



GULF OF MEXICO NEWS

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September 2012



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NOAA Gulf of Mexico News

New NOAA website offers tips to prepare for coastal flooding

July 2, 2012



Views of inundated areas of New Orleans following breaking of the levees surrounding the city as the result of storm surge from Hurricane Katrina (2005).

[Download here](#). (Credit: NOAA)

[NOAA's Office of Coast Survey](#) has announced a new website — www.stormsurge.noaa.gov — designed to provide vital information to help protect communities, people and property from the devastation of coastal flooding. Coastal flooding is often the greatest threat to life and property during and after storms. Floods damage roads and bridges, destroy homes and businesses, and cause injuries and death to those in harm's way. These floods are caused by storm surge — the rise in water level caused by a severe storm's wind, waves, and pressure. Storm surge can flood large coastal areas, reaching cities and communities miles inland.

“NOAA's meteorologists and oceanographers observe coastal conditions and predict when

storm surge may occur,” said Jesse Feyen, a storm surge expert with NOAA's Office of Coast Survey. “This website gives people important information to help them prepare for storm surge. With this advanced understanding and knowledge, people will know how to respond to coastal flooding from a storm.”

The [new website](#) is one of several that NOAA provides to promote public safety when severe weather strikes. Others include [NOAA QuickLook](#) – which provides current water levels along the coasts during severe storms including hurricanes, as well as NOAA's all-hazards website, [NOAA Watch](#). NOAA's Office of Coast Survey has been the nation's nautical chartmaker for two centuries. Coast Survey provides nautical charts, hydrographic data, navigational assistance, and coastal observations to help position America for the future. NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Join us on [Facebook](#), [Twitter](#) and our other [social media channels](#).

NOAA scientists: Midwest drought brings fourth smallest Gulf of Mexico 'Dead Zone' since 1985

July 27, 2012

NOAA-supported scientists have found the size of this year's Gulf of Mexico oxygen-free 'dead zone' to be the fourth smallest since mapping of the annual hypoxic, or oxygen-free area began in 1985. Measuring approximately 2,889 square miles, the 2012 area is slightly larger than Delaware. The survey also found a patchy distribution of hypoxia across the Gulf differing from any previously recorded. This is in stark contrast to last year, when flood conditions, carrying large amounts of nutrients, resulted in a dead zone measuring 6,770 square miles, an area of the state of New Jersey. The last time the dead zone was this small was in 2000 when it measured 1,696 square miles, an area slightly smaller than Delaware.

“The smaller area was expected because of drought conditions and the fact that nutrient output into the Gulf this spring approached near the 80-year record low,” said Nancy Rabalais, Ph.D., executive director of the Louisiana Universities Marine Consortium (LUMCON) who led the survey cruise. “What wasn’t expected was how the scattered distribution of hypoxia areas differed from any others documented in the past. Confirmed, however, is the strong relationship between the size of the hypoxic zone and the amount of fresh water and nutrients carried to the Gulf by the Mississippi River.”

The smallest recorded dead zone to date measured 15 square miles in 1988. The largest dead zone, also called a hypoxic zone, measured to date occurred in 2002 encompassing more than 8,400 square miles. The average size of the dead zone over the past five years has been 5,684 square miles, more than twice the 1,900 square mile goal set by the Gulf of Mexico/Mississippi River Watershed Nutrient Task Force.

Hypoxia is fueled by nutrient runoff from agricultural and other human activities in the Mississippi River watershed, which stimulates an overgrowth of algae that sinks, decomposes and consumes most of the life-giving oxygen supply in bottom waters.

The hypoxic zone off the coast of Louisiana and Texas forms each summer and threatens valuable commercial and recreational Gulf fisheries. In 2010, the dockside value of commercial fisheries in the Gulf was \$639 million. More than 4.6 million recreational fishers took an estimated 22 million fishing trips in 2010, further contributing to the Gulf economy."

Earlier this summer, NOAA-sponsored forecast models developed by Donald Scavia, Ph.D., of the University of Michigan, and R. Eugene Turner, Ph.D. of the Louisiana State University had issued conflicting forecasts for the hypoxic zone, ranging from a small 1,197 square miles to a moderate 6,213 square miles. The forecast of the larger zone hinged on the possibility that organic matter stored in Gulf sediments from large algal blooms during the 2011 flood would act as an additional carbon source for the development of hypoxia this year. The small size of this year’s hypoxic zone suggests only a limited role for this “carryover effect” in hypoxia formation under the current low flow conditions.

Prior to the LUMCON cruise, two surveys in June, one led by a NOAA-supported Texas A&M team and another by NOAA’s Southeast Fisheries monitoring and assessment program’s summer survey, found very little hypoxia in the Gulf. Texas A&M will be conducting a follow-up cruise in mid-August to provide an update on the size of the dead zone.

NOAA has been funding monitoring and research for the dead zone in the Gulf of Mexico since 1985 and currently oversees the two national hypoxia research programs authorized by the Harmful Algal Bloom and Hypoxia Research and Control Act.

Florida Panhandle Shipwreck Trail Created with CZMA Support

The new [Florida Panhandle Shipwreck Trail](#) is a series of 12 shipwrecks located offshore of Pensacola, Destin, Panama City, and Port St. Joe, Florida. The trail was developed by the Florida Department of State’s Underwater Archaeology Team, in partnership with Panhandle waterfront communities, to stimulate tourism and educate residents and visitors about Florida’s history. The 12 shipwrecks were chosen by a consensus of local dive operators based on popular demand, historical context, and ecological diversity. The trail’s interactive website features underwater videos of each shipwreck, the locations of local dive shops, and the current marine weather forecast. Trail development was supported by the Florida Coastal Management Program with Coastal Zone Management Act (CZMA) funding from the Office of Ocean and Coastal Resource Management.

NOAA Fisheries Service, MASGC award grants for marine mammal research, app development

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) in partnership with the Mississippi-Alabama Sea Grant Consortium (MASGC) has awarded two grants in support of bottlenose dolphin conservation and marine mammal stranding response in the Gulf of Mexico and Southern Atlantic regions.

Geo-Marine, Inc. in Plano, Texas, partnered with Applied Research Associates in Vicksburg, Miss., and Chicago Zoological Society in Chicago were awarded the competitive grants. Geo-Marine, Inc. and Applied Research Associates received a \$53,000 grant, which includes \$13,000 in matching funds, to raise awareness of the importance of protecting marine mammals in the Southeast United States through the creation and distribution of smartphone applications (apps).

Project Leader Amy Whitt and Jennifer Laliberté of Geo-Marine and Steven Antrim and Charles Cramer of Applied Research Associates are responsible for creating a marine mammal stranding app and a marine mammal identification/viewing app. Marine mammals or sea turtles are stranded when they are found not capable of returning to their habitat because of sickness, death, injury or some other obstacle. The team will create apps for identifying and reporting stranded sea turtles as well.

"The popularity of smartphone apps and the ease with which they can store, provide and report information make them an ideal avenue for reporting strandings of marine mammals," Whitt said. "The app will allow the user to easily submit the essential stranding details to NOAA's Stranding Network.

The apps will identify species of mammals or turtles by asking a series of questions, and according to the answers, it will give directions on how to assist the stranded animal. The user-friendly apps will be available to the general public.

"Outdoor enthusiasts are always looking for something they can use in the field," said LaDon Swann, director of MASGC. "Development of a marine animal stranding and identification application will make the task of reporting strandings much easier."

Katherine McHugh, Randall Wells and Brian Balmer, all of the Chicago Zoological Society, along with Lars Bejder of Murdoch University in Australia and David Lusseau of the University of Aberdeen in the United Kingdom, received a grant for dolphin conservation research in Sarasota Bay, Fla. The \$111,000 grant, along with more than \$250,000 in matching funds from the Chicago Zoological Society, will support a two-year project that aims to find out if and how human interactions with bottlenose dolphins contribute to the dolphins searching for food in an unnatural manner. The project will also describe and classify potential sources of food that humans directly or indirectly provide to dolphins and bring public attention to the harmful effects of interacting with dolphins.

The dolphins being studied are in a natural laboratory setting, said McHugh. The background of each dolphin, including age, sex, ranging and social patterns, behavior and health, is known and thoroughly documented from long-term studies initiated by the Sarasota Dolphin Research Program in 1970. This previous knowledge makes it easier to detect and classify human-affected behaviors.

"Bottlenose dolphins are the primary species at risk from [human] interactions because they are commonly found in the coastal areas where humans engage in water-related commercial and recreational activities," McHugh said. "Because dolphins may intentionally or inadvertently receive food from humans during these interactions, dolphins lose their wariness of boats and human activities and become more likely to engage unnatural foraging behaviors again in the future."

Human contact with dolphins can be harmful in more ways than creating unnatural feeding habits. The dolphins can become tangled in or ingest fishing gear and can be seriously hurt or killed by boating accidents. The more dolphins are exposed to humans and boats, especially when they are rewarded with food from the humans, the more likely they are to approach again.

“Human interactions with dolphins can be significant for the fishing and nature tourism industries,” Swann said. “A better understanding of how to minimize negative human-dolphin interactions will be good for dolphins, fishermen and any catch-and-release fishing programs.”

NOAA provides easy access to historical hurricane tracks

Understanding historical hurricane landfalls is important in preparing for current storms

August 13, 2012

Seeing where hurricanes have hit and how often is one of the best ways to bring home a powerful hurricane preparedness message. A NOAA website, Historical Hurricane Tracks, lets users insert their zip code and see a map that contains more than 150 years of Atlantic hurricane tracking data. The site also contains global hurricane data from as far back as 1842.

“Knowing more about local hurricane history can help communities better understand their vulnerabilities so they can take steps to be more resilient if a future hurricane strikes,” says David Eslinger, Ph.D., an oceanographer with the NOAA Coastal Services Center and one of the site’s developers.

The Historical Hurricane Tracks website, <http://www.csc.noaa.gov/hurricanes>, includes tropical cyclone data and information on coastal county hurricane strike data through 2011 while also providing links to detailed reports on the life history and effects of U.S. tropical cyclones since 1958. In addition to the tracks of storms, the site provides insight to the increasing numbers of the U.S. citizens and infrastructure at risk for hurricanes, detailing population changes for U.S. coastal counties from 1900 to 2000. As the population continues to grow, so too has the number of storms with multi-billion dollars in damages to coastal infrastructure and property. Seven of the top 10 costliest hurricanes in U.S. history have occurred in the past eight years, including seventh ranked Irene last August with \$15.8 billion in damages.

The site’s popularity with the public was evident as Hurricane Irene bore down on the U.S. East Coast. Tens of thousands of people used Historical Hurricane Tracks to compare the National Hurricane Center’s projected path of Irene with past storms. User traffic peaked at over 19,000 visits on August 26, the same day Irene swirled off the North Carolina coast heading towards New York City while saturating the East Coast and New England and leaving millions without power.

Increasing numbers of global extreme storm events has added another dimension to the site as the developers, in response to user requests, have added non-U.S. data. The global tropical cyclone data feature were collected from agencies in every ocean basin and processed through the International Best Track Archive for Climate Stewardship (IBTrACS), an effort managed by NOAA’s National Climatic Data Center.

Developed by the NOAA Coastal Services Center in partnership with NOAA’s National Hurricane Center and the agency’s National Climatic Data Center, Historical Hurricane Tracks allows users to search by place name, storm name or year, or latitude and longitude points. With the search results, users can generate a map showing the track of the storm or storms accompanied by a table of related information.

Now Available: National Elevation Inventory

The [U.S. Interagency Elevation Inventory](#)—a comprehensive listing of known high-accuracy topographic and bathymetric data for the U.S. and its territories—is now [available](#) via NOAA’s Digital Coast. The inventory displays light detection and ranging (LIDAR), interferometric synthetic aperture radar, and bathymetric data. Bathymetric data includes NOAA hydrographic surveys, multibeam data, and bathymetric LIDAR. Information provided for each elevation data set includes attributes such as vertical accuracy, point spacing, date of collection, and often a direct link to download data. This project is a collaborative effort between NOAA and the U.S. Geological Survey, with contributions from the Federal Emergency Management Agency.

Emergency Remote Sensing Imagery Collection in Louisiana

Drought conditions have lowered water levels on the Mississippi River and are causing hazards to navigation. By request of the Louisiana Department of Transportation and Development through NOAA’s Gulf Coast regional navigation manager, staff from the National Geodetic Survey recently collected [imagery](#) from aboard NOAA’s King Air aircraft of the area around the Port of Lake Providence in Louisiana. Grain shipments have been hindered by the low water levels between the Port of Lake Providence and the Port of Greater Baton Rouge. It is expected to take approximately 20 days to clear the channel, and as many as 24 million bushels of soybeans and corn are expected to be shipped by barges if the channel is dredged.

NOAA Releases New Climate Change Impacts Guide for Coastal Management Partners

The Office of Ocean and Coastal Resource Management (OCRM) has released the Voluntary [Step-by-Step Guide for Considering Potential Climate Change Effects on Coastal and Estuarine Land Conservation Projects](#). The guide is part of NOAA’s multi-phased effort to more systematically consider climate change impacts in the implementation of programmatic activities including restoration, land acquisition, and facilities development. This new document addresses recommendations in the Programmatic Framework for Considering Climate Change Impacts in Coastal Habitat Restoration, Land Acquisition, and Facility Development Investments, developed and released by OCRM and National Marine Fisheries Service Office of Habitat Conservation in 2010. The guide provides a clear approach for coastal management partners to consider how climate impacts might affect conservation projects and how to incorporate climate change consideration into planning processes. Though it focuses on the implementation of OCRM’s Coastal and Estuarine Land Conservation Program, the methodology described has broad application for conservation planning and land acquisition in a changing climate.

Monthly Product E-Newsletter Reaches Two Coastal Audiences

[Digital Coast Connections](#), a monthly e-newsletter that debuted August 17, keeps coastal officials, managers, and other constituents informed about new data, imagery, tools, and trainings from the Digital Coast Partnership and NOAA Coastal Services Center. Subscriptions can be obtained [online](#).

NOAA, Partners to Document Civil War-era Warship Sunk in Gulf of Mexico Battle

A team of archaeologists and technicians assembled by NOAA will begin today to create a three-dimensional sonar map to document the storm-exposed remains of the USS *Hatteras*, the only Union warship sunk in combat in the Gulf of Mexico during the Civil War.

The *Hatteras*, an iron-hulled steamship the U.S. Navy converted into a gunboat, was lost in a battle with the famous Confederate commerce raider CSS *Alabama* on Jan. 11, 1863, about 20 miles off Galveston, Texas. Largely forgotten, the battle was one of the skirmishes that saw the key southern port of Galveston change hands twice and remain one of the last bastions of the Confederacy.



This 19th Century print depicts the sinking of USS *Hatteras* by CSS *Alabama*, off Galveston, Texas, January 11, 1863. (Credit: U.S. Naval Historical Center)

Today, the wreck of the *Hatteras* is largely intact, resting 57 feet underwater in sand and silt. Recent hurricanes and storms have removed some of the sediment and sand that once encased the vessel like a time capsule. Shifting sands may once again rebury the *Hatteras*, and so within a short window of opportunity, the team is assembling to capture all the data it can. Working from a NOAA research vessel and two private craft, the divers plan to deploy high-resolution mapping sonar to create 3-D photomosaics of the *Hatteras* for research, education, and outreach purposes during the two-day mission.

"With support from the private sector and volunteers, and cooperation with federal and state agencies, this project intends to capture

a detailed sonar map of the wreck," said James Delgado, director of maritime heritage for NOAA's Office of National Marine Sanctuaries. "This will create a detailed visual representation of a long buried wreck in murky waters that we can share with the public while also using it to plan for USS *Hatteras*' long term protection as an archaeological site and war grave."

Listed in the National Register of Historic Places, the *Hatteras* represents an integral part of the story of the Civil War on the Texas coast. In 1863, the *Hatteras* was part of the West Gulf Blockading Squadron commanded by Union Rear Admiral David Farragut. The squadron was part of the U.S. Navy's efforts to block the passage of goods, supplies, and arms to and from the Confederacy on the Atlantic and Gulf coasts.

The USS *Hatteras* is located in federal waters administered by the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE), but the ship itself is administered by the Navy. The vessel is protected by the Sunken Military Craft Act as a war grave—two of *Hatteras* crew went down with the ship, and their bodies never were recovered. They are presumed to lie inside the buried hull.

BOEM, working with private cultural resource management firms and the state of Texas, has documented sections of the vessel that protrude above the seafloor. Previously acquired data illustrates the changing nature of the wreck site, and the current level of site exposure presents an exciting opportunity to document the site. "This project will provide an unparalleled view of the wreck site," said NOAA's

Delgado, "giving the public a unique 3-D look at the wreck from the safety of a computer screen, while also allowing us to document previously unexplored elements of the wreck."

Funding and support for the underwater archaeology project is being provided by the Edward E. and Marie L. Matthews Foundation, the OceanGate Foundation, and Teledyne BlueView. Participants include NOAA's Office of National Marine Sanctuaries, BOEM, BSEE, the Texas Historical Commission, the U.S. Navy's History and Heritage Command, Tesla Offshore LLC, and private citizens including noted Houston underwater photographer and journalist Jesse Cancelmo, whose reports of the sand moving off the wreck prompted the project. NOAA, which manages Flower Garden Banks National Marine Sanctuary off the Galveston coast, is providing vessel support. NOAA plans to present results from the mapping mission in Galveston next January during local events marking the 150th anniversary of the sinking of the *Hatteras*.

Storm QuickLook Issued for Hurricane Isaac

This week, the Center for Operational Oceanographic Products and Services (CO-OPS) issued the [Storm QuickLook product for Hurricane Isaac](#). This product provides an integrated display of near real-time oceanographic and meteorological observations at locations affected by the tropical cyclone. CO-OPS began issuing the Storm QuickLook product when then Tropical Storm Isaac was forecast to impact Puerto Rico and the U.S. Virgin Islands on August 22. The product continues to be updated every six hours, approximately one hour following the latest full National Hurricane Center public advisory, until all tropical storm and hurricane warnings are cancelled along the Gulf coast and water levels begin to return to normal.

NGS responds to Hurricane Isaac with "Round-the-Clock" attention

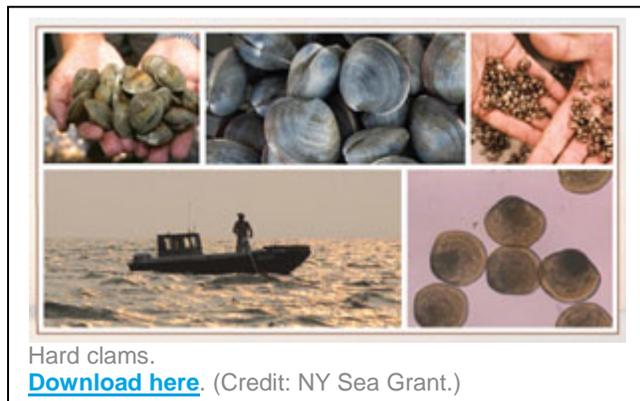
Within 24 hours of Hurricane Isaac departing the Gulf Coast region, the National Geodetic Survey (NGS) immediately began emergency response aerial surveys with two NOAA aircraft to ensure vital waterways, ports, and coastal infrastructure were safe for maritime commerce. Response flights commenced on Aug. 31, and continued daily until Sept. 3. Images from the surveys were made available on [NGS's storms website](#) within six hours of the completion of the first mission and were continuously processed and uploaded as they were collected through the weekend. The 22 flights taken over 60 flight hours to identify areas significantly impacted by the hurricane resulted in over 1,776 square miles surveyed and 3,895 images collected and analyzed.

Interactive kiosks introduce public to ocean and coastal information

Interactive kiosks are now helping the public understand how the Gulf of Mexico influences their lives and livelihoods and are helping scientists track changes in public understanding of major ocean issues. This week the Gulf of Mexico Coastal Ocean Observing System, a regional member of the U.S. Integrated Ocean Observing System, opened the first of six kiosks at the Institute for Marine Mammal Studies in Gulfport, Miss. These kiosks—which feature interactive games about the societal value of real-time ocean and coastal information—aid in the informal education of the public on the topics of water quality, nutrients and nutrient reduction, coastal community resilience, habitat conservation, and ecosystem integration and assessment. Additional kiosks will be installed at the Florida Aquarium, Texas State Aquarium, Audubon Aquarium of the Americas, Dauphin Island Estuarium, and Secrets of the Sea Marine Exploration Center and Aquarium. Combined, these facilities host millions of visitors annually. For more information, contact [Dave Easter](#).

NOAA announces grants to predict ocean acidification's effects on commercial fisheries

September 19, 2012



Hard clams.

[Download here.](#) (Credit: NY Sea Grant.)

As scientists continue to research ways in which the oceans are changing – and what these changes mean for fish populations, three new research projects will receive funding to examine the effects of ocean acidification on fisheries, and the coastal economies that depend upon them.

Ocean acidification occurs when the ocean absorbs carbon dioxide from the atmosphere, making it more acidic. Species as diverse as scallops and coral are vulnerable to ocean acidification, which can affect the growth of their

shells and skeletons. The grants, totaling nearly \$1.6 million over three years, will go to:

- Woods Hole Oceanographic Institution: \$682,000 to understand the connection between fluctuations of carbon dioxide levels and ocean scallop populations, harvest and economic conditions;
- The State University of New York at Stony Brook: \$533,000 to examine bay scallops and hard clams to determine acidification's effects on each species and identify the most vulnerable regions of estuaries; and
- The University of Washington: \$374,000 to study a large climate model with fish populations and economic models in order to predict ocean conditions and economic effects.

“Efforts to estimate the effect of ocean acidification on fishery populations will be valuable to our own work,” said Jonathan Hare, oceanography branch chief of NOAA’s Northeast Fisheries Science Center. “The goal is to incorporate the effects of ocean acidification into advice provided to the regional fishery management councils.”

The monetary value of scallops and clams both as seafood and for their ability to clean the water surrounding them is in the billions of dollars annually, according to a NOAA study. Knowing how increased acidity will affect shellfish and the communities who depend on them will help resource managers develop strategies to prepare for the future.

Valuable Pacific fish, such as sablefish, hake, and rockfish depend upon food sources vulnerable to more acidic seas. But scientists know less about how ocean acidification can affect the whole ecosystem surrounding these species. Some species may be more susceptible to ocean acidification than others, and these species might need closer management. Knowing where and when any effects might be felt is also important to developing fishery management plans.

NOAA works closely with regional fishery management councils as fishery management plans are developed, and then reviews, approves, and implements the plans. This research will help the councils plan for future effects of ocean acidification.

These awards are managed by the NOAA’s National Centers for Coastal Ocean Science and Ocean Acidification Program. These research awards complement ongoing work within NOAA that monitors acidification and determines its effects on marine populations.

NOAA announces \$4.5 million in environmental literacy grants to support K-12 science education and stewardship projects

September 19, 2012

NOAA announced today the results of its recent competitions for education grants to enhance science education activities in classrooms, aquariums, museums and other institutions across America. A total of \$4.5 million in grants from the [NOAA Office of Education](#)'s Environmental Literacy Grants Program will be awarded to support six unique, multi-year projects.

Projects are designed to increase stewardship and informed decision-making within a diverse pool of educators, students and the public to help promote environmental literacy. The selected projects will partner with NOAA's research laboratories, national marine sanctuaries, Climate Program Office, National Marine Fisheries Service, National Weather Service, Pacific Services Center, Coral Reef Conservation Program and Sea Grant.

"NOAA's Office of Education is proud to partner with such an impressive group of organizations," said Louisa Koch, director of education at NOAA. "It is only with the help of institutions such as these that we can successfully engage the public in science, technology, engineering, and mathematics (STEM) topics while supporting NOAA's mission of science, service, and stewardship'."

These multi-year projects will focus on engaging formal and informal educators along with K-12 students. Project activities include formal K-12 educator training programs to help teachers incorporate NOAA data and other resources into experiential learning activities; service learning programs for K-12 students that combine standards-based learning with stewardship activities in students' local communities; and professional development to enhance informal science educators' effectiveness in increasing public understanding of complex ocean topics.

Recipients include:

Angelo State University (San Angelo, Texas): "Earth system science for elementary teachers" — \$403,436

Florida Aquarium (Tampa, Fla.), **Monterey Bay Aquarium** (Monterey, Calif.) and **Alaska SeaLife Center** (Seward, Alaska): "Building Ocean Awareness Together: Interpreting challenging ocean issues" — \$898,490

The eight grants will be two to four years in duration and range in value from approximately \$232,000 to \$1,355,000. Awards were selected through peer-reviewed processes from a total of 104 applications received. NOAA's program offices and research laboratories work closely with applicants to ensure projects incorporate the agency's unique assets and current oceanic and atmospheric research in order to increase the awareness and utilization of NOAA's work in education projects.

Congress established NOAA's Environmental Literacy Grants Program in 2005. NOAA is planning to release a new funding opportunity in late winter 2013. A comprehensive list of awards and more information on NOAA's Office of Education funding opportunities is available [online](#).

NOAA and EPA release roundtable report on hazard-resilient smart growth

On Sept. 24, NOAA and the Environmental Protection Agency (EPA) released a roundtable report entitled '[Achieving Hazard-Resilient Coastal & Waterfront Smart Growth: Coastal and Waterfront Smart Growth and Hazard Mitigation](#).' The report provides ideas for further research, tools, services, and approaches that federal agencies, state partners, academics, and other practitioners could consider to improve integration of the smart growth and hazard mitigation fields in coastal and waterfront communities. The report is the result of an Aug. 2011 roundtable organized by NOAA's Office of Ocean and Coastal Resource Management; Coastal Services Center; National Sea Grant College Program; EPA's Office of Sustainable Communities; and the state Sea Grant College Programs of Rhode Island, Texas, and Hawaii.

Study finds that ocean acidification is accelerated in nutrient-rich areas

Marine resources, coastal economies put at risk

September 24, 2012

Carbon dioxide released from decaying algal blooms, combined with ongoing increases in atmospheric carbon emissions, leads to increased levels of ocean acidification, and places additional stress on marine resources and the coastal economies that depend on them, according to a new study published today.

Ocean acidification occurs when the ocean absorbs carbon dioxide from the atmosphere or from the breakdown of organic matter, which then causes a chemical reaction to make it more acidic. Species as diverse as scallops and corals are vulnerable to ocean acidification, which can affect the growth of their shells and skeletons.

Research by NOAA's William G. Sunda and Wei-jun Cai of the University of Georgia points to the process of eutrophication - the production of excess algae from increased nutrients, such as, nitrogen and phosphorus -- as a large, often overlooked source of CO₂ in coastal waters. When combined with increasing CO₂ in the atmosphere, the release of CO₂ from decaying organic matter is accelerating the acidification of coastal seawater.

The effects of ocean acidification on the nation's seafood industry are seen in the Pacific Northwest oyster fishery. According to NOAA, ocean acidification is affecting oyster shell growth and reproduction, putting this multi-million dollar industry at risk. Annually, the Pacific Northwest oyster fishery contributes \$84 million to \$111 million to the West Coast's economy. According to an earlier NOAA study ocean acidification could put more than 3,000 jobs in the region at risk.

Sunda and Cai used a new chemical model to predict the increase in acidity of coastal waters over a range of salinities, temperatures and atmospheric CO₂ concentrations. They found that the combined interactive effects on acidity from increasing CO₂ in the atmosphere and CO₂ released from the breakdown of organic matter were quite complex, and varied with water temperature, salinity and with atmospheric CO₂.

"These interactions have important biological implications in a warming world with increasing atmospheric CO₂," said Sunda. "The combined effects of the two acidification processes, along with increased nutrient loading of nearshore waters, are reducing the time available to coastal managers to adopt approaches to avoid or minimize harmful impacts to critical ecosystem services such as fisheries and tourism."

Sunda and Cai found that, given current atmospheric CO₂ concentrations and projected CO₂ released from organic matter decay, seawater acidity could nearly double in waters with higher salinity and temperature, and could rise as much as 12 times current levels in waters with lower salinity and lower temperature.

These model predictions were verified with measured acidity data from the northern Gulf of Mexico and the Baltic Sea, two eutrophic coastal systems with large temperature and salinity differences, which experience large-scale algal blooms. The observed and modeled increases in acidity from eutrophication and algal decay are well within the range that can harm marine organisms. Funding support for the research came from the National Science Foundation, NASA and NOAA. The study can be found in this month's edition of the American Chemical Society's Environmental Science and Technology journal.

In the Gulf States

ADCNR awards \$55,000 in public access grants

The Alabama Coastal Area Management Program, which is administered by the Alabama Department of Conservation & Natural Resources (ADCNR), State Lands Division Coastal Section, has awarded a total of \$55,000 in low-cost public access grants to the cities of Chickasaw in Mobile County and Orange Beach in Baldwin County and to the Historic Blakeley State Park.

The grants will provide the cities and the park with federal funding from the National Oceanic and Atmospheric Administration (NOAA) and each grantee will invest an equal amount of non-federal funding in the projects. The City of Chickasaw will use the funds to expand the existing wetland boardwalks at William Brooks Park by approximately 1,200 feet and expand the upland trails by 420 feet. The park is located on the south side of Chickasabogue Creek and west of Hwy 43. This project is phase four of a multi-phase project to make improvements to the park. In phases one, two and three, the city constructed a fishing pier, other sections of the wetland boardwalk, several pavilions and picnic tables, and upland trails. The city also installed interpretive signage and a parking area.

The City of Orange Beach will use the funds to add two canoe/kayak launches to the existing Orange Beach Canoe Trail, which now has 10 launch sites. The two new sites will be in the Terry Cove/Cotton Bayou area and the Bear Point Estates area on Hayden Drive. The Hayden Drive site will include a pier out to Arnica Bay for easier access. The city will install signage and a limited number of parking spaces at each site.

The Historic Blakeley State Park will use the funds to construct a 335-foot boardwalk to and around the historic "Hiding Tree." The boardwalk will end at Bayou Salome. The park will also install a permanent parking area for easy access to the boardwalk. For questions, contact, Janis Helton at Janis.Helton@dcnr.alabama.gov; 251-621-1216 or 251-928-9792.

Helen Wood Park restoration completed

By Sara Shields, Mobile Bay National Estuary Program

The Mobile Bay National Estuary Program, Alabama Department of Conservation and Natural Resources State Lands Division, and the City of Mobile completed the final phase of the restoration of Mobile's Helen Wood Park in September by installing educational signage about the project and the park's saltmarsh ecosystem.

Beginning in 2005, project partners installed permeable parking, a boardwalk, and gazebo at the site, which had been donated to the State of Alabama by Ms. Helen Wood of Daphne in 2004. In 2008, project partners began the restoration of a 3.5 acre salt marsh at Helen Wood Park which was heavily infested with the invasive plant Phragmites. Over the past two years, the site has been excavated to restore the natural hydrology of the wetlands and the invasive plants have been treated with an environmentally friendly herbicide. In November 2009, a volunteer planting re-established the marsh by introducing over 13,000 new native plants and marsh grasses into the area. The project has been successful in restoring the natural water flow and native plant population to the marsh.

“Perfect Storm” of stressors may have led to high dolphin strandings in Winter 2011

July 18, 2012

An unusually high number of dolphin deaths, part of an “unusual mortality event” or UME, along the northern Gulf of Mexico coast have puzzled scientists for over two years. Most troubling to scientists was the exceptionally high number of young dolphins that made up close to 46% of the 186 dolphins that washed ashore from Louisiana to western Florida during January to April 2011. The number of ‘perinatal’ (near birth) dolphins stranded during this four-month period was six times higher than the average number of perinatal strandings in the region since 2003 and nearly double the historical percentage of all strandings.

Although the strandings occurred shortly after the BP Deepwater Horizon disaster (April 2010), the acute cause of death is undetermined. In a recent paper in PLoS One, a team of scientists from several Gulf institutions report that a collision of environmental factors - the oil spill, unusual winter conditions, and cold freshwater discharge - contributed to the timing and distribution of dolphin strandings along the northern Gulf of Mexico coast.

Dr. Ruth Carmichael, Senior Marine Scientist, Dauphin Island Sea Lab and Assistant Professor of Marine Sciences at the University of South Alabama, and her colleagues from The University of Southern Mississippi and the University of Central Florida examined the dolphin stranding data for condition of the carcasses and the area over which the dolphins were found through time. A sudden drop in temperature as snowmelt water pushed through Mobile Bay and Mississippi Sound occurred in the days before discrete peaks in numbers of stranded dolphins, particularly perinatal dolphins. “We think that the dolphin population was already distressed and in poor condition when hit with cold freshwater pulses during the perinatal period,” said Dr. Carmichael.

“We know from work by colleagues at NOAA’s National Marine Fisheries Service that some adult dolphins were in poor condition after the unusually cold winter and oil spill. Some had bacterial infections,” added Carmichael. “When we put the pieces together, it appears that the dolphins were likely weakened by depleted food resources, bacteria, or other factors as a result of the cold or oil spill, which made them susceptible to assault by the high volumes of cold freshwater coming from land and resulted in distinct patterns in when and where they washed ashore.”

The majority of perinatal strandings were centered on the Mississippi-Alabama coast, adjacent to Mobile Bay, the 4th largest freshwater drainage in the U.S. Although nearshore areas are regularly influenced by freshwater drainage, the watershed had experienced moderate to severe drought for several years. Following a particularly cold winter and the Deepwater Horizon oil spill in 2010, the sudden entry of high volumes of cold freshwater from Mobile Bay imposed additional stress on the ecosystem. Onshore movement of surface currents during the same period resulted in animals washing ashore along the MS-AL coast where freshwater inputs were most intense.

Carmichael emphasized, “Targeted analyses of tissues from stranded dolphins are essential to define a cause of death, but our findings highlight the importance of considering environmental data along with biological samples to interpret stranding patterns.” Carmichael, R.H, William M. Graham, Allen Aven, Graham Worthy and Stephan Howden. Were Multiple Stressors a “Perfect Storm for Northern Gulf of Mexico Bottlenose Dolphins (*Tursiops truncatus*) in 2011? PLoS One 10.1371/journal.pone.0041155. Paper will be available online upon publication at <http://dx.plos.org/10.1371/journal.pone.0041155>.

Forever Wild acquires Metcalfe Tract at Weeks Bay Reserve

Forever Wild, Alabama’s land trust program, recently acquired the 33-acre Metcalfe Tract. It lies directly adjacent and northwest to the Swift Tract property on Bon Secour Bay. This acquisition by Forever Wild was assisted in part by a federal grant through the Estuarine Reserve Division of the National Oceanic and Atmospheric Administration (ERD/NOAA). The locator map provided shows the approximate and relative position of this newly acquired land that will be incorporated into the Reserve.

Acquisition of the Metcalfe Tract extends the contiguous riparian buffer adjacent to Bon Secour Bay with a highly productive vegetated area that protects water resources from non-point source pollution and provides aquatic and wildlife habitat. The forested wetlands provide nesting habitat for many bird species including the Red-cockaded Woodpecker (*Picoides borealis*). Mammals like raccoon, beaver, gray and fox squirrel, and others are likely to inhabit the property. Portions of the property can be temporarily flooded by the brackish waters of Bon Secour Bay, influencing the location and types of vegetation on the property.

Forever Wild has greatly assisted conservation efforts in the Weeks Bay Coastal Area and throughout the state of Alabama. Forever Wild has for 20 years acquired over 227,000 acres which are equitably distributed across Alabama. This fall, Forever Wild has the opportunity of being continued through a referendum, to keep acquiring lands for conservation that are Forever Wild, Forever Yours. Learn more about the Forever Wild program at www.alabamaforeverwild.com or on the Weeks Bay Foundation website, www.weeksbay.org.

Stormwater Perspectives 2012 meeting

At the invitation of U.S. Representative Jo Bonner, representatives from area businesses and government agencies in the two coastal Alabama counties gathered for the Stormwater Perspectives 2012 meeting on June 7th at 5 Rivers Delta Resource Center in Spanish Fort. Forty-one people participated in the half-day workshop. Led by the Mobile Bay National Estuary Program, workshop organizers included the Watershed Program at Weeks Bay Reserve, the Coastal Alabama Clean Water Partnership, and stormwater managers from Baldwin County and the Cities of Mobile and Daphne. The meeting was held to discuss and explore how best to manage stormwater in the two counties.

The meeting began with a five-minute video, Stormwater Perspectives, highlighting problems caused by stormwater runoff, the problems facing area government agencies in dealing with runoff, and current planning measures to mitigate runoff in the future. The video can be viewed online at

www.mobilebaynep.com/videos/stormwater_perspectives. Lance LeFleur, Director of the Alabama Department of Environmental Management (ADEM), emphasized to the group the tremendous positive recreational and economic impacts imparted to the area by the resources of Mobile Bay. He said one of ADEM's major priorities is stormwater control and that solving the problem will require a cooperative effort between the private and public sectors. Chip Crockett and Scott Hughes, both of ADEM, provided an overview of the agency's stormwater programs. Both spoke about the importance of taking a holistic approach to stormwater through the development of collaborative efforts. In addition, examples of innovative projects including the Joes Branch restoration in Spanish Fort were highlighted.

Attendees spent the next part of the meeting in three breakout groups to brainstorm how and what kinds of incentives could be developed, how regulations needed to be modified or expanded, and what financing options were available to improve stormwater management in Mobile and Baldwin counties. These ideas were then ranked by participants to indicate which ideas should be developed into implementable strategies. The meeting wrapped up with a discussion of next steps which included putting together a meeting of local government officials to discuss the concept of regionalizing regulations. Mobile Bay National Estuary Program, Weeks Bay Reserve, and the Clean Water Partnership remain committed to improving stormwater management in Mobile and Baldwin counties and growing partnerships with both the public and private sectors.

Northwest District hosts marine industry workshop

~Best management practices help area marinas protect water quality~

PENSACOLA - The Florida Department of Environmental Protection's Northwest District today conducted a workshop designed to provide environmental compliance assistance to northwest Florida's marine industry. Attendees of the workshop included marina and boatyard representatives and marine retailers who conduct business within the district's 16-county jurisdiction.

"The future of our state's environment and economy depend on the health of our water resources. By educating and assisting specific industries, we are better able to work together towards the common goal of compliance," said DEP Northwest District Director Shawn Hamilton. "This free workshop is one of our many efforts to improve compliance through outreach to our regulated community."

The Department's goal, and a goal of many residents and business owners, is to achieve 100 percent compliance with all environmental regulations to protect the resources that provide safe livelihoods and healthy ways of life. Several regulatory specialists from the Department addressed industry-specific challenges and suggest Best Management Practices (BMPs) that the marine industry can implement to ensure not only regulatory compliance, but a higher level of environmental protection. For example, by learning proper vessel pressure washing techniques, attendees can protect Florida's water bodies from contaminants such as oil, grease, paint chips and barnacles.

Other BMPs include:

- Establishing a stormwater pollution prevention plan.
- Establishing a used oil and petroleum management plan.
- Installing pumpout connections at convenient locations and provide clear instructions for operating them.
- Keeping storage units locked except during times when a trained facility employee is available to monitor proper waste segregation, as well as posting signs that indicate wastes can only be put in storage under the supervision of facility personnel.

The Florida Clean Marina Programs are designed to bring awareness to marine facilities and boaters regarding environmentally friendly practices intended to protect and preserve Florida's natural environment. These marinas exceed the level needed for compliance. Since 2000, the Florida Clean Marina Program has recognized 263 marinas, 38 boatyards and 17 marine retailers for their voluntary

dedication to protecting Florida's aquatic resources. For more information about these topics, contact the DEP Northwest District at 850.595-06 or visit <http://www.dep.state.fl.us/northwest/> or http://www.dep.state.fl.us/mainpage/programs/clean_marina.htm.

Florida Department of Environmental Protection, Escambia County begin restoration projects

AUGUST 24, 2012

BY [PGILLESPIE1](#)

The first Florida project funded under the Natural Resource Damage Assessment (NRDA) Early Restoration Projects will soon be underway in Escambia County. A groundbreaking ceremony was held Friday at the Galvez Boat Ramp. The Florida Department of Environmental Protection issued a "Notice to Proceed" for the replacement of existing docks. NRDA Construction Project Consultant Pearce Barrett, P.E represented FDEP at the event alongside Escambia County Commission Chairman Wilson Robertson, Escambia County District 2 representative Gene Valentio, County Project Manager Matt Mooneyham and Marine Resource Manager Robert Turpin.

"The Deepwater Horizon oil spill had a major effect on the human usage of our coastal resources," says Mimi Drew, special advisor to DEP Secretary Hershel T. Vinyard, Jr. "This project is the first of many remaining steps towards rejuvenating our coastal communities." The project will replace the existing docks with three new, larger docks.

The funding for this and future projects is part of a \$1 billion agreement struck between the Deepwater Horizon Natural Resource Trustees and BP Oil Company in response to the Deepwater Horizon oil spill two years ago. Pursuant to the "Framework for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill", BP provided \$1 billion for implementation of early restoration projects as an initial step toward fulfilling their obligation to fund the complete restoration of natural resources impacted by the spill. Escambia County submitted more than \$200 million in projects to the Natural Resources Trustee Council along with the state of Florida. Escambia County has received \$5 million to date. For more detailed information on early restoration projects, visit <http://www.dep.state.fl.us/deepwaterhorizon>.

Apalachicola National Estuarine Research Reserve Center brings increased attendance

~Visitation up 87 percent since last July~

EASTPOINT –The Apalachicola National Estuarine Research Reserve has experienced an 87 percent increase in visitors this July compared to July 2011. In recent months, staff members have seen an abundance of new guests enter the research reserve's nature center, which was completed in February 2011 and sits at the foot of the bridge to St. George Island.

"This whole summer has been booming", said Reserve Director Lee Edmiston, "It's not unusual to see 250 or 300 guests a day come through the doors."

With time running out before school starts, the nature center offers Florida Panhandle residents and visitors a unique opportunity to see nature up close before the summer ends. The center allows visitors to explore the unique connections of the Apalachicola River, Apalachicola Bay and the Gulf Coast in Franklin County. The center offers several large aquariums that feature local fish and turtles from fresh, salt water and brackish water habitats. In the center's Bay Discovery Room, guests can touch the bones and shells of a collection of items from the Apalachicola area. A nine-minute film featuring mural artist

Barbara Harmon explains the center's mural and takes guests on an educational journey connecting the river to the Gulf of Mexico.

The Nature Center is located directly on the bay and includes a small park with a picnic shelter that makes a great place for inexpensive family fun. A short walk on the bayfront provides an opportunity to spot shorebirds. Extensive bottomland hardwoods, pine flatwoods and coastal barrier islands are just a few of the natural communities that make the research reserve a gem of natural diversity. The 247,000 acres of public lands and waters within the boundaries of the research reserve also offer access to paddling trails and a paddle craft launch at the main site. At Scipio Creek, a nature trail ends with a platform over the water and a beautiful view across the creek to the Apalachicola River.

The Reserve is open to educate the public, but also provides access to research opportunities for staff and volunteers. In keeping with the Department's priority of getting the water right, one component of reserve staff research has been water quality data collection at Cat Point and Dry Bar oyster bars -- two of the most productive oyster bars in the bay. This research studies the effects of changing river flow in the 20 years these bars have been studied. Visitors are welcome between 9 a.m. and 4:30 p.m. Tuesday through Saturday and admission is free. For more information, call the Reserve at 850-670-7700 or visit the Reserve's [website](#).

Upcoming Louisiana coastal parish educational workshop

By Jon Truxillo, OCM

DNR will be hosting a special Climate Adaptation for Coastal Communities Training for Louisiana coastal parishes' natural resource professionals at the LaSalle Building (DNR) in downtown Baton Rouge on February 25 and 26, 2013. Climate Adaptation for Coastal Communities provides participants with practical skills and information on coastal climate adaptation issues, such as relative sea level rise and higher intensity tropical storms, through a combination of presentations, facilitated discussions and group exercises.

The course will cover understanding climate science and impacts, determining coastal community vulnerabilities, identifying climate related adaptation strategies and finding mechanisms to implement those same strategies. The course is designed for parish administrators, land use planners, public works staff, floodplain managers, hazard mitigation planners, emergency managers, community groups, members of civic organizations, and coastal resource managers.

After completing this course, participants will be able to:

- Evaluate the strengths and weaknesses of adaptation strategies,
- Apply climate communication research concepts and findings to enable effective communication with target audiences,
- Recognize the changes and variability in climate and climate's influence on coastal communities,
- Identify opportunities to leverage a range of governance mechanisms to integrate adaptation strategies into their existing efforts,
- Examine methods for conducting hazard, vulnerability, and risk assessment as it relates to climate change.

For more information on this course and other National Oceanic and Atmospheric Administration, Coastal Services Center's course offerings contact Jon Truxillo at LDNR at 225-342-3394 or by email at jon.truxillo@la.gov or visit the Coastal Services Center's Digital Coastal Web Page at <http://www.csc.noaa.gov/digitalcoast/>.

Louisiana DNR Clean Marina Program- All achieve re-certification

Friday, September 28, 2012



South Shore Harbor located in New Orleans receives La. Clean Marina recognition and re-certification this year.

South Shore Harbor located in New Orleans receives La. Clean Marina recognition and re-certification this year.

La. Department of Natural Resources (DNR) Secretary Stephen Chustz announced today the re-certification of twelve coastal marinas that have achieved a high standard of management practices and environmental stewardship in operating. Known as the “Louisiana Clean Marina Program” and administered by the DNR Office of Coastal Management, all of the marinas

certified since 2010, have this year, met the goals of best management practices as outlined in the program’s guidelines.

The La. Clean Marina Program began in 2004, when marina operators in the state’s coastal zone were presented the opportunity to join in a strategy formulated by the Office of Coastal Management and the LSU Sea Grant Law and Policy Program to run marinas that were nonpolluting and fully protective of the state’s coastal resources. By the end of 2010, twelve marinas were officially qualified in the Louisiana program, and also became part of a national register of marinas and marina owners that provide attractive facilities for the boating public and exceptional services for clients.

“These marina owners and operators are leaders, true stewards of conservation and protectors of our coastal resources,” DNR Secretary Chustz said. “We are so pleased to show recognition and acknowledge the efforts of these people who have shown their understanding of best business practices and environmentally responsible actions,” Chustz noted.

According to Coastal Management program managers, a partnership is now underway linking the Gulf of Mexico Alliance states- Alabama, Florida, Louisiana, Mississippi, and Texas to a new “Resilient Marina Program” that will expand the Clean Marina program, focusing on hurricane preparedness, response and recovery plans, and more education and public outreach for safer marinas.

DNR aims to reach all marinas within the coastal zone boundary for this certification program and encourages the participation of non-certified operators. The department’s website provides a complete package of information and the La. [Clean Marina Guidebook](http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=124) for review. Here is the online link-
<http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=124>

The Louisiana Clean Marinas are listed here-

Bowtie Marina in Lake Charles, Moran’s Marina in Golden Meadow, Orleans Marina and South Shore Harbor Marina in New Orleans, Myrtle Grove Marina in Port Sulphur, The Delta Marina in Empire, Marina Beau Chene in Mandeville, Marina Del Ray in Madisonville, Bob’s Bayou Black Marina in Gibson, Four Point Landing and T-Irv’s in Dulac, and Houma Downtown Marina in Houma.

Coastal Resilience Index update

By Melissa Daigle, LSU Sea Grant Law and Policy Program

The Coastal Resilience Index (CRI) is a simple and inexpensive way for a community to predict if it will reach and maintain an acceptable level of functioning after a disaster. Melissa Daigle with the Louisiana Sea Grant Law and Policy Program, and Jon Truxillo, with the Louisiana Department of Natural Resources' Office of Coastal Management have worked together to facilitate the CRI in 11 communities across the coast.

Attendees included a range of individuals, such as local government officials and staff, representatives from local non-profit organizations, members of the business community, natural resource agency professionals and local Sea Grant agents. The sessions were a huge success resulting in a detailed discussion of the community's adaptability in times of disaster.

Communities continuously change, as does the makeup of local governments. We are encouraging communities to go through the CRI process on a yearly basis. This will allow local governments to address any changes that might have increased or reduced their resiliency, as well as get any new staff up-to-date. If you would like to have the CRI facilitated in your community, either as a first time or repeat session, please contact Melisa Daigle at mtrosc2@tigers.lsu.edu or Jon Truxillo at jon.truxillo@la.gov.

The CRI takes about two hours to complete, and there is no charge for facilitation. OCM asks that you provide the meeting venue and we will provide you with a list of appropriate attendees for you to contact. The CRI workbook can be downloaded here: www.masgc.org/ri.

University of Southern Mississippi and U.S. Army Corps of Engineers to deploy 19 buoys around State Port at Gulfport

BILOXI, Miss. – The University of Southern Mississippi (USM) Department of Coastal Sciences and the U.S. Army Corps of Engineers (US ACE) Engineer Research and Development Center will be deploying 19 buoys around the State Port at Gulfport this month as part of a two-year monitoring study of juvenile and sub-adult Gulf sturgeon and their movements in the area of the Mississippi Sound near the Mississippi State Port at Gulfport.

Nineteen buoys with receivers will be deployed by USM and will be marked with reflectors to meet U.S. Coast Guard standards. A map, list of buoy locations and photo are attached. The study was mandated by the National Oceanic and Atmospheric Administration (NOAA) and is a component of the current state port expansion proposal review.

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

Gov. Bryant declares Oct. 20 Mississippi Coastal Cleanup Day

Volunteers in Hancock, Harrison and Jackson counties are needed for the 24th annual Mississippi Coastal Cleanup to be held from 8 a.m. – 11 a.m., Saturday, Oct. 20, in conjunction with the International Coastal Cleanup—the world's largest volunteer cleanup effort on behalf of the marine environment. Gov. Phil Bryant has signed a proclamation in support of the annual event organized by the Mississippi Department of Marine Resources and the Mississippi Marine Debris Task Force.

"Clean, litter-free coastlines are essential to the health of Mississippi's marine environments and our tourism industry," Gov. Phil Bryant said. "I encourage people to participate in this year's Mississippi Coastal Cleanup and help make it a great success."

In addition, the Mississippi Coastal Cleanup will continue its partnership with Mississippi Power's Renew Our Rivers program. The Renew Our Rivers cleanups will take place October 10 and 11. During the 2011 International Coastal Cleanup, more than 600,000 volunteers in 108 countries removed more than 9 million pounds of debris from the ocean, rivers, lakes and waterways. In Mississippi, more than 3,000 volunteers pitched in and removed 70 tons of trash.

"Hurricane Isaac is a reminder of the major impact marine debris can have on our shoreline," Lauren Thompson, state coordinator for the Mississippi Coastal cleanup, said. "The Mississippi Coastal Cleanup is an opportunity for volunteers of all ages to join together and play a role in helping to clean up and restore our beaches and coastal waterways." For more information visit the official Mississippi Coastal Cleanup Web site at www.mscoastalcleanup.org or call the info line at 1-877-BEACH 05 (1-877-232-2405).

Flora and Fauna of Texas

The Texas coastal region and wetland habitats are biologically diverse ecosystems home to various plants, insects, amphibians, reptiles, birds and mammals. With thousands of species inhabiting these locations, the Texas General Land Office has compiled a list of some easily recognizable specimens to raise public awareness about the various flora and fauna our coasts and wetlands have to offer.

<http://www.glo.texas.gov/what-wedo/caring-for-the-coast/education-outreach/flora-and-fauna/floraf fauna.php>.

All-volunteer coastal cleanup effort expected to draw about 10,000 beach lovers

Aug 27, 2012

AUSTIN — Texas Land Commissioner Jerry Patterson is urging all Texans to take advantage of their right to access the public beach Saturday, Sept. 22 for the 26 th Annual Texas General Land Office Fall Adopt-A-Beach Cleanup. The cleanup will take place at 29 sites along the Texas coast. "A right not exercised is a right that will be lost," Patterson said. "Join us Saturday, Sept. 22 for a fun time and a great cause, exercising your rights and keeping Texas beaches trash-free."

Adopt-A-Beach volunteers can register at any of 28 check-in sites all along the Texas coast between 8:30 a.m. and 9 a.m. on Sept. 22. Volunteers must pre-register for the St. Jo Island location in advance. Volunteers should wear shoes, a hat and sunscreen. Volunteers will be given data cards, gloves, pencils and trash bags. Most sites along the coast conclude the day's cleanup with cold drinks, hot food and lots of fun. Volunteers may register on-line at www.TexasAdoptABeach.org or become a fan of the Texas General Land Office Adopt-A-Beach program on Facebook. Texans who can't make it to the beach but

still want to support the effort can make a tax-deductible donation at www.TexasAdoptABeach.org. Sponsorship levels range from \$25 to \$25,000.

The Texas General Land Office Adopt-A-Beach program began in the fall of 1986, when 2,800 volunteers picked up 124 tons of trash. Since then, it has grown into one of the most successful all-volunteer efforts in the nation. In 26 years, 430,000 Adopt-A-Beach volunteers have picked up more than 8,300 tons of trash from the Texas Gulf Coast.

Shell Oil Company is the statewide sponsor for the 26th Texas General Land Office Adopt-A-Beach Fall Cleanup. Other sponsors include Apache Corporation, AkzoNobel Surface Chemistry LLC, Cheniere Energy, Halliburton and the Ocean Conservancy. For more information about how you can get involved, call 1-877-TXCOAST or visit our Web site at www.texasadoptabeach.org.

Texas beach cleanup earns Take Pride in America accolade for corporate sponsored event

Sep 11, 2012

AUSTIN — The Texas General Land Office's Adopt-A-Beach program does more than any other volunteer program in the nation to take care of public lands, according to the U.S. Department of Interior. Adopt-A-Beach will be recognized with the Take Pride in America Award for top corporate-sponsored event Oct. 11 in Washington, D.C. It is the third time the program has won the prize.

"Adopt-A-Beach volunteers work hard and really make a difference, from cleaning up trash that's deadly to fish and birds to improving Texas tourism," said Renee Tuggle, Adopt-A-Beach coordinator. "I can't think of any other effort that even comes close to the real world change this program and its volunteers bring about."

Texans may get involved by helping out with the Adopt-A-Beach Fall Cleanup Saturday, Sept. 22 all along the Texas coast. Adopt-A-Beach volunteers can register on-line at www.TexasAdoptABeach.org or at any of 28 check-in sites all along the Texas coast between 8:30 a.m. and 9 a.m. on Sept. 22.

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Follets Beach Access Point



San Luis Pass County Park is located at the eastern end of Follets Island on San Luis Pass and across from Galveston Island. This park is within easy access to the ecologically rich and diverse Christmas Bay and is known for its excellent fishing. The park has 75 full service RV sites and four cabins. The surrounding area offers many educational opportunities through birding and kayak trips from the park to tour the adjacent wetlands. Before this project, there was no Gulf beach access from this park and the closest public access road was approximately 3 miles away.

Brazoria County accepted a 5.9-acre parcel of property donated by a private individual. This property is on the Gulf side of CR 257 (Bluewater Hwy) and within .8 miles of San Luis Pass County Park. The Brazoria County Parks Department constructed parking and pedestrian beach access through this property to access the beach. The parking lot is immediately adjacent to CR 257 and has minimal impact to the site. The Brazoria County Road and Bridge Department (Precinct 1) constructed the parking lot to accommodate 10 vehicles. The Parks Department constructed the boardwalk, walkover, wildlife viewing station and interpretive signage. All structures and the parking lot are ADA compliant. The information on the interpretive signs educates visitors of the importance of Follets Island's native habitat and migrant birds that visit the area.

Nueces Bay Causeway Marsh Restoration

In 2005 and 2006, Coastal Bend Bays and Estuaries Program (CBBEP) conducted an alternatives analyses and conceptual design for the restoration of 160 acres of marsh habitat in Nueces Bay, adjacent to the U.S. Highway 181 causeway between the cities of Corpus Christi (Nueces County) and Portland (San Patricio County), Texas.

Historically, this area consisted of significant amounts of *Spartina* marsh habitat. Approximately 180 acres of marsh were lost directly to dredging and construction of the causeway in the late 1940s, and a further 160 acres were lost to subsequent erosion and subsidence.



The project's initial construction phase, which was funded in part by a CMP Cycle 13 grant award, was completed in 2010. The initial construction phase 1) restored 76 acres of marsh complex, 2) constructed a protective outer-berm, providing another 12 acres of elevated planting area, and 3) created a 72-acre confined cell between the terraces and outer-berm, allowing for the future placement of dredged material to create additional marsh habitat.

The project's second construction phase, funded by the CMP Cycle 15 grant award, calls for the placement of dredged material into the 72-acre confined cell to create a broad expanse of plantable (with *Spartina alterniflora*) saltmarsh complex. Final design specifications for this phase were completed in 2011, and construction is on-going.

CMP Cycle 15 funds have brought construction to approximately 75% completion. Construction is continuing, utilizing CMP Cycle 16 to complete the marsh cells in the 72-acre cell confined by the outer

berm. A CIAP grant will provide funding to armor the outer berm with rock to better protect the marsh mounds. The picture below does not show the marsh cells that are currently being constructed within the 72-acre cell as they have not been completed.

Harte Research Institute explores South Texas continental shelf in new ship

Harte Research Institute for Gulf of Mexico Studies
Summer 2012 newsletter

Thanks to Sylvia Earle, HRI Advisory Council Chair, and Tom Shirley, former HRI endowed chair for Biodiversity and Conservation Science, HRI and TAMUCC faculty will have an unprecedented opportunity to explore the South Texas continental shelf this fall. The R/V Falkor is the newly retrofitted, oceanographic research ship of the Schmidt Ocean Institute, and is currently undergoing shakedown cruises in the Gulf of Mexico.

Peter Etnoyer, one of Tom Shirley's former PhD students who now works for NOAA, is the Chief Scientist on the first leg of the Gulf of Mexico cruises going from St. Petersburg, Florida, to Corpus Christi, Texas, in late August and early September. Tom Shirley will be the Chief Scientist on the second leg, which will leave and return from the Port of Corpus Christi 17-19 September to multibeam map and do ROV studies on the South Texas Banks. Greg Stunz, HRI Endowed Chair for Fisheries and Ocean Health will be Chief Scientist on the third leg, also leaving and returning to Corpus Christi, during 8-23 October to study artificial reefs, selected fish, and water column characteristics. There will be 12 faculty and students on each leg of these cruises, and you can follow their daily activity online at [TAMUCC Mapping South Texas Blog](#).

MPA workshop: International protection in the Gulf of Mexico

Harte Research Institute for Gulf of Mexico Studies
Summer 2012 newsletter

Dr. Richard McLaughlin, HRI Endowed Chair for Marine Policy and Law participated in a trilateral workshop entitled Identifying Parameters for Design of an International Network of Marine Protected Areas. The Gulf of Mexico Large Marine Ecosystem (GOM-LME) Project, HRI, and Mexico's National Commission of Natural Protected Areas (CONANP) sponsored the workshop, which was held on July 17-19 in Boca del Rio, Veracruz, Mexico. The workshop's premise was to facilitate increased involvement of Mexico and Cuba as an extension of the successful Beyond the Horizon forum, which HRI cosponsored at Mote Marine Laboratory in May 2011.

The meeting's purpose was to convene marine protected area (MPA) practitioners from the United States, Mexico, and Cuba to collectively identify design parameters for an international Gulf of Mexico marine protected area network (IGOMMPAN). The group first discussed and agreed upon an overall goal for the IGOMMPAN: to link sites with biophysical connectivity through standardized methods for sustaining human and environmental health and well-being. Next, specific types of features and phenomena were identified as design parameters. Individual input for importance value of each parameter was recorded and will be used for weighting parameters in the design process. A list of candidate sites for inclusion in IGOMMPAN was refined according to site experts of each country.

The middle day of the workshop was a field trip to a couple of sites within the Veracruz Reef System National Park to allow participants to observe various natural and anthropogenic impacts to which the reefs are exposed. Surface and underwater observations highlighted the effects of freshwater inflow, pollution, and sedimentation on the marine coral reef ecosystem, which resulted in identification of specific action items. Most significantly, CONANP and the GOM-LME Project agreed to provide office

space and a full-time coordinator, respectively, to facilitate information exchange within IGOMMPAN, and HRI will host an online data portal for sharing information among MPA practitioners of the three countries. For logistical reasons, all participants agreed that future IGOMMPAN meetings will be held in Mexico. By the conclusion of the workshop, IGOMMPAN was created in the form of a collaborative team of MPA practitioners from the three nations that share the Gulf of Mexico's living marine resources.

McLaughlin has a doctoral student whose research focuses on combining science and policy to design IGOMMPAN as a tool to ensure conservation and sustainability of transboundary living marine resources on a regional scale. The results of the workshop and ongoing trilateral collaboration will be used for the site selection and ranking process. The goal is to chart a path using existing legal vehicles to create and maintain the IGOMMPAN including high-biodiversity sites that demonstrate biophysical and ecological connectivity within the Gulf of Mexico.

Evaluating vulnerability of coastal ecosystems—Mission-Aransas National Estuarine Research Reserve

The Mission-Aransas National Estuarine Research Reserve is collaborating with Texas Sea Grant to conduct a vulnerability assessment of the Reserve and its surrounding communities. The Reserve is an ideal location to conduct this type of vulnerability analysis because it is situated in an area that is already exposed to episodic changes in climate and is forecasted to see increases in the frequency and duration of these episodic changes. The Reserve is also fortunate to have access to a variety of long-term datasets that will allow researchers to adequately assess vulnerability. The Mission-Aransas Reserve will partner with federal and state agencies, local governments, universities, and nonprofits to gather data and thoroughly assess the vulnerability of the Mission-Aransas Reserve ecosystems and local communities to climate change.

Project Goals

The proposed project will:

1. Synthesize and analyze long-term datasets from the Mission-Aransas Reserve and partner organizations to understand the sensitivity of Reserve habitats and species to climate variables.
2. Assess the vulnerability of a subset of Reserve habitats and species to future climate change using relevant data, tools, and expert input.
3. Characterize the human communities of the Mission-Aransas Reserve watershed using the most recent census data and use the results to assess social vulnerability of local communities to potential climate change hazards.

The results from this study will provide resource managers and local officials with the information they need to protect estuarine ecosystems, as well as humans. They will be able to choose appropriate management measures that promote estuarine resilience, incorporate climate change in management plans, and prioritize agency investments. For more information Contact: Kiersten Madden, Stewardship Coordinator Mission-Aransas NERR, kiersten.madden@utexas.edu.

Managing resiliency through disaster response planning

by Kristin Hicks, Coastal Training Program Coordinator

Environmentally sensitive coastal areas like those at the Mission-Aransas Reserve are exposed to many of the same hazards that threaten urban, suburban, and rural areas. The Reserve and its partners are responsible for the protection of commercial and recreational fishing habitat, emergent vegetation, and critical habitat that supports the wintering population of the highly endangered Whooping Crane. As a non-regulatory entity, the Reserve does not implement law enforcement, fire suppression, emergency medical, or other disaster response actions that are typical of cities, counties, and states. Therefore, the Reserve is largely dependent upon on the established disaster response plans of the environmental, public health, and safety agencies that are responsible for responding to a disaster within or nearby the Reserve. Developing a disaster response plan for the Reserve could reduce the impact of hazards to the reserve's habitats by enabling the Mission-Aransas Reserve to become better prepared for disasters and define appropriate actions for assisting with disaster response.

The development of a plan specifically tailored to the Reserve's disaster response needs required input from stakeholders in the emergency management and response community. A stakeholder consultation workshop was held on June 18, 2012, and was attended by representatives from federal agencies, state agencies, and local governments. The purpose of this workshop was to gather input on 1) existing disaster response plans, 2) agency and government roles and responsibilities, and 3) the role that the Reserve would play in the event of a disaster. The workshop also provided stakeholders with the opportunity to become familiar with the capabilities of the Reserve to assist during a disaster, including access to physical assets such as boats, personnel, and volunteers, sampling and testing capabilities, as well as detailed knowledge of the Reserve and its natural resources. The information gathered from this workshop will be used to develop a disaster response plan that is specific to the Mission-Aransas Reserve.

Other News

BP-Sponsored Gulf of Mexico Research Initiative awards new grants

For release: Friday, August 10, 2012, 12:00 p.m. EDT

Media contact: Dr. Robert Gropp, 202-628-1500 x 250 or gripress@aibs.org

RESTON, VA – The Gulf of Mexico Research Initiative, or GoMRI, announced today that it has approved funding for 19 grants that will support studies of the effects of the Deepwater Horizon oil spill on the Gulf of Mexico. Roughly \$20 million will be awarded to these researchers over the next three years.

“Today is a significant milestone for the GoMRI,” said Dr. Rita Colwell, chairman of the GoMRI Research Board. “We have complemented the eight research consortia we have already funded with important smaller grants that significantly extend the scope of work being done by GoMRI. These grants help fill some gaps in GoMRI’s research portfolio that existed between the consortia.”

The GoMRI has now awarded more than \$130 million of the \$500 million that BP committed to independent research into the effects of the tragic Deepwater Horizon oil spill on the Gulf of Mexico. The research proposals being funded today were submitted in response to the GoMRI’s RFP-II initiative. This program funds research with defined goals within at least one of the following five themes: 1) Physical distribution, dispersion, and dilution of petroleum (oil and gas), its constituents, and associated

contaminants under the action of physical oceanographic processes, air-sea interactions, and tropical storms; 2) Chemical evolution and biological degradation of the petroleum/dispersant systems and subsequent interaction with coastal, open-ocean, and deepwater ecosystems; 3) Environmental effects of the petroleum/dispersant system on the sea floor, water column, coastal waters, beach sediments, wetlands, marshes, and organisms, and the science of ecosystem recovery; 4) Technology developments for improved response, mitigation, detection, characterization, and remediation associated with oil spills and gas releases; and, 5) Impact of oil spills on public health.

The GoMRI received 629 letters of intent from potential applicants. Applications were evaluated for scientific and technical merit by an expert panel. The Research Board considered the panel's recommendations and approved funding for 19 of the research proposals.

More information on funded grants are available at: <http://research.gulfresearchinitiative.org/research-awards/> .

The GoMRI Research Board is an autonomous body that administers BP's ten-year research program, created to study the effect, and the potential associated impact, of hydrocarbon releases on the environment and public health, as well as to develop improved spill mitigation, oil detection, characterization and remediation technologies. Through a series of competitive grant programs, the GoMRI is investigating the impacts of the oil, dispersed oil, and dispersant on the ecosystems of the Gulf of Mexico and the affected coastal States in a broad context of improving fundamental understanding of the dynamics of such events and their environmental stresses and public health implications. The GoMRI also funds research that improves techniques for detecting oil and gas, spill mitigation, and technologies to characterize and remediate spills. Knowledge accrued will be applied to restoration and to improving the long-term environmental health of the Gulf of Mexico.

EPA Gulf of Mexico Program Seeks Gulf Guardian Award Nominations for 2013

Gulf of Mexico Alliance partners and friends should take note that nominations for the 2013 Gulf Guardian Awards are being accepted now through March 8, 2013! The EPA's Gulf of Mexico Program partnership developed the Gulf Guardian awards as a way to recognize and honor the businesses, community groups, individuals, and organizations that are taking extraordinary steps to keep the Gulf healthy, beautiful and productive. The Gulf Guardian Award recipients exemplify what the Gulf of Mexico Program partnership is all about; innovative solutions that come about when we pool resources and look for creative ways to positively impact our quality of life and economic well being on the Gulf of Mexico. For the year 2013, the Gulf of Mexico Program will be awarding 1st, 2nd and 3rd place awards for the following seven (7) categories:

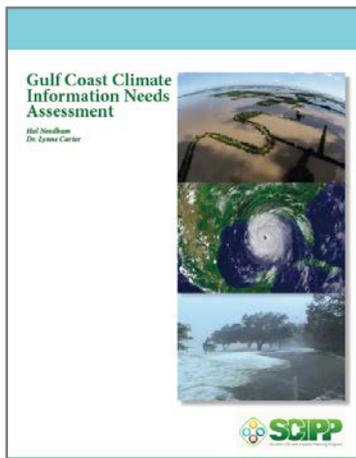
- Business & Industry
- Environmental Justice/Cultural Diversity
- Civic/Non-Profit Organizations
- Partnerships
- Youth Environmental Education
- Individual
- Bi-National Partnerships

All 21 winners in these seven different categories will be rewarded with the Gulf Guardian Memento, extensive press coverage on their project and achievements, and recognition by their peers at a special Gulf Guardian Awards ceremony. To complete a nomination application for 2013, go to the Gulf of Mexico Program's web site at www.epa.gov/gmpo. The 2013 Gulf Guardian Applications are available in both English and Spanish. Email your nomination to gulf.guardian@epa.gov by **March 8, 2013**. If you

have any questions, or require further information or assistance, please contact The Gulf of Mexico Program Office at (228) 688-3726.

The Gulf of Mexico Program is underwritten by the U.S. Environmental Protection Agency and is a non-regulatory, inclusive consortium of state and federal government agencies and representatives of the business and agricultural community, fishing industry, scientists, and community leaders from all across the five Gulf States and Mexico.

Gulf Coast Needs Assessment now available



Hal Needham and Dr. Lynne Carter recently conducted research to better understand the climate information needs of Gulf Coast region decision makers. Carter and Needham produced a report that details their findings, entitled Gulf Coast Climate Information Needs Assessment. The report is available [here](#) and in the Publications section of our website.

The needs assessment is based on interviews with 62 decision makers in coastal Texas, Louisiana, and Mississippi who were located across 25 counties and parishes. The decision makers who participated in the research worked in a wide range of professional sectors including emergency management and homeland security, planning and zoning, agriculture, healthcare, fishing and aquaculture, energy, water management, and marina and harbor management. SCIPP will work to incorporate the identified needs into online visualization tools, education

programs and climate data to assist with local-level hazard mitigation planning.

SCIPP offers dedicated YouTube channel for webinars and climate-related videos

Since SCIPP began hosting webinars for the Managing Drought in the Southern Plains webinar series, a series produced in conjunction with the National Drought Mitigation Center (NDMC), National Integrated Drought Information System (NIDIS), and NOAA Climate Services, in September 2011, the need for those webinars to be recorded and posted for viewing became apparent.

Therefore, SCIPP has created a YouTube channel specifically for these webinars, and other relevant climate-related videos. To access these videos, please visit: <http://www.youtube.com/user/SCIPP01>

Other Sources of Information for the Gulf of Mexico Region

The following websites provide information about activities, announcements, and events in the Gulf of Mexico region.

[Restore the Gulf](#)

[RestoretheGulf.gov](#) is the official federal portal for the Deepwater BP oil spill response and recovery. This site provides the public with information on the response, current operations, news and updates, how to file a claim and obtain other assistance, and links to federal, state and local partners.

[NOAA Gulf Spill Restoration](#)

NOAA and [other federal and state agencies](#) are leading efforts to assess impacts to, and determine appropriate restoration for, Gulf resources injured by the Deepwater BP oil spill. We are in the process of identifying the types of restoration activities that will be appropriate to restore the natural resources impacted by the spill. This is a key step in the ongoing [Natural Resource Damage Assessment](#) for the spill. Through the process, you will have the chance to give us your feedback on what projects are important to restore the affected resources after the spill. You can make your voice heard by [submitting a project idea](#). You can also [view projects](#) that have been submitted for consideration.

The restoration planning process involves many steps and includes input from scientists, experts, and the public. Restoration can take many years and requires the work of many dedicated people. NOAA will continue this work until the Gulf of Mexico is restored to its pre-spill condition. Over the years, NOAA has been involved with 380 restoration projects in the Gulf. NOAA's restoration scientists and specialists in the Gulf states have been providing technical assistance, coordination, and funding for restoration to many local organizations. Learn more about NOAA's restoration projects in the Gulf using our interactive [Restoration Atlas](#).

[Gulf of Mexico Alliance](#)

[The Gulf of Mexico Alliance](#) is a partnership of the states of Alabama, Florida, Louisiana, Mississippi, and Texas, with the goal of significantly increasing regional collaboration to enhance the ecological and economic health of the Gulf of Mexico. See [Gulf of Mexico Alliance News and Events](#).

Other Gulf of Mexico Alliance Related Links

Partnerships throughout the Gulf-region are developing between universities, governments, businesses, and others. Local non-profits are becoming more and more a part of the decision-making process in the gulf. Some of the partnerships and organizations listed below provide opportunities for collaboration with the Alliance.

[Alliance Environmental Education Network Website](#)

[Support the Gulf](#)

[Alliance Diversity Website](#)

[Gulf of Mexico Research Initiative](#)

The mission of the Gulf of Mexico Research Initiative (GRI) is to improve society's ability to understand and mitigate the impacts of hydrocarbon pollution and stressors of the marine environment, with an emphasis on conditions found in the Gulf of Mexico. In addition, the knowledge accrued will be applied not only to resolve, but also to improve the long-term environmental health of the Gulf of Mexico.

Landscape Conservation Cooperatives for the Gulf of Mexico Region

The following section provides information about activities, announcements, and events for the [Landscape Conservation Cooperatives](#) in the Gulf of Mexico region. Landscape Conservation Cooperatives are applied conservation science partnerships among federal agencies, regional organizations, states, tribes, NGOs, universities and other entities within a geographic area. They are designed to inform resource management decisions in an integrated fashion across landscapes at a broader scale than any individual partner's responsibility. The partnerships will consider landscape-scale stressors, including climate change, habitat fragmentation, invasive species, and water scarcity as it attempts to provide a vision for a landscape capable of sustaining healthy populations of fish, wildlife, plants and cultural resources.

Gulf LCCs Regional Updates:

The Gulf Coast Vulnerability Assessment has launched!

On October 29th, an orientation Webex was held for the newly formed Gulf Coast Vulnerability Assessment (GCVA) project teams. The GCVA is a collaborative project led by the four Gulf LCCs and Climate Science Centers, NOAA, and the Gulf of Mexico Alliance. Its goal is to enhance conservation and restoration planning by providing an understanding of the effects of sea level rise and climate change on Gulf of Mexico coastal ecosystems and their species. Our target audiences are Gulf of Mexico coastal and estuarine resource managers, state and regional conservation planners, and the conservation partnerships of the Gulf Landscape Conservation Cooperatives (LCCs).

The Gulf Coast Vulnerability Assessment consists of three primary modules: the Regional Assessment, Vulnerability Assessment, and Potential Impacts Assessment and will be implemented through October 2013. The GCVA will also initiate steps to transition between the vulnerability assessment and the development of a Gulf Coast climate change and sea level rise adaptation strategy. An adaptive approach will also be incorporated into the Gulf Coast Vulnerability Assessment to monitor progress in meeting project goals, update components as new data or models become available, and reassess the vulnerability and potential impacts to coastal ecosystems and species from climate change and sea level rise.

Stakeholder engagement is an important part of the GCVA. Engagement efforts will include a broad range of partners through a Project Consultation Team as well as subject matter experts through the Climate Experts Team and the Ecosystems & Species Experts Team. Stakeholders, such as LCC partners, will also receive regular opportunities to provide input as the project proceeds. A copy of the orientation presentation is available [online](#). Please feel free to contact Laurie.Rounds@noaa.gov with any questions about the GCVA.

Peninsular Florida Landscape Conservation Cooperative



The [Peninsular Florida Landscape Conservation Cooperative](#) (PFLCC) is part of a national network of Landscape Conservation Cooperatives (LCCs). The PFLCC will complement Florida's Wildlife Action Plan and other landscape level conservation strategies to restore, manage, and conserve the biodiversity of the region in the face of both climate change and intense development pressure associated with a rapidly growing human population.

PFLCC Update:

- The PFLCC is faced with a number of threats including but not limited to climate change and urban development rates at unprecedented levels. The [PFLCC Climate Scenarios and Species Vulnerability Assessment](#) project proposes to expand the geographic extend of the socioeconomic and climate scenarios previously developed for south Florida and the Greater Everglades Landscape by the Massachusetts Institute of Technology (MIT) between 2008-2010. The MIT scenarios which currently cover the most southern 30 counties of the PFLCC will be expanded under this grant to match the 40 counties of the FLCC. This will require the engagement of stakeholders through workshops and individual consultations, data acquisition and processing and simulation modeling for the additional counties leading to the development of visualization of a set of "Alternative Futures" for the PFLCC region. The technical assistance will be to work with the PFLCC coordinator, scientists and steering committee to develop priority conservation areas within the scenarios. For more information, visit <http://peninsularfloralcc.org/page/articles-publications>.

South Atlantic Landscape Conservation Cooperative



The [South Atlantic Landscape Conservation Cooperative](#) (SALCC) is part of a national network of Landscape Conservation Cooperatives. The SALCC crosses six states, from southern Virginia to northern Florida. The South Atlantic Landscape Conservation Cooperative is the leading forum in which the conservation community develops a shared vision of landscape sustainability, cooperates in its implementation, and collaborates in its refinement. The mission of the SALCC is to create a shared blueprint for landscape conservation actions that sustain natural and cultural resources. The SALCC publishes a monthly [newsletter](#) to share more information about the

Cooperative. You can also participate in [Third Thursday Web Forums](#) to share information about the activities of the SALCC.

SALCC Updates:

- A list of the 2012 newest funded SALCC projects - the results of which will help fill gaps in the conservation blueprint to support conservation planning - are now [online](#). Each project has a brief description with a link to the full proposal.
- The SALCC hosted two workshops on Natural Resource Indicators and [Surrogate Species](#) during the month of October - one in Raleigh and the other in Savannah. Both were attended by partners from state, federal and non-profit organizations, and they were a key step in developing a shared conservation blueprint for the future of the South Atlantic region. The input received during the workshops was incorporated into the SALCC process to select Natural Resource Indicators that will

be used to help design a shared blueprint for landscape conservation actions that sustain natural and cultural resources in the South Atlantic region. In addition to working with an Indicators Team, the To read the process and learn about opportunities to participate, visit <http://www.southatlanticlcc.org/page/indicators>.

Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative



[The Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative](#) (GCPO LCC) describes both a unique geographic region as well as a new kind of conservation partnership. It is part of a national network of Landscape Conservation Cooperatives (LCCs). LCCs are partnerships among federal agencies, regional organizations, states, tribes, NGOs, universities and others, all of whom leverage resources to define a common

vision for sustaining natural resources within a region. The GCPO LCC conducts research, develops tools that improve natural resource management, and conducts outreach. The goal is to focus coordinated action in support of shared conservation priorities across large connected areas, or landscapes. The GCPO LCC publishes a newsletter, the [GCPO Monitor](#), to share more information about the Cooperative.

GCPO LCC Updates:

- In September, **Adaptation Science Management Team** (ASMT) held its inaugural meeting. The agenda focus on alternative conservation frameworks, conceptual ecosystem models, and conservation targets. This Team, whose purpose for the LCC is to serve as the “technical forum for coordination and communication among LCC partners in matters pertaining” to the LCC’s mission, is comprised of approximately 40 individuals representing the scientific and management community across a broad spectrum of taxonomic and geographic interests. The ASMT met over 3 days last week in Starkville, and developed an outline for a conceptual conservation framework for the GCPO LCC, which will serve as the foundation for a conservation adaptation strategy for the GCPO geography. A short summary of the meeting is available [online](#) and a more detailed report will be released soon.
- Following the retirement of Mark Musaus, a new GCPOLCC Steering Committee Chair was selected during the Fall 2012 meeting. Kenny Ribbeck, with the Louisiana Department of Wildlife and Fisheries. In addition, a new Vice-Chair was elected. Steve Patrick, with the Tennessee Wildlife Resources Agency will serve as the GCPOLCC Vice Chair.
- Alexis Londo joined the GCPOLCC in September. Dr. Londo will be serving in her role of Geomatics Coordinator, as an Assistant Professor at the Geosystems Research Institute/High Performance Computing Collaboratory (GRI/HPC2) at Mississippi State University in Starkville.
- Meg Goecker has been hired as the Coastal I&M Ecologist for the USFWS Refuge Inventory & Monitoring Network, and will be co-located at the Grand Bay NWR headquarters in Moss Point, MS starting November 13th. As the newest member of the Inventory and Monitoring Gulf Network team she will be working with Refuges and their partners in conservation, with an emphasis on the coastal refuges of Alabama, Mississippi, and Louisiana.
- If you are interested in landscape conservation for the Gulf Coast region, I hope you will join the [Gulf of Mexico Coastal and Marine Conservation Group](#) by becoming a member of the [GCPO LCC website](#).

Gulf Coast Prairie Landscape Conservation Cooperative



The [Gulf Coast Prairie Landscape Conservation Cooperative](#) (GCP LCC) is part of a national network of Landscape Conservation Cooperatives. The Gulf Coast Prairie encompasses portions of five states (Texas, Oklahoma, Louisiana, Mississippi, and Kansas) and four terrestrial ecoregions (Oaks and Prairies, Gulf Coast Prairie, Tamaulipan Brushlands, and Edwards Plateau). Eventually, it is envisioned to include portions of three Mexican states that share similar habitats (Tamaulipas, Nuevo Leon, and Coahuila). The GCP LCC consists of partnerships based on science, and brings information to on-the-ground strategic conservation efforts. The GCP LCC offers leadership to strengthen the effectiveness of conservation of wildlife populations and their habitats by providing the best available scientific information to inform management decisions.

GCP LCC Updates:

- The GCP LCC has initiated a newsletter to share information about the LCC. The Fall 2012 edition can be found [online](#).
- A new Science Team was formed by the Gulf Coast Prairie LCC Steering Committee in June 2012, and the newly formed team met in October 2012 to plan a [Focal Species Process](#) for identifying a suite of focal species in the GCP LCC. The Science Team is responsible for coordinating GCP LCC science efforts, communicating with the Steering Committee and GCP LCC staff, and ensuring that actions and recommendations coming to the Steering Committee or developed and disseminated by the GCP LCC are founded on sound scientific principles. Science Team Members representing coastal conservation and scientific disciplines include:
 - Jorge Brenner, The Nature Conservancy
 - John Foret, NOAA, Southeast Fisheries Science Center, Galveston Lab
 - Sally Morehead Palmer, Mission-Aransas National Estuarine Research Reserve
 - Jarrett (Woody) Woodrow, U.S. Fish and Wildlife Service, Coastal Program
 - Roger Zimmerman, NOAA, Southeast Fisheries Science Center, Galveston Lab
- The GCP LCC project, “[Conservation Design Considering Sea Level Rise Impact](#)”, held the first of two workshops for this project were held on June 7, 2012, at the Mission-Aransas National Estuarine Research Reserve facility at the University of Texas Marine Science Institute campus in Port Aransas. Over thirty participants from thirteen agencies, universities, and environmental organizations attended the day-long meeting that solicited information on 1) environmental and biological GIS data that is available for habitat assessments and projections and 2) indicator species of avian guilds, including waterfowl, wading birds, shorebirds, colonially nesting waterbirds, prairie birds, and wintering whooping cranes. Read a [summary](#) of the June 7th workshop.

Did you find this edition useful? Please send suggestions, comments, and new items for publication to



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<http://www.coastalmanagement.noaa.gov/>

<http://coastalmanagement.noaa.gov/news/gomexnews.html>