

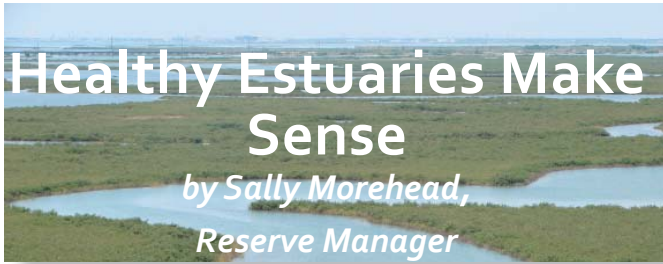


# THE MISSION ★ ARANSAS OBSERVER

A Newsletter of the Mission ★ Aransas National Estuarine Reserve



SPRING  
2011



## Healthy Estuaries Make Sense

by Sally Morehead,  
Reserve Manager

Did you know that one of every six jobs in the United States is dependent on coastal resources? One of the goals of the Mission-Aransas Reserve is to support these jobs by helping to ensure that our coasts are healthy places that support strong recreational and commercial fisheries. In 2006, Texas ranked number two in the nation in number of dollars spent on marine recreational fishing at \$3.37 billion. Healthy fisheries require good water quality, and the research conducted at the Reserve helps track changes in the water quality of our estuaries. This research helps coastal managers by alerting them when there is a problem, before it gets too large to handle.

Not only do people come to South Texas to fish, but also to enjoy our warm weather, sunny beaches, and pristine estuaries. The Mission-Aransas Reserve is based in Port Aransas, Texas, a vacation destination that brings in over \$2.8 billion a year from tourism. The quality of the natural environment is a major draw for visitors who enjoy birding, wildlife watching, and other forms of nature-related activities. The Reserve helps Port Aransas and other local communities preserve tourism by promoting sustainable development that enhances the conservation of coastal resources. The Reserve also supports the

tourism industry by providing free public programs that range from hands-on marsh exploration to Science on a Sphere®, NOAA's state-of-the-art visual display system.

Tourism and fishing are vital to our economy, but we all know that our children are the key to providing a future that thrives both economically and environmentally. The Reserve is committed to helping the leaders of tomorrow understand how our coastal resources work and how they affect the way we live. The K-12 education programs offered at the Reserve provide children with the skills they will need to make good decisions that sustain our coastal resources well into the future. These coastal resources are key drivers to both our current and future economy. The Mission-Aransas Reserve is proud to play a part in supporting coastaleconomies. Read on to learn more about our programs and how they support local communities.



The Headquarters Building has supported >500 construction jobs.

**Wetlands Education Center = >15,000 visitors/yr**  
**UTMSI Visitor Center = >40,000 visitors/yr**  
**Bay Education Center = 4,623 since July 2010 opening**  
**Headquarters = Over 500 construction jobs**  
**Percent of Texas materials used in construction = 82%**  
**Kids educated = 9,210 in FY09**  
**Education Programs = 308 in FY09**  
**Volunteer Hours = 5,022 in FY09**  
**Outreach Programs = 292 in FY09**  
**Decision-makers trained = 272 in FY09**

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The Gulf Estuarine Research Society's 2010 Meeting was held at the University of Texas Marine Science Institute in Port Aransas, Texas on November 3 & 4, 2010. The meeting was well attended with just over one hundred participants, mostly from Texas, but also from other Gulf states, including Louisiana, Alabama, and Mississippi. Forty-one papers were presented in eleven thematic sessions during the two day conference. Session topics ranged from biogeochemistry to community ecology, and a special session featured recent findings from the Deepwater Horizon oil spill. This was a great meeting for student participation; we had seventeen student scientific presentations competing for the best student presentation awards. Best graduate student presentation was awarded to Avier Montalvo from The University of Texas at Austin, and best undergraduate presentation went to Philip Torres from Texas A&M University, Corpus Christi. Congratulations!

A social/poster session and dinner were held on Wednesday night at the Port Aransas Community Center, with fourteen poster presentations. This provided participants with a chance to relax after a day of scientific presentations, catch up with old friends, and talk to poster presenters about their research. The

meeting coincided with the 100th anniversary celebration of the city of Port Aransas, and poster session participants were able to tour the Port Aransas Preservation and Historical Association Museum adjacent to the Community Center, which features artifacts and displays on the city's maritime history.



The meeting featured a plenary presentation by Dr. Nancy Rabalais, executive director and professor from the Louisiana Universities Marine Consortium (LUMCON). Nancy's talk was entitled "Oilmageddon, Dead Zones and Vanishing Land", and she discussed the range of serious environmental problems facing coastal Louisiana and the northern Gulf of Mexico, including some interesting experiences she had this summer trying to deal with the invasion of workers dealing with the oil spill into Cocodrie, Louisiana (very small town where LUMCON is located) and all the confusion and politics surrounding the clean up and response efforts.



UTMSI graduate students Avier Montalvo, Rachel Mills and Megan Nims, at the Gulf Estuarine Research Society Meeting. Photo by Karen Bishop.

As President of GERS, I want to acknowledge the financial support for this meeting provided by University of Texas Marine Science Institute, the Coastal Bend Bays & Estuaries Program, The Mission-Aransas NERR and by Hach Hydromet/Hydrolab. I could not have organized this meeting without the help of Mission-Aransas NERR staff and students including Cammie Hyatt, Denise Bruesewitz, Rae Mooney and Britt Dean, and UTMSI Graduate Student Association president Jena Campbell, who organized the student participation.



Visit: <http://lighthouse.tamucc.edu/MissionAransas/HomePage> to get real-time water quality and weather data, collected at the Mission-Aransas NERR SWMP stations.

# Getting Down and Dirty: The Abandoned Crab Trap Removal Program

by Dr. Kiersten Madden  
Stewardship Coordinator



In Texas, commercial harvesting of blue crabs is an important part of the coastal economy. Historically, an average of 6.3 million pounds of blue crabs have been harvested annually - this generates around \$12 million in revenue for the State of Texas. Crab traps are the primary method used to catch blue crabs. The traps are rectangular-shaped devices made of chicken wire. They typically have two inverted funnels on the sides that allow the crabs to enter, but make it difficult for them to escape. The traps are baited with dead fish and left out in the water for an extended period of time before being collected for harvesting.

Although crab traps have improved the catch efficiencies of commercial crabbers, they pose serious threats to the environment when they are abandoned or lost. "Ghost fishing" (the continued capture of wildlife by unattended traps) is a major source of mortality for blue crabs and a variety of other types of wildlife - 41 species of aquatic organisms have been documented in abandoned crab traps in Texas, including the diamondback terrapin. Lost and abandoned crab traps can also damage sensitive habitats, such as seagrass beds, and can result in costly repairs or loss of valuable time when boat motors or fishing gear come into contact with lost traps.

In 2001, the Texas Parks and Wildlife Commission was given the authority to create an abandoned crab trap removal program. The legislation resulted in an annual moratorium on the use of crab traps. The

closure begins on the third Friday of February and lasts ten days. During this ten day period, all traps left in the water are considered litter and can be removed by any willing volunteer. Since 2002, volunteers have removed over 27,562 abandoned traps from Texas waters. The removal of less and less traps during the program's ten year timeframe is a sign of its success.

Texas Parks and Wildlife Department (TPWD) and other organizations provide dumpsters in each Texas bay system for the disposal of the collected traps. They also set aside one day of the ten-day closure period to help facilitate the removal of traps at specific sites. This year, the Mission-Aransas NERR assisted TPWD with the facilitation of some of these sites. Staff and volunteers were stationed at boat ramps at Conn Brown Harbor and Goose Island State Park to hand out supplies to out-going boats and to assist with the unloading and disposal of traps being brought back to the dock. This is a very successful program that the Mission-Aransas NERR will continue to support, so keep your eyes open for announcements about helping out with next year's removal.



*Diamondback terrapins are air-breathing reptiles that live in salt marsh habitats along the coast. They are attracted to the bait used to catch blue crabs and can drown if they become caught in an abandoned or lost trap.*

## Spring Adopt-A-Beach Cleanup

Help keep Texas beaches clean by participating in the Texas General Land Office Spring 2011 Adopt-A-Beach Cleanup. Join volunteers from the UTMSI Green Team as they pick-up litter on April 30 at the South Jetty in Port Aransas. Volunteers will meet at the UTMSI Wetlands Education Center at 9:00am. The clean-up will last until 12:00pm and will be followed by a barbeque at Robert's Point Park.

For more details or to sign-up to participate, contact Kiersten Madden (361-749-6779; [kiersten.madden@mail.utexas.edu](mailto:kiersten.madden@mail.utexas.edu))



# CONNECTING CHILDREN AND NATURE IN THE COASTAL BEND

by Carolyn Rose  
Education Coordinator

Over the last few years there has been much discussion about how disconnected our children have become from the natural world. This discussion was ignited in large part by Richard Louv's 2005 book, "Last Child in the Woods: Saving Our Children from Nature Deficit Disorder", and has resulted in national (No Child Left Inside) and state (Texas Children in Nature) level movements to reconnect children to nature. Research has shown that connection to the natural world enhances the physical and emotional health of both children and adults. Children who spend time in nature are less likely to suffer from obesity, attention deficit disorder, and depression.

Statewide organizations interested in re-connecting children with nature have come together to form the Texas Partnership for Children in Nature. The Texas Parks and Wildlife Department, one of our Reserve partners, is a leading member of the partnership. Mission-Aransas educators recently attended a conference hosted by the partnership to learn about their new strategic plan, which may be accessed at: [www.texaschildreninnature.org](http://www.texaschildreninnature.org). Among other goals, the plan calls for increased outdoor learning experiences, access to natural areas for all people, and outdoor physical activity opportunities.



A team member tries a shell on for size at the Coastal Bend Nature Challenge opening event.

All of the goals outlined in the strategic plan are addressed by the Mission-Aransas Reserve's involvement in the Texas Nature Challenge. This event is coordinated state-wide by the Texas Forest Service and Texas Agrilife Extension Service, and regionally by Lari Jo Johnston of the Coastal Bend Bays & Estuaries Program, another Reserve partner. The goal of the Nature Challenge is to encourage families to engage in nature exploration in local parks, museums, and natural areas. Prizes are awarded to participating family "teams" in several categories, including most sites visited, most creative entry, best scrap book, and more. For more information please visit: <http://naturechallenge.tamu.edu/>.



Grand prize winners, "Team White," accept their prize at the Coastal Bend Nature Challenge closing ceremonies.

Last year, the Mission-Aransas Reserve offered Nature Challenge activities at the Wetlands and Bay Education Centers and we will offer different activities this year, from late August through mid-November, 2011. Last year was the first time that the Nature Challenge was offered in the Coastal Bend. We are hoping that the word is out now and more families will come explore the nature of the Mission-Aransas Reserve and participating sites during this year's Nature Challenge.

## Estuary Explorers Labs

This summer, the Mission Aransas NERR will introduce new family-oriented education programs at the Bay Education Center. These "Estuary Explorers Labs" will be offered each Saturday morning, from 10 am to noon, June 4th through August 6th.

Bring the family and come explore an estuary in downtown Rockport, Texas!

Contact Carolyn Rose (361-749-6832; [carolyn.rose@mail.utexas.edu](mailto:carolyn.rose@mail.utexas.edu)) for more information.



Blue crabs are economically valued as a food item and are a major component of the estuarine food web. They are scavengers that also serve as prey items for other crabs, fish, and many types of birds, including the endangered Whooping Crane. Unfortunately, blue crab abundance is declining both locally and statewide, according to the Texas Parks and Wildlife Department. The Coastal Training Program (CTP) hosted a "Blue Crabs and Texas Coastal Ecosystems Conference" at the University of Texas Marine Science Institute (UTMSI) on January 26, 2011. This one-day event was timely and relevant for the Senate Bill 3 process, which allows scientists and other stakeholders to submit freshwater inflow recommendations to the Texas Commission on Environmental Quality. Expert scientists involved in this process had considered using blue crabs as an indicator of salinity levels, but knowledge about local blue crab populations is limited. The CTP recognized this information gap and provided a forum for the exchange of information between experts, local resource managers, scientists, and stakeholders.

Local decision-makers eagerly responded to advertisements for this conference and over 75 individuals were in attendance. The conference featured numerous local speakers in addition to blue crab experts Dr. David Eggleston from North Carolina State University and Dr. Dan Rittschof from Duke University. Evaluation surveys showed that participants found the information very helpful with 98% of attendees reporting an increase in their knowledge and skills. One participant described the event as providing, "a broad base of information on a discrete topic ... a really

great opportunity to share information and gain different perspectives."

Attendees were fond of the expert discussion panel and found that it was "... effective in tying earlier talks' subjects and branching out into other specific subjects." Don't worry if you missed it - presentations and video recordings from the event can be viewed through our website (see below for link).



*Participants engage blue crab experts during a panel discussion.*

The CTP also has a number of upcoming events, including a one-day conference on June 28, 2011 titled "Water Words that Work." The purpose of this event is to learn how to better communicate water quality information. It will take place at UTMSI in Port Aransas, TX. This event will feature an expert trainer, Eric Eckl, who provides this workshop nationally. For more information, to register for an upcoming training, or review our calendar, please visit our website:

<http://www.utmsi.utexas.edu/about-the-institute/mission-aransas-nerr/coastal-training-program.html>

If you have questions regarding this article, upcoming events, or the CTP, please contact Chad Leister, at [cleister@mail.utexas.edu](mailto:cleister@mail.utexas.edu) or 361.749.6782.

## WHAT IS CTP?

THE COASTAL TRAINING PROGRAM (CTP) PROVIDES NEEDS BASED TRAINING TO LOCAL COASTAL DECISION-MAKERS. DECISION-MAKERS ARE TYPICALLY DEFINED AS INDIVIDUALS WHO MAKE ROUTINE DECISIONS ABOUT THE MANAGEMENT OR USE OF COASTAL AND ESTUARINE RESOURCES IN A PROFESSIONAL OR VOLUNTEER CAPACITY.

## Volunteers Treated Like VIPs at the Texas State Aquarium



by Colleen McCue  
Volunteer Coordinator

The Mission Aransas NERR and UTMSI invited all of the volunteers that have devoted their time and effort to volunteering at/on the Animal Rehabilitation Keep, Wetlands Education Center, Bay Education Center, R/V Katy, Visitor Center, and/or special events to come and spend a special day being treated like a “VIP” at the Texas State Aquarium.

On March 6th, 25 volunteers attended a special appreciation event organized by the new Volunteer Coordinator, Colleen McCue, and the event staff at the Texas State Aquarium in Corpus Christi, TX. Volunteers carpoled to the Aquarium and began their day by receiving a guided tour through the main exhibits. Next, volunteers got a closer look at the exhibits by venturing behind the scenes where they learned about the everyday work that goes into running the Aquarium.



The volunteers all raved about the naturalists that led them on their behind the scenes journey. They especially enjoyed hearing about the constant “drama” of working with animals at the Aquarium – stories covered a wide range of interesting topics, such as separating seahorses to

prevent inbreeding, catching roseate spoonbills on the loose, and preventing sharks from snacking on other exhibit fish. One of the main highlights of the day was seeing the sea turtles on display in the outdoor area of

the Aquarium and knowing that some of these animals may have been rehabilitated by volunteers at the ARK.

Volunteers were treated to a catered lunch in the Aquarium’s board room that overlooks the dolphin exhibit. Special recognition and certificates were given to Theta Kenney and Ken Dalton for five years and ten years of volunteer service, respectively. For the second half of the day volunteers were left to explore the rest of the facility and take in some shows on their own. Overall the day was a great success and enjoyed by all. There will be another volunteer appreciation event hosted in the fall to thank new volunteers and those that weren’t able to attend this one. A special thanks to the event staff of the Texas State Aquarium for hosting such a fantastic day!



Volunteers pose in front of the underwater dolphin viewing exhibit.

## Spring cleaning?



*Reduce your impact on the estuary and stock up on environmentally-friendly cleaning products such as baking soda, white vinegar, borax, liquid castile soap, lemon juice and tea tree oil. Do a little online research to get started, and you’ll be making your own favorite cleaning solutions in no time.*



# Special Summer Events



## UTMSI Open House

**Saturday August 13, 2011 from 8am - 4:30pm**

*Marine Science Institute Campus - Port Aransas, Texas*

The Marine Science Institute opens its doors to the public every two years with boat cruises and tours that explore the wonders of Marine Science. Come visit this popular biannual event that is open to everyone and free of charge.

Activities include boat cruises aboard research vessels, guided tours, shows, and exhibitions. Registration on the day of the event is required for all boat cruises and guided tours. Check out [www.utmsi.utexas.edu](http://www.utmsi.utexas.edu) for more information.



## Ribbon cutting for the Estuarine Research Center

**Saturday July 23, 2011 at 11:00 am**

*Marine Science Institute Campus - Port Aransas, Texas*

The Estuarine Research Center will house the Headquarters for the Mission-Aransas National Estuarine Research Reserve and an expansion of the Marine Science Institute.

Designed by Richter Architects, this is the first educational facility in South Texas to be built for *Leadership in Energy and Environmental Design* Silver Certification.

Tours of the building will be hosted by University staff following the ceremony.



# CALENDAR OF EVENTS

## APRIL

27-28 TEXAS BAYS AND ESTUARIES MEETING, UTMSI

30 ADOPT-A-BEACH CLEAN-UP  
9AM-12PM

GREEN TEAM SILENT AUCTION & 50/50 RAFFEL 3PM-5PM AT THE GAFF IN PORT ARANSAS

## MAY

## JUNE

1 2011 RESEARCH EXPERIENCE FOR UNDERGRADUATES BEGINS

28 WATER WORDS THAT WORK, UTMSI

## JULY

23 NERR HEADQUARTERS RIBBON CUTTING

## AUGUST

2-4 GULF OF MEXICO ALLIANCE MEETING  
NEW ORLEANS, LA

13 UTMSI OPEN HOUSE

20 TEXAS COASTAL BEND NATURE CHALLENGE OPENING CEREMONIES

## TOURS OF THE WETLANDS EDUCATION CENTER

EVERY TUE. AND THURS. AT 10AM  
AT UTMSI IN PORT ARANSAS

## SCIENCE ON A SPHERE

EVERY TUES. - SAT. AT 2PM AND 3PM  
AT THE BAY EDUCATION CENTER IN ROCKPORT

## ESTUARY EXPLORERS LABS

EVERY SAT. JUNE 4TH - AUG. 6TH, FROM 10AM TO 12PM  
AT THE BAY EDUCATION CENTER IN ROCKPORT

## AFTERNOON MOVIE

EVERY MON.-THURS. 3PM  
AT THE UTMSI VISITOR CENTER



**MISSION ★ ARANSAS  
NATIONAL ESTUARINE  
RESEARCH RESERVE**

University of Texas  
Marine Science Institute  
750 Channel View Drive  
Port Aransas, Texas 78373  
[www.utmsi.utexas.edu/nerr](http://www.utmsi.utexas.edu/nerr)



**MISSION ★ ARANSAS NATIONAL ESTUARINE RESEARCH RESERVE**

**STAFF**

Reserve Manager: *Sally Morehead*

**STEWARDSHIP**

Stewardship Coordinator: *Dr. Kiersten Madden*

Cooperating Scientist: *Dr. Ken Dunton*

Animal Rescue: *Candice Mottet and Amanda Terry*

Research Assistant: *Anne Evans*

**COASTAL TRAINING**

Coastal Training Program Coordinator: *Chad Leister*

**EDUCATION**

Education Coordinator: *Carolyn Rose*

Marine Education Services Director: *Sara Pelleteri*

Education Specialists: *John Williams, Linda*

*Fuiman, Dr. Rick Tinnin, and Suzy Citek*

Volunteer Coordinator: *Colleen McCue*

Road Scholar Coordinator: *Reta Pearson*

**RESEARCH**

Research Coordinator: *Dr. Ed Buskey*

Research Assistants: *Cammie Hyatt, Britt Dean,*

*Rae Mooney and Lindsey Pollard*

Cooperating Scientist: *Dr. Tracy Villareal*

Graduate Research Fellow: *Jena Campbell*

Graduate Research Assistant: *Brad Gemmell*

Postdoctoral Fellow: *Dr. Denise Bruesewitz*



*The Mission-Aransas National Estuarine Research Reserve includes 185,708 acres of federal, state, and private land, on the south Texas Coast. A great diversity of habitats are contained within the Reserve, including tidal marsh, riverine, marine, prairie, mangrove and woodland. Protecting these habitats, encouraging resource conservation and providing opportunities for research and education are among the major goals of the Reserve. The Reserve is administered by the University of Texas Marine Science Institute and the National Oceanic and Atmospheric Administration, in partnership with governmental agencies and private organizations. Mission-Aransas NERR partners include the United States Fish and Wildlife Service, Texas General Land Office, Texas Parks and Wildlife Department, Texas Department of Transportation, Coastal Bend Bays & Estuaries Program, Coastal Bend Land Trust, Nature Conservancy, Fennessey Ranch, and Aransas County / City of Rockport.*