

Field Notes

News from the Panama City Ecological Services Field Office



Through the Eyes of Students

by Paul Lang

As I sit in my office contemplating this article, I look around and photographs surround me: photos of my family, photos on natural resource books, photos of places I have been...

Each of them convey a message, tells a story. A story that can move us: bring tears to our eyes, causes our hearts to soar with joy or even inspire us to action. Our *EyeOnNature* contest was born from this notion; however, it is not the whole story. Nature photography contests are a dime a dozen and we wanted to do something a little different. We hear children are becoming disconnected with nature. Not surprisingly, they are spending more and more time engaged in technology related activities and less and less time just exploring and investigating nature.

Throughout the natural resource world we have been called to strive to "fix" this. Our goal, therefore, was to institute a contest that reconnected students with nature while leveraging their propensity for technology. So, back in April we set out to establish a nature photo contest that brought these worlds together: photography, nature and technology. We created the typical nature photo categories: Landscape, Wildlife and/or Plants, People in Nature and added a digitally manipulated/created category to reach out to the technology savvy students.

EyeOnNature was an effort to get student (local middle and high school age) to go outside, into their backyards, to a state park or natural area and reconnect with nature. We asked students to show us the wonders of nature that captivate their hearts and minds (a delicate flower, a beautiful sunset/sunrise, a person fishing, or a vision of nature they create in their mind's eye through a digital, photographic process).



The grand-prize winning photograph, Jason Tuno



Ecologist Paul Lang and contest winner Jason Tuno. photo: Denise Rowell



Contest winners pose with the Bay County School Board. photo: Denise Rowell

The contest was a great success and we were amazed by the quality of entries. As we look to hold the 2nd annual *EyeOnNature* contest, we will continue to seek out additional ways to meet the students where they are at by expanding the contest into other technologies. By doing so, we hope to touch more students and hopefully spark a greater awareness and appreciation for nature. ●

2012 Bat Blitz Held in Florida's Apalachicola National Forest

by: Mary Mittiga, Ecologist, Panama City Field Office.

In the midst of flashing lightning and fireflies, the night sky of the Apalachicola National Forest also saw the flicker of scientists' headlamps as the 2012 Bat Blitz was held there over five days in May. Twelve teams of five biologists conducted nightly surveys to identify the forest's bats and test their overall health. A special concern was checking for the presence of white-nose syndrome – a fungal disease that has killed more than a million hibernating bats in the U.S. since 2006. So far all indications are the bats in northwest Florida are healthy. It was the Southeastern Bat Diversity Network's 11th annual bat blitz. This year's event was hosted by the Florida Bat Working Group with participation from the U.S.



Biologists check health of bat, photo:USFWS



Brazilian free-tailed bat, photo: FWC

Fish and Wildlife Service's Panama City Field Office.

To kick-off the event, a Bat Fest was held at Wakulla Springs State Park with live critters, children's activities, and abundant information to increase public

awareness of the importance of bats. Did you know a recent study found that by eating pest insects, bats provide a benefit to agriculture of about \$22.9 billion a year? To capture the bats, scientists set mist nets in their favorite feeding locations such as river corridors canopied by trees. Wherever there are juicy bugs, you may find bats! The blitz recorded 246 bats of 8 different species ranging from the common (Seminole, evening, red, and southeastern bats) to the more unusual (tricolored, big brown, Rafinesque's big-eared, and Brazilian free-tailed bats). The blitz provides valuable information on the habitat and food preferences of these oft misunderstood animals that will assist in future conservation efforts. ●



Students stabilize sand dunes with plants photo: Melody Ray-Culp

Grasses in the Classes Brings Kids Outdoors

by: Melody Ray-Culp

The Florida Panhandle Coastal Program helped the West Florida Regional Planning Council do an outreach project that created community partnerships with schools to grow native coastal plants for use in living shoreline

restoration projects. Grasses in Classes programs were established at 20 schools (elementary, middle, and high) in five northwest Florida counties.

Grasses in Classes is a hands-on, interactive education program that enables students to play a direct role in shoreline stabilization and/or restoration projects. This project was modeled after the Baldwin County Grasses in Classes program, which was started in January 2005 in Alabama, and is based on a program developed in 1998 by Maryland's Department of Natural Resources and the Chesapeake Bay Foundation. Another current program is the Tampa Bay Watch Grasses in Classes Program. In

these programs, teachers are given all equipment and instructions required to grow grasses at their schools. With guidance from project leaders and teachers, the students maintain and monitor their nurseries throughout the school year. Grasses are then used for shoreline stabilization and/or restoration projects. By studying the ecological importance of coastal plant species and by participating in the restoration, students gain a sense of stewardship and awareness of the sensitive and fragile community in which they live.

A nursery production pad was constructed at 16 of the schools for the propagation of native salt marsh and dune vegetation. Greenhouses were also constructed at five of the schools. Almost 4 miles of living shorelines were planted, covering nearly

1.5 acres. Students helped monitor the sites before and after restoration. A total of 18 teachers were trained in plant propagation techniques of coastal plants, and 20 Master Gardener and Florida Master Naturalist volunteers were trained in site assessment. The project also modified the extensive curriculum developed by the Baldwin County Grasses in Classes program to ensure compliance with the Florida Sunshine State Standards. ●

Investigating causes of low recruitment to inform strategies for conservation and management:

the case of Ribes echinellum (Miccosukee gooseberry), in Florida

by: PCFO botanist
Dr. Vivian Negrón-Ortiz

A bee visiting flower of *Ribes echinellum* (Miccosukee gooseberry), a federally threatened shrub with only two remaining populations in Florida and South Carolina. The Florida population is declining, no seedling recruitment is observed, and ex-situ germination attempts have failed. To investigate this reproductive failure, FWS botanist Dr. Negrón-Ortiz designed a study using microsatellite markers to assess genetic variability and identify genets (clones). Preliminary results show low genetic diversity for both populations and higher clonality in SC. The identified genets are used as pollen donor/recipients to test whether viable seeds can be produced by cross-pollinating genets. Information from these studies will allow us to ascertain if plants from the South Carolina population are needed to enhance seed production, and which genets are priorities for conservation. ●



Natali Miller, Todd Engstrom, and Vivian Negrón-Ortiz conducted hand-pollination experiments in Florida. photos: V. Negrón-Ortiz

Fish and Wildlife Service Issues Biological Opinion on the Corps' Reservoir Operations in the Apalachicola-Chattahoochee-Flint River Basin

by: Region 4 External Affairs

The U.S. Fish and Wildlife Service has determined the U.S. Army Corps of Engineers' interim plan for operating Jim Woodruff Dam (Lake Seminole) on the Apalachicola River will not threaten the continued existence of federally protected freshwater mussels and the Gulf sturgeon fish in Florida.



Biologist Karen Herrington holds a threatened Gulf sturgeon, one of the species that is part of the conflict over limited water resources between upstream and downstream interests in the ACF Basin. photo: USFWS

The Biological Opinion released to the Corps today includes an Incidental Take Statement, which provides the Corps an exemption from take under the Endangered Species Act for harming protected species. In return, the Corps has committed to several actions to minimize the loss of mussels. Those include monitoring to evaluate the impact of dam operations.

“We want to thank our Corps colleagues for working with us to balance protection of our natural resources with the myriad of users that rely on the Apalachicola-Chattahoochee-Flint River Basin from metro Atlantans to Florida oystermen,” Southeast Regional Director Cindy Dohner said. “By protecting river flows for the people who depend on and enjoy the Apalachicola River and Bay, the Corps is also conserving these endemic freshwater mussels.”

The Apalachicola River, which is formed by the Chattahoochee and Flint Rivers in Georgia where they meet in Lake Seminole, is home to three freshwater mussel species listed under the Endangered Species Act. They are the threatened purple bankclimber and Chipola slabshell, and the endangered fat threeridge. The Gulf sturgeon, which is listed as threatened, spawns in the river below Woodruff Dam at Lake Seminole. But the fish should not be adversely affected by the Corps' reservoir operations because protective measures are in place.

The Corps' Revised Interim Operating Plan calls for reducing the flow of water from Woodruff Dam into the Apalachicola River to as low as 4,500 cubic feet per second (cfs) during an extreme drought, to allow the reservoirs to recover. Current drought conditions in the ACF Basin triggered drought operations on May 1 in order to conserve water in upstream reservoirs that include Lake Lanier in metro Atlanta. The Corps has been releasing about 5,000 cfs of water into the Apalachicola River.

The Corps has operated with a minimum flow from Woodruff Dam at 5,000 cfs since 1957, officially adopting it in 1989 with the draft Water Control Plan for the basin. The primary purpose of the minimum release is to conserve water; to ensure the Apalachicola-Chattahoochee-Flint River Basin can continue serving a variety of water needs for the millions of people who depend on it for their drinking water, electric power, crop irrigation and other needs.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. The Service is known for its scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service.

For more information on our work and the people who make it happen, visit www.fws.gov. ●

Meet the Biologist: Kristi Yanchis

I went to school at the University of Florida (GO GATORS!!) and got my bachelors degree in Environmental Policy. While in school, I did a semester abroad in Australia, and it was one of the most memorable times of my life. After graduating, I became an ecological consultant for a small firm in the Orlando area. I worked for a couple of different firms before getting a job with the USFWS office in Vero Beach in 2003. I started off as a term employee working on Everglades Restoration issues, then became permanent in the ESA Section 7 regulatory program in 2006. I recently moved to the Panama City Field Office to do a wider variety of duties. Those duties focus on the three species of endangered beach mice in the



Florida panhandle. I have been married to Robert Yanchis for 10 years. We have two kids; six year-old Tyler is in the first grade and three year-old Ashlyn is in preschool. ●

Tastes Like Chicken!

By: Channing St. Aubin

The USFWS Region 4 Dive Team has returned from Key West, FL for advanced dive training and mandatory, annual skills evaluation. At each of the workshops, the team participates in a work project. This year, the Region 4 and 6 dive teams cooperatively examined the effectiveness of *Pterois volitans* (lionfish) eradication from reef habitats.

Prior to the work on the lionfish project, the teams were briefed on FWS dive safety requirements, and risk management. The remainder of the first day was used to demonstrate competency and evaluate dive skills such as compass orienteering, rescue dive training, swim tests, doff and don equipment, and proper buoyancy. Team members were also trained on spearing techniques and allowed time for underwater practice on stationary targets.

Day two, the first project day, opened with guest lecturer Lad Akins from REEF.org discussing



PCFO Divers Channing St. Aubin and Bill Tate considering the edibility of lionfish. Do not try this at home! – both divers have been trained to handle lionfish. photo: FWS

the ecology, biology, and proper handling techniques for lionfish. For those unfamiliar with lionfish, they are a native of the Indo-Pacific introduced into south Florida in the 1990's. Since then they have expanded their range throughout the Caribbean and Gulf of Mexico and as far north as Massachusetts on the east coast. Lionfish are a voracious predator and have venomous spines in their dorsal, anal, and pelvic fins which prevent predation by most reef-fish. Lionfish control efforts are underway throughout the southern Atlantic, Caribbean, and Gulf of Mexico to prevent overpopulation by lionfish and to protect the native reef communities. Following Mr. Adkins' presentation, buddy teams were established and each demonstrated newly acquired skills on local reefs with a two tank dive. Even though the visibility was poor for Key West standards (< 15 ft.), teams went head to head trying to eradicate the most lionfish. With visibility improved to greater than 40 ft., the third day of training was devoted to three dives on gorgeous natural coral reefs and ledges; however few lionfish were encountered until the third dive. The final training day was spent in the classroom, certifying all divers in administration of emergency oxygen, cardiac pulmonary resuscitation (CPR), and emergency first aid.

Overall, the lionfish density was lower than we expected. However, the probability of encountering lionfish on every dive was higher than we expected. The overall effectiveness of spearing lionfish is very good. Questions remain: How are lionfish altering the ecosystems in Florida? Are natural reefs the preferred habitat? Based on facts produced by USGS, NOAA, REEF, and others, lionfish densities can reach over 200 adults per acre. In the Florida Keys, that is a lot of area to cover!! There are many reports of lionfish in the Florida Panhandle, which has more artificial structures than natural reefs, with some reports observing over 100 adults on just one structure. From a fisheries perspective, lionfish may be more detrimental to recreational fisheries in areas that are more reliant on artificial structure, that are patchier in nature and provide suitable habitat; which could then decimate targeted recreational species such as grouper and snapper complexes. My next big question is "Can I make a living and support my family eradicating lionfish?" ●

New Program Aims to Bring Diversity to Service

The Panama City Field Office (PCFO) participated in a pilot program to help attract diverse candidates to the U.S. Fish and Wildlife Service. Dr. Kirk Cammarata spent six weeks at the PCFO as a part of this program. Dr. Cammarata is an Associate Professor of Molecular and Plant Biology at Texas A&M University-Corpus Christi. During the fellowship, he became familiar with the day-to-day operations of the Service. Some days were spent out in the field, taking surveys or collecting data. Other days were spent in the manager's chair, learning how to carry out the conservation mission of the Service. Through the program, Dr. Cammarata was able to get an understanding of our commitment to natural resources, our partnerships, and the legal authority under which we work. Now, he will take his knowledge back to his students, who will get new exposure to careers with the U.S. Fish and Wildlife Service. The pilot program was a success, and we hope it continues in the future! ●



*Dr. Cammarata goes sturgeon sampling with the PCFO staff
photo: Dr. Cammarata*

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