

# OYSTER CATCHER



A publication of the Apalachicola National Estuarine Research Reserve Summer 2010



Getting to know your local aquatic preserves

## To Endure for Our Enjoyment

*In 1975, Florida enacted the Aquatic Preserve Act to ensure that aquatic preserves' natural condition ... "their aesthetic, biological, and scientific values may endure for the enjoyment of future generations."*

■ **INSIDE** *By Kim Wren, Aquatic Preserve Manager*

- A Summer of Transition ... 2*
- An Uncertain Season ... 3*
- Writing About Nature ... 4*
- Flames to Flowers ... 5*
- Living Shorelines Initiative ... 6*
- A Local Perspective ... 8*

Our expansive coastline and wealth of aquatic resources have defined Florida as a subtropical oasis, attracting millions of residents, businesses, and visitors. Florida's submerged lands play important roles in maintaining good water quality, hosting a diversity of wildlife and habitats (including economically and ecologically valuable nursery areas), and supporting a treasured quality of life for all. In the 1960s, it became apparent that the ecosystems that had attracted so many people to Florida could not support rapid growth without science-based resource protection and management. In 1975, with growing appreciation for their environmental diversity and alluring beauty, Florida enacted the Aquatic Preserve Act. This ensured that aquatic preserves' natural condition... "their aesthetic, biological, and scientific values may endure for the enjoyment of future generations."

With increasing development, recreation, and economic pressures, our aquatic resources have the potential to be significantly impacted, either directly or indirectly. These potential impacts to resources can reduce the health and viability of the ecosystems that contain them, requiring active management to ensure the long-term health of the entire network.

The Florida Aquatic Preserves are administered on behalf of the State by the Florida Department of Environmental Protection's (FDEP) Office of Coastal and Aquatic Managed Areas (CAMA) as part of a network that includes 41 Aquatic Preserves, 3 National Estuarine Research Reserves (NERRs), a National Marine Sanctuary (NMS), the Coral Reef Conservation Program (CRCP), and the Florida

*See Aquatic Preserve, page 7*

# A Summer of Transition

## ■ COMING UP

**Panhandle Habitats / Barrier Islands**  
**Sep. 22, 8:45a-4:30p (rain date Oct. 29)**  
Register by Sep. 15, \$10.00  
Matthew.R.Anderson@dep.state.fl.us /  
850.653.8063

**Green Industries Best Management Practices / Lawn Maintenance and Landscape Personnel**  
**Sep. 23, 8:45a-4:00p**  
Register by Sep. 15, \$15.00  
Hector.Rivera@dep.state.fl.us /  
850.245.8086

**Franklin County Coastal Cleanup**  
**Sep. 25, 8:30a-11:30a**  
Picnic Lunch & Awards to follow  
Riverkeeper@ApalachicolaRiverkeeper.org /  
www.apalachicolariverkeeper.org  
850.653.8936

**Growing Up WILD Workshop / Preschool-3rd Grade Educators**  
**Oct. 2, time tba**  
ANERR Education & Training Center  
Registration required, free\*

**Panhandle Habitats / Estuaries**  
**Oct. 6, 8:45a-4:30p (rain date Oct. 20)**  
ANERR Education & Training Center  
Register by Sep. 29 / \$10.00  
Matthew.R.Anderson@dep.state.fl.us /  
850.653.8063

**Beyond the Pond: Research-based Approach to Stormwater Treatment System Selection**  
**Nov. 17, 8:45a-5:00p**  
ANERR Education & Training Center  
Register by Nov. 8 / \$15.00\*

**Principles of Ecological Restoration w/Dr. Andre Clewell**  
**Nov. 30-Dec. 3, time tba**  
St. Joseph Bay State Buffer Preserve Center  
Register by Nov. 19 / \$75.00\*

\*To register, contact  
Rosalyn.Kilcollins@dep.state.fl.us /  
850-653-8063, x13

By Seth Blicht, Reserve Manager

The summer of 2010 will certainly mark a major period of transition for the Apalachicola NERR. As you will read in this issue, the reserve had, and continues to have, a full role in response and recovery efforts related to the Deepwater Horizon spill event. We've learned new skills (and jargon), and have transitioned through the summer by remaining as prepared and vigilant as we have ever been when it comes to the protection of coastal and estuarine resources. The reserve's response to the event has been shared by all staff, and has been truly integrated.



With the new ANERR facility nearly complete we've begun to transition into life in the new digs. For instance we've had a few aquaria in our Apalachicola office go down, and since our time in that facility is short, we've not replaced the tanks. On the other hand, three of the five tanks in the new place are up and running, and are populated with seemingly healthy and happy fish (I asked them myself). While it appears the grand opening won't be until mid-fall we've been discussing how we'll accommodate new hours of

operation, what program and event changes we are likely to realize, and how we're going to keep roughly 14,000 square feet of carpet clean. To be sure, we eagerly anticipate moving from two offices to one, and the new opportunities to reach out to visitors and orient them to the magnificent Apalachicola Bay area, but are not completely undaunted by the pending move.

Finally, some of the more natural transitions this summer have been observable in and around ANERR. Female sea turtles have crossed miles of Gulf to find the shores where they hatched, and to lay nests with this year's cohort of their own offspring. The research staff reports that this has been one of the better years for nesting on Little St. George Island. Migratory bird species like sandwich and gull-billed terns have successfully raised chicks that will make it back in subsequent years to lay their own clutch. In the national forest, pitcher plant blooms have yielded to fringed orchids and marsh pinks (also an orchid), and the territorial calling of song birds has been succeeded by plaintive calls of their young begging for a snack. So change, as always, is constant, and around these parts normally beautiful to observe. Just another reason to get out, stay out, and enjoy.

*Preparing for the worst, hoping for the best*

# An Uncertain Season

*By Jenna Wanat, Research Coordinator*

Following the explosion and subsequent sinking of the Mississippi Canyon 252/Deepwater Horizon oil rig there was great uncertainty as to the fate of the delicate ecosystems that comprise the Gulf Coast of Florida. Now, more than two weeks after the capping of the well head, we are continuing to wait and see the outcome of the oil spill and the potential impacts to our Reserve. Below is a summary of research activities over the past three months.

Florida's Department of Environmental Protection (DEP), the state partner for Florida's NERRs, was designated as the state trustee for NOAA's Natural Resource Damage Assessment (NRDA) following the oil spill. NRDA is a legal process by which trustees determine if there has been a loss of resources (species and habitats) and whether or not the losses have resulted in reduced ecosystem services. NRDA provides information that will guide remediation and restoration of, or compensation for, these resources.

DEP's Office of Coastal and Aquatic Managed Areas (CAMA) including ANERR staff, Northwest Florida Aquatic Preserve staff, Big Bend Aquatic Preserve staff and DEP's Division of Environmental Assessment and Restoration (DEAR) collected baseline water and sediment samples along the panhandle of Florida in early May. Intertidal infaunal samples were also taken to provide baseline information. At the same time, the Department of Agriculture and Consumer Services (DACS) Shellfish Division collected oyster and clam samples from the immediate area, while researchers from Florida Fish and Wildlife Conservation Commission (FFWCC) collected fish and benthic macrofauna samples within the Reserve. DEP's Bureau of Air Monitoring established a monitoring station at the end of the Reserve's dock. The U.S. Fish and Wildlife Service (USFWS) and FFWCC worked with Reserve staff to coordinate listed species monitoring and protection within the Reserve boundaries. Additional signage and fencing were used to identify sensitive areas for assessment and clean up crews.



*It has been a season of extensive monitoring of local shorelines to assess the impact of the Deepwater Horizon oil spill.*



While preparing for the next round of sampling, staff from the Reserve received HAZMAT training and Shoreline Cleanup Assessment Techniques (SCAT) training. The HAZMAT training allows the staff to enter areas that are oiled for the purposes of shoreline assessments and cleanup activities. SCAT teams perform reconnaissance on shoreline areas that may be impacted by oil products. Any product identified is quantified and reported back to Incident Command in Mobile, AL. Each team consists of a state representative (DEP), federal representative (Coast Guard, NOAA or EPA) and BP contractor. Participating in the SCAT surveys has allowed the staff to monitor sensitive areas within Franklin County and Gulf County; the two counties where ANERR, the St. Joe Bay Buffer Preserve and Central Panhandle Aquatic Preserves are located.

The Reserve staff has also been participating in sea turtle nest relocations. In early July, NOAA's National Marine Fisheries Service, USFWS and FFWCC decided to relocate approximately 800 Loggerhead (*Caretta caretta*) nests from the northern Gulf coast to the east coast of Florida near the Kennedy Space Center. This posed a significant challenge to the Reserve since nine miles of beach on Little St. George Island are only accessible by boat and ATV. Several staff members coordinated Monday, Wednesday and Friday mornings to move nests. Several other groups coordinated on these mornings to move nests from other



*As nature inspires you, capture your thoughts on paper*

# Writing About Nature

*By Erik Lovstrand, Education Coordinator*

Every now and then when we are in the outdoors, nature blesses us with a special moment of inspiration that we wish we could hold onto. Something in nature will touch our heart and it would sure be nice if we could capture the magic for more than a fleeting moment. But alas, time marches on and most often we allow thoughts of other pressing matters to take control and drive the wondrous thrill that nature has provided from our consciousness. Well, I had faced this situation many times myself and I finally decided to do something about it. I knew that I had been vicariously touched by nature

through the eloquent writings of such authors as Rachel Carson, Aldo Leopold and Emily Dickinson, so I simply decided to write something for myself. Something I could look back on someday to re-live or “re-love” a moment in time that was special. And do you know what? It actually works! With no high level of training in the writing arts I simply keep a pad of paper and writing tools handy for when the spirit moves me. Sometimes it happens on my long commute to or from work. Sometimes it happens when I am hunting or fishing. It has even happened by simply seeing nature’s splendor in my own backyard. The trick is to have materials handy because if you are open-minded when in nature, you will have plenty of opportunity for inspiration. You don’t have to exhibit perfection in any particular style or even in grammar or punctuation. Simply write to capture what you are feeling about a special place or point in time. Many months or years later when you read the words a strange kind of magic will transport you back and provide the thrill again and again.

In my case, I decided to write in poetic verse and from the little knowledge I possessed regarding poetry I knew the form could be whatever I liked. Another style used by many involves keeping a nature journal. One of my earliest verses is *Monarchs*, written in 1995 (see poem at left). Every time I read it I visualize the annual migration of fall butterflies winging their way across Apalachicola Bay and out over the Gulf of Mexico, a favorite natural event and time of year for me.

You can even make up words if you want (metamorphosize? Hey, it rhymes with butterflies). I challenge you to make the effort to keep a pad and pen handy when you are apt to be inspired. It’s not all that difficult and the rewards are worth the effort. You don’t have to write for anyone



## ***Monarchs***

*Monarchs are an inspiration, flying to another nation  
‘Cross the Gulf of Mexico, with the trade winds on they go  
Wintering in warmer climes, winging north in better times  
Where they seek and find milkweed, larval food is what they need  
To grow and metamorphosize, into next year’s butterflies.*

but yourself but if you would feel so inclined to share something with our readers, in the hopes that another might be inspired, I would love to get a small sample of your work (no more than 100 words please). I will select a few shorts and publish them in our next winter issue if you get them to me by November. Send submissions to Erik Lovstrand, Education Coordinator, Apalachicola Reserve, 261 Dr. Frederick S. Humphries Street, Apalachicola, FL 32320 or email them to erik.lovstrand@dep.state.fl.us



Restoring fire regimes allows for the flourishing of rare flowering plants such as Panhandle Spider Lily (top right) and Tropical Waxweed (bottom right).

### Fire management benefits rare species

# Flames to Flowers

By Jean Huffman, Stewardship Coordinator

An important part of the Reserve's Stewardship program is restoring natural fire regimes. Frequent fires moved across this landscape for thousands of years and are as important as rainfall to many of the plants and animals. Fire is nature's lawnmower and keeps the landscape open and grassy allowing the rich diversity of flowering marsh and pine savanna plants to flourish. Without regular fires, trees, shrubs, and vines take over, making a thicket that blocks light to the ground and smothers the many species of flowering plants out of existence.

The Reserve conducts burns throughout the winter, spring and summer and concentrates as many as possible in the natural lightning season. We now burn much of the lands every 1-4 years, a frequency seen before fire was suppressed (this is known from tree ring research on old growth stumps from the 1500s through the 1800s).

One remarkable result of restoring a natural fire regime is the explosion of populations of rare plants. Most of the rare plants are endemic to this region and are fire-dependent. Following a first burn we find scattered plants and these then multiply with each subsequent burn. Many rare plants, including federally-listed Florida skullcap (*Scutellaria floridana*), violet-flowered butterwort (*Pinguicula ionantha*), state-listed tropical waxweed (*Cuphea aspera*) and panhandle spider lily (*Hymenocallis henryae*) grow only in the transition between pine/palmetto savanna and forested swamps. These fires kill back invading trees and shrubs and allow the super-diverse cover of herbaceous plants, including 16 listed rare species, to thrive.

Another result of our lightning-season fires is the flowering of species like Blazing Star, Deer-tongue and Flatwoods Sunflowers from September through November. Fire stimulates blooming in wildflowers and the most common grasses, Wiregrass and Pineywoods Dropseed. This flowering occurs at the same time the migrating butterflies move through this area, providing a rich source of nectar missing in unburned areas.

We hope to keep the vital public support and resources needed to continue to maintain and strengthen our burn program and see more and more of the lands we manage flowering into the future.



# Living Shorelines Initiative

*By Rosalyn Kilcollins, Coastal Training Program Coordinator*

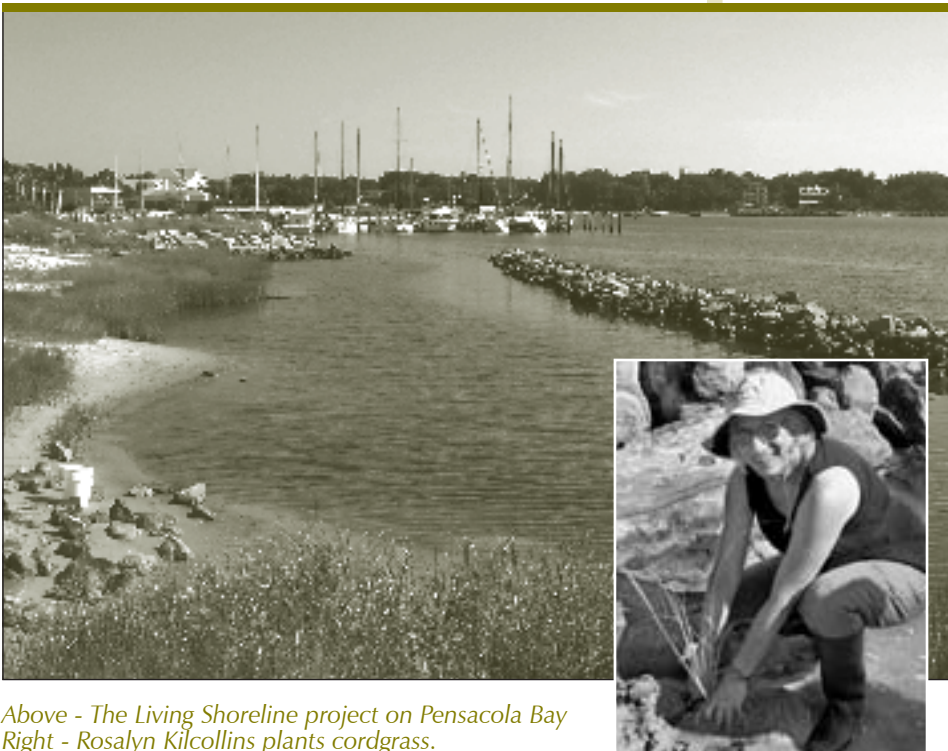
A living shoreline is one restored with native plants that naturally grow in the region as an alternative to seawalls and other shoreline hardening methods and is often used to control erosion. While growing in popularity, their success depends on several factors including wave action, depth, soils, slope, salinity and planting choices. Training programs, research, and publications around the country are helping people decide when, where and how to create living shorelines.

In Northwest Florida, Sea Grant Marine Extension Agents, US Fish and Wildlife Service's Coastal Program in Panama City, Florida DEP's Ecosystem Restoration Program, the Apalachicola National Estuarine Research Reserve (NERR), marine contractors and others are working on a Living Shorelines Initiative effort. They are developing training materials, a guidebook and

workshop presentations. The guidebook will be available in an electronic format. The main audiences are contractors, shoreline property owners and permitting staff. Participants from other parts of Florida are providing input so that the guidebook can be modified and updated to include other regionally specific information and techniques.

Two workshops on techniques for creating Living Shorelines were offered by the CTP in partnership with the Gulf of Mexico Alliance (GOMA) Regional Training Coordinator, DEP's Ecosystem Restoration Program, US Fish and Wildlife Service Coastal Programs and Sea Grant Marine Extension. Held in Pensacola and Apalachicola, both workshops included site visits. The Apalachicola event included planting about 100 smooth cordgrass plants at a Franklin County shoreline project.

These were two of the five Living Shorelines workshops provided by the Gulf Coast NERRs' CTPs and the GOMA



*Above - The Living Shoreline project on Pensacola Bay  
Right - Rosalyn Kilcollins plants cordgrass.*

Regional Training Coordinator. The workshops educated contractors and shoreline property owners on living shoreline methods and helped to fulfill GOMA Action Plan II tasks for the Community Resilience and Habitat Conservation and Restoration Teams. Workshop presentations and additional resources are available online at [GulfAllianceTraining.org/workshops.aspx](http://GulfAllianceTraining.org/workshops.aspx).

The Apalachicola Reserve is partnering with Apalachicola Riverkeeper, Franklin County and others on a living shoreline project at Indian Creek Park. The former RV park is owned by Franklin County and provides public access to the bay. The existing bulkhead and debris was removed, a more natural shoreline slope was created. An offshore breakwater was built of marsh grasses will be planted and the upland park will be landscaped with native plants. The goal is a more scenic park that provides additional habitat for wildlife, improves water quality by adding marshes to filter water and protects against erosion.

The DEP's Office of Coastal and Aquatic Managed Areas (CAMA) staff - Apalachicola NERR's Research, Stewardship and Coastal Training coordinators, Apalachicola Bay Aquatic Preserve manager, and St. Joseph Bay State Buffer Preserve staff, are assisting with site monitoring and design advice. Gulf of Mexico Alliance Florida Educator, Pamela Phillips is providing technical assistance on landscaping. In the spring 2009, staff made a photo record of changes and worked with high school students from Franklin County Consolidated School on initial site monitoring and water sampling. The CTP coordinator talked to students and teachers about science fair project ideas, participating in the site monitoring and marsh planting.

This site was visited during Apalachicola's Living Shorelines workshop and will be used as a demonstration for future Living Shoreline workshops.

*Aquatic Preserves, from cover*

Oceans and Coastal Council. This provides for a system of significant protection to ensure that our most popular and ecologically important underwater ecosystems are cared for in perpetuity. Each of these special places is managed with strategies based on local resources, issues, and conditions. CAMA is a strong supporter of the NERR system and its approach to coastal ecosystem management. The State of Florida has three designated NERR sites, each encompassing at least one Aquatic Preserve within its boundaries. These Aquatic Preserves provide discrete areas designated for additional protection beyond that of the surrounding NERR and may afford a foundation for additional protective zoning in the future.

The Central Panhandle Aquatic Preserves include Alligator Harbor (14,366 acres) and Apalachicola Bay (80,000 acres) in Franklin County; and St. Joseph Bay (73,000 acres) in Gulf County. Each of these preserves is ecologically important in that they support many commercially and recreationally valuable species including oysters, shrimp, blue crabs and a variety of fish. Along with being designated as aquatic preserves, these areas are also designated as Outstanding Florida Waters (OFW), Class II Shellfish Harvesting Waters and Gulf of Mexico Ecological Management Sites (GEMS).

Local preserves protect the region's biological diversity, as well as, the economic value of the natural resources. Research and monitoring are the foundation of resource management and provide us with important information about the natural processes in a system and the effects that our activities may have on a particular resource. From regular monitoring activities we can determine an improvement or decline in these environmental conditions and make important management decisions based on these findings. Current projects include seagrass monitoring, water quality monitoring, scallop spat recruitment monitoring, sea turtle nest monitoring, habitat mapping, and species inventory. Through effective management practices, education and outreach, environmental research and monitoring, partnerships and volunteers, these important areas and their resources will be protected for generations to come.

For more information on your local aquatic preserves please visit our website at [dep.state.fl.us/coastal/programs/aquatic.htm](http://dep.state.fl.us/coastal/programs/aquatic.htm).



*Education and public outreach efforts provide a living lab for life-long learning experiences.*

*Uncertain Season, from page 3*

locations within or adjacent to the Reserve and deliver them to the holding facility located at the Eastpoint office of ANERR. Drop-offs are made throughout the day and pick-up is late in the evening. Transportation across the state is provided via a FedEx truck. Since there has been much concern about the trauma of transporting the eggs across the bay on a boat, FWC has reconsidered and has decided to allow the nests on Little St. George Island to hatch in situ. The Reserve and Buffer Preserve offices continue to be holding locations for nests awaiting transport to the east coast.

The Reserve staff prepares for the next steps of NRDA including shoreline assessments and pre-assessment sampling of water and sediments. Both of these activities will document the amount of impact to the area at a particular point in time and will be repeated until restoration activities commence. Impacts to wildlife will continue to be monitored; particularly listed species. The Reserve staff is also working closely with several agencies and universities on NRDA-related research projects that will flesh out much of the work already being performed by state agencies.



*Research staff collect sea turtle eggs in an effort to protect them from oil washing up on area beaches.*



# A Local Perspective

By Tara Klink, Reserve summer intern

To many people it might not seem like such a blessing to grow up in a town where there are no stoplights or chain stores, only seafood houses and docks along the main highway. But for most of the locals it's a way of life and we wouldn't have it any other way.

I was born and raised in Eastpoint and from the beginning I was educated on the importance of Apalachicola Bay and River. The heart of my community relies on the productivity of Apalachicola Bay for its livelihood, including most of my friends and family. As a young child, my parents created a strong background for my love of nature by taking me to the Reserve's Education Center to learn about the river and bay system and its inhabitants, to see the salt and fresh water tanks and to learn about the area we would be inheriting.

By the time I graduated from Apalachicola High School I knew I wanted a career that would allow me to dedicate my time to saving and protecting this unique ecosystem. Upon graduation, an organization tied to the Reserve called Friends of the Reserve awarded me with the Steve Malvestuto Scholarship to help fund my future in a scientific field. Now that I am a semester away from earning my degree in Environmental Science from the University of West Florida, I have had the opportunity to work at ANERR as a summer intern. My focus has been surveying and moving the sea turtle nests, but I have also participated in taking water and sediment samples, trawling adventures, dune surveys and much more. It is hard to explain how rewarding it feels to be able to help baby sea turtles thrive on the same beaches I've grown up on myself. I might not spend my day on the oyster bar or my nights on a shrimp boat, but I do understand that the people of this community are just as important as the marine life and by protecting it we are helping save our heritage for the generations to come.



Eastpoint native Tara Klink, works this summer at the Reserve and is studying Environmental Science at the University of West Florida.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email Address \_\_\_\_\_

Student@5/yr       Family@\$15/yr       Corporate@\$250/yr

Individual@\$10/yr       Commercial@\$25/yr       Lifetime@\$250

**Join the Friends of the Reserve**, a non-profit organization providing support to the Apalachicola National Estuarine Research Reserve. Be a part of a group of people directly involved with the Reserve's research, stewardship and education programs. To join, complete and mail this form, along with your check to: Friends of the Reserve, P. O. Box 931, Apalachicola, FL 32329.

The Reserve was established in September 1979 as a cooperative effort between Franklin County, the State of Florida and the National Oceanic and Atmospheric Administration and is administered by the Florida Department of Environmental Protection. The Reserve purpose is to support research relating to the Apalachicola River and Bay estuarine system, disseminate research information, educate the public about estuarine processes, and encourage resource protection. Visit the Reserve's websites at [www.nerrs.noaa.gov/Apalachicola/welcome.html](http://www.nerrs.noaa.gov/Apalachicola/welcome.html) and [www.dep.state.fl.us/coastal/sites/apalachicola/](http://www.dep.state.fl.us/coastal/sites/apalachicola/)

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