drug Administration (FDA) evaluates the STB's inspection program. During the evaluation process, a random number of certified seafood facilities are selected by both agencies to be inspected. At the same time, FDA reviews the STB's inspection records. The purpose of record verification is to ensure that all criteria of the National Shellfish Sanitation Program (NSSP) are followed and no critical violations occur. The STB is proud to announce that the Mississippi Shellfish Sanitation Program has passed FDA's evaluation inspections.

Mississippi's oyster season opened Sept. 25. Eighteen boats worked the reefs in Pass Christian and harvested a total of 421 sacks, while 13 boats worked in Bayou Caddy and harvested a total of 370 sacks. As of Nov. 21, the number of boats working in Pass Christian increased to 126 with a total number of 2,944 sacks harvested, while 30 boats worked in Bayou Caddy and harvested a total of 739 sacks.

Oysters are a delicacy among the varieties of seafood found along the Mississippi Gulf Coast. Since oysters are one of the few foods that are consumed raw, they are subject to contamination. Therefore certain precautions must be taken when handling this delicate product. *Vibrio vulnificus* is a naturally occurring bacterium that dwells in the marine waters along the Gulf Coast. In Mississippi, oyster harvesters have four hours to sell their commercial catch (yellow-tagged sacks) to a certified seafood dealer after the checkout time listed on their trip ticket. Harvesters are not allowed to store commercially harvested oysters in their homes with intent to sell the next day unless they are certified seafood dealers. Only certified seafood dealers are permitted to pur-



Jeff Davis



Sheriff Mike Byrd of Jackson County visited Ruth Posadas and Traci Floyd one morning and took some seafood safety information and cookbooks with him.

chase, store and transport oysters across state lines. However, both dredgers and tongers can bring home three sacks (green-tagged sacks) per week for their own consumption. Members of the STB would like to remind anyone wanting to become a Mississippi certified shellfish dealer to please contact the STB staff for more information at 228-374-5000.

In addition to conducting inspections, the members of the STB also participated in several public outreach events promoting seafood safety, *Vibrio* education, local seafood consumption and environmental stewardship. Some of the events the bureau participated in during the month of October were the Mississippi Power Company Employees' Health Fair (Oct. 7), the Gautier Mullet Festival (Oct. 18-19), the Jackson County Fair (Oct. 20-26) and Colmer Middle School's Health Fair (Oct. 31). Events such as these are the perfect opportunity to increase awareness, disseminate information and promote education to the general public. Several seafood safety packets with brochures, flyers and fact sheets discussing *Vibrio vulnificus* were distributed to people of all ages. Many immuno-compromised individuals are unaware of the risks in eating raw oysters. Fish posters and brochures of plant and animal invasive species were also distributed. Fostering environmental stewardship through education is a major approach to promoting environmental awareness.

New trawl door limit promotes fuel efficiency

In an attempt to improve fuel efficiency for shrimpers, the Commission on Marine Resources approved a new size limit for shrimp trawl doors in the state of Mississippi at its Sept. 16 meeting in Biloxi. The new rule went into effect Sept. 22.

The update changes trawl door size maximum measurements to 2,448 square inches; however, if the trawl door is not configured in the standard rectangle measuring 6 feet in length and 34 inches in height, the total area of the trawl door must be verified, approved, documented and tagged by the DMR Shrimp and Crab Bureau.

"This rule change is one of the ways the DMR is helping to address the high fuel costs experienced by commercial fishermen," said Shrimp and Crab Bureau Fisheries Scientist Bill Richardson. "These new door designs can potentially reduce fuel consumption and wear on the fishermen's equipment by decreasing drag."



MARINE PATROL CITATIONS

JULY-OCTOBER 2008

- Shrimp-3
- Crab-16
- Oyster-30
- Live Bait-0
- Net Fish-0
- Fishing-124
- Boat and Water Safety-146
- Marine Litter-2
- Miscellaneous-33

TOTAL-354



Take a Bow

Recognizing employees' commitment to excellence

Thompson recognized as PR Senior Practitioner

DMR Public Relations Director Lauren Thompson was recognized as a Senior Practitioner during the Southern Public Relations Federation's (SPRF) annual conference July 27-29 in Sandestin, Fla. SPRF is a network of more than 1,300 public relations professionals from Alabama, North Florida, Louisiana and Mississippi who share a common interest in the public relations profession.

Thompson joined DMR as public relations director in June 2000 and served as 2008 community service chair for the Public Relations Association of Mississippi, Mississippi Beach Chapter. SPRF members who are designated as Senior Practitioners are recognized as veteran public relations professionals with high ethical standing.



DMR Public Relations Director Lauren Thompson, left, receives Senior Practitioner honor from Southern Public Relations Federation President Sabrina McLaughlin.



Ali Rupp (center) of the Coastal Preserves Program discusses the importance of habitat protection to fourth-grade students at D'Iberville Elementary.

Coastal show and tell

The Coastal Preserves Program has reached out to groups of all ages to increase public awareness and interest in the values and functions of coastal wetlands, their habitats and the ecosystems they are dependent upon. Over several months, presentations have been given to audiences of elementary and junior high students, adults and government officials. The topics range from coastal wetland systems, rare plant and animal species, coastal restoration, as well as educating about the Coastal Preserves Program itself. Coastal Preserves would like to thank DMR Public Affairs for providing additional educational resources for presentation attendees, as well as a special thanks to Lynn McCoy of the Ward Bayou Wildlife Management Area for allowing them to exhibit native reptiles that are dependent on the health of the coast's wetland and marine ecosystems.

Happy Anniversary!

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

Scott Anderson	10/1/01	William Freeman	7/1/05	Sally Richards	8/18/03
Don Baxter	9/1/00	Scott Gordon	7/1/85	Bill Richardson	11/1/98
Shelly Becker	12/1/07	John Grimsley	7/1/97	Joe Roach	9/15/99
Mike Brainard	12/17/90	Paul Grote	10/1/00	Beth Roberts	11/1/99
Brittany Breazeale	12/13/04	Jana Guynes	8/6/2007	Stephanie Roberts	8/3/06
Erik Broussard	8/2/08	Brandon Hall	12/1/98	David Rose	7/1/91
Buck Buchanan	8/1/86	Marian Hanisko	7/1/03	Dave Ruple	10/1/02
Tamra Carrell	11/3/04	Matt Hill	9/9/00	Ali Rupp	12/29/05
Scott Chatham	11/1/00	Michaela Hill	7/15/99	Mario Sapet	12/22/03
Greg Christodoulou	9/15/06	Irvin Jackson	10/12/98	Tina Shumate	9/1/2000
Lauren Clark	10/1/07	Tommy Jennings	11/1/00	Teresa Stadler	10/18/04
Ron Cole	9/7/06	Joe Jewell	12/8/97	Tom Strange	11/19/07
Richard Cooley	8/15/01	Tina Johnson	11/1/97	Barbara Synowicz	10/1/99
Kerwin Cuevas	12/2/96	Marty Jones	8/25/97	Anthony Tremonte	12/19/05
Curtis Culpepper	12/19/05	Ron Jordan	10/15/01	Robin Vaughn	12/23/06
Mai Dang	12/22/07	Matt Kasovich	12/19/05	Kara Vesa	11/1/96
Dorothy Daniel	7/31/90	John Ladner	12/29/05	Charles Vyles	7/7/92
James Davis	8/13/07	Patrick Levine	10/1/01	Linda Wakefield	9/1/01
Kimberly Denz	11/8/04	Roy Lipscomb	12/20/06	Jacob Walker	10/9/06
Wade Dominey	12/29/05	Iris Lofland	12/1/88	Mike Walker	12/1/97
Jack Ewing	10/1/01	Chris Mask	11/1/00	Bill Walker	7/8/02
Traci Floyd	12/1/97	Alan McArthur	9/1/00	Christine Walters	11/17/03
		Jay McIlwain	11/19/07	Al Warburton	9/15/99
		Kenny Melvin	9/1/98	John White	9/1/03
		Sandra Moore	8/1/07	Glen Wieck	10/1/01
		Crystal Morgan	12/18/07	Kyle Wilkerson	11/1/00
		Corky Perret	7/25/96	Travis Williams	8/6/07
		Erick Porche	9/15/99	Christina Young	7/1/05
		Rebekah Ray	8/20/07	Leslie Young	10/1/02
		Kay Rexroad	9/18/06	Joe Ziegler	7/21/97



Mississippi Department
of Marine Resources
1141 Bayview Avenue
Biloxi, Mississippi 39530

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DMR 2009 Marine Information Calendars Are Here! Stop by DMR office Mon.-Fri, 8 a.m. - 5 p.m.

DMR Calendar

January 20

Mississippi Commission on Marine Resources meeting, Mississippi State University Coastal Research and Extension Center, 1815 Popp's Ferry Road, Biloxi, 9 a.m.

February 17

Mississippi Commission on Marine Resources meeting, Mississippi State University Coastal Research and Extension Center, 1815 Popp's Ferry Road, Biloxi, 9 a.m.

March 17

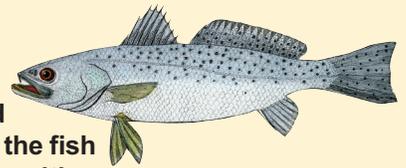
Mississippi Commission on Marine Resources meeting, Mississippi State University Coastal Research and Extension Center, 1815 Popp's Ferry Road, Biloxi, 9 a.m.

April 4

Celebrate the Gulf Marine Education Festival, War Memorial Park, Pass Christian, 10 a.m. - 4 p.m.

Doc's Fishing Tip

Trout fishermen in the know will focus their efforts in area bays, bayous and backwaters as passing cold fronts coax the fish into these deeper waters. Slow trolling with a live bull minnow (Cocahoe) is one reliable way to make the winter-time trout connection, but look-alike plastic jigs and plugs will also catch their share of the fish! - Dr. Fred Deegen



Shrimp and Artichoke Heart Linguine

- 1 lb. linguine
- 1-1/2 tbsp. olive oil
- 1/2 cup red onion (minced)
- 3/4 cup white wine
- 1 lb. medium Mississippi Gulf shrimp
- 1-1/2 cups heavy cream
- 12 oz. marinated artichoke hearts, drained
- 1-1/2 oz. sundried tomatoes, chopped
- 3 tbsp. fresh lemon juice



Cook dry linguine according to package. Saute red onion in olive oil and let cook for 1 minute. Add white wine and lemon juice and simmer mixture until it coats the back of a spoon. Add shrimp and cook until done. Add cream, artichoke hearts, mushrooms and sundried tomatoes. Season with garlic and Italian seasoning to taste. Let simmer for another 2-3 minutes. Serve over linguine and garnish with freshly grated Parmesan cheese. Serves 6-8.

Recipe by Jan Boyd, DMR Coastal Ecology

Reprinted from Get Hooked on Mississippi Seafood Shrimp Recipe Book