#### **U.S. Fish & Wildlife Service**

## **Field Notes** News from the Panama City Ecological Services/ Fish and Wildlife Conservation Field Office

### **Okaloosa Darter Making a Comeback, Thanks to the Power of Partnerships**

The U.S. Fish and Wildlife Service is reclassifying the Okaloosa darter (Etheostoma okaloosae) from the status of endangered to threatened under the Endangered Species Act, saying that the population is being managed so well, the small fish is making major strides in its fight for recovery. The announcement was made in March by Acting Director Rowan Gould at a ceremony at Eglin Air Force Base to celebrate the accomplishment and honor those involved.

"With the help of our partners at Eglin Air Force Base, the Florida Fish and Wildlife Conservation Commission, U.S. Geological Survey, Loyola University and so many others, I am thrilled to say the Okaloosa darter is no longer in danger of extinction," said Rowan Gould, acting director, U.S. Fish and Wildlife Service. "The downlisting is a result of tireless work to restore the habitat, and a strong, successful partnership."

Originally listed as endangered in 1973, the Okaloosa darter is a small, perchlike fish known to occur only in six clear stream systems draining into two Choctawhatchee Bay bayous in Walton and Okaloosa counties in northwest Florida. About 96 percent of this watershed drainage area is under the management of Eglin Air Force Base, as is most of the darter's present range. The remainder of the watershed and the species' range lies within the Niceville and Valparaiso urban areas.

Working in partnership, the Service, the Florida Fish and Wildlife Commission (FWC), and Eglin Air Force Base have accomplished a significant number of recovery efforts for the darter. Eglin's natural resource managers estimate that about 95 percent of the planned erosion control projects in darter watersheds were completed. Over a period of 18 years, the base restored more than 534 acres on 356 clay pit sites that proved the primary action in achieving the downlisting.

Panama City Partners biologist Chris Metcalf speaks with Assistant Secretary of

"We are dedicated to wildlife conservation at each of our installations," said the Honorable Terry Yonkers, Assistant Secretary of the Air Force for Installations, Environment and Logistics. "More broadly, the United States Air Force understands the vital importance of environmental conservation. We must continue not only to preserve the Okaloosa darter but to advance our efforts to preserve all wildlife that exists on our Installations."

the Air Force Terry Yonkers, credit Paul Lang.

Together with the FWC, Eglin AFB, Three Rivers Conservation and Development Council, the Service has removed or replaced many road crossing structures and manmade impoundments to allow for fish passage and proper stream function. For example, a crucial project outlined in the Service's Okaloosa Darter Recovery Plan, the Mill Creek stream restoration project, located on the Eglin Golf Course, has been completed. During initial construction of the golf course, the stream was substantially altered by culverts and other man-made impoundments. The FWC provided \$400,000 for the project, which was matched with funds from the Service's fish passage program.

Service biologists also worked with the City of Niceville to improve its wastewater collection system and install more appropriate culverts at a number of road crossings. (continued)





#### August 2011

#### Panama City Hosts Regional Green Infrastructure Course

After months of planning, a regional course on *Strategic Conservation Planning Using a Green Infrastructure Approach* was held from November 1-3, 2010, in Panama City, Florida. Green Infrastructure (a.k.a. "GI") is a collaborative method for land use planning. It brings together the many stakeholders that influence the both the green and gray landscape – transportation professionals, county planners, businessman, developers, tourism councils, and natural resource agencies – and challenges them to create a common vision.

A national course sponsored by The Conservation Fund has been available at NCTC for many years. There are several incentives for conducting a regional course!

- It can educate and engage your partners.
- It improves relationships by working in teams with diverse interests and goals.
- The training shows the possibilities. If other similar counties can plan and fund green infrastructure, why not in your county?
- Training is the first step toward developing and implementing a local GI.

The course had 30 attendees including local, state, and federal agencies, nongovernment organizations, and university faculty. One strong component of the course was the economics of GI and how it benefits communities. For example, Chris Bowles, Nashville's director of environment and sustainability, gave a talk on Community Economic Development and Place-making. Ramesh Buch, manager of the Alachua County Forever Program, provided a case study for their implementing their highly successful GI program. The course culminated with student teams creating and presenting their own green infrastructure network design. The course received a very favorable response - and culminated with students setting a goal to develop and implement a GI plan in northwest Florida.

### **Okaloosa Darter Making a Comeback (continued)**

Using innovative sampling and monitoring techniques, U.S. Geological Survey and Loyola University New Orleans researchers provided monitoring data that were used by the Service to support reclassifying the Okaloosa darter from endangered to threatened. For the past 18 years, this research team has monitored the Okaloosa darter, and its efforts have shown that the average number of darters has almost tripled at monitoring locations. Other partners in the restoration effort include the University of West Florida, University of Florida, and Florida Department of Environmental Protection.

Additional details and the rule can be found at <u>http://www.fws.gov/panamacity/</u>.

The Okaloosa darter does not meet the definition of an endangered species. An endangered species is defined as being in danger of extinction throughout all or a significant portion of its range. A threatened species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Reclassifying a species from endangered to a threatened designation is often reflective of recovery efforts reducing imminent threats and allowing populations to increase.



Acting Director Rowan Gould takes a look at an Okaloosa darter, credit Paul Lang.

The threatened status also offers additional flexibility in how the species is protected and managed for recovery.

Although the status of this species is changed from endangered to threatened, section 7 of the Endangered Species Act and regulations codified at 50 CFR 402 will still require federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of this species. In addition, the species remains fully protected under the Act as a threatened species.



Participants work on a class mapping exercise, credit Paul Lang.

#### **U.S. Fish & Wildlife Service**

### **Panama City Field Office Exposes Kids to Fishing**



Fishing poles are lined up for the children to try their luck, credit Frank Parauka.



Families gathered at the Panama City Pier for a day of fun, credit Frank Parauka.

Biologists with the Panama City Field Office had a blast participating in the Annual Kids' Fishing Clinic, sponsored by the Florida Fish and Wildlife Conservation Commission. This was the event's fifteenth year. Since 1996, more than 52,000 kids and 43,000 adults have participated in the statewide Kids' Fishing Clinics. The weather was scorching, reaching into the mid-ninetines. But, it did not discourage the 375 eager anglers who participated in this year's event.

Kids spent 10 minutes at various learning stations (fish habitat, fishing ethics, safety, knot tying and practice casting) after which they receive a free fishing rod and reel and tackle box and proceed on to try their luck at fishing.

Bait, drinks, hot dogs and ice cream are provided free to all participants. Volunteers receive a free shirt. We look forward to helping with this great event each year!

# PCFO Says Goodbye to Dear Friend



Thom Lewis, credit USFWS.

The U.S. Fish and Wildlife Service Panama City Field Office would like to pay tribute to friend and colleague Thom Lewis. Thom was a biologist for St. Vincent National Wildlife Refuge from 1992 to 2008. He passed away on June 23, 2011 in a plane crash on Eglin Air Force Base.

Thom worked closely with the Panama City Field Office, and was highly respected by conservationists throughout the panhandle. He will be greatly missed, and his dedication to wildlife will live on through the Service.



#### Relationships of Geomorphic Conditions and Woody Materials in Coastal Plain Streams

Student Conservation Association graduate student, Cameron Morris, stationed at the Panama City FO (supervised by Chris Metcalf), is working with Three Rivers Resource Conservation and Development Council, Inc. and Florida State University on a cooperative study to inventory and survey large woody material in relationship with fluvial geomorphic characteristics in coastal plain streams. Reference reaches from the Northeast Gulf Ecosystem are currently being studied from all major drainages: Escambia, Blackwater, Yellow, Choctawhatchee, Apalachicola, Ochlocknee, St. Andrew Bay, and St. Marks.

Following sufficient data collection and analysis of all major drainages of the Northeast Gulf Ecosystem, the recently restored Anderson Branch located on Eglin Air Force Base in Niceville, Florida, will be assessed based on its comparison to characteristics of large woody material surveyed from all reference reaches. Data collected will be used to identify wood density based on stream channel hydraulic geometry (i.e. width, depth, and cross sectional area) as well as to bankfull discharge and watershed area. By furthering our understanding of large woody material in stream channels, improved guidelines can be developed for designing natural channels, and more successfully preserving natural bank-full channel dimensions, habitat, stream channel stability and connectivity to their associated floodplains and wetlands.



Measuring protrusion heights of woody material at Moore Creek on Eglin Air Force Base, credit USFWS.

### Panama City Field Office Biologist Gets Prestigious Award

Frank Parauka is a living legend in both the Service and the fisheries community at large. Frank came to the Service through the Fish Hatchery System in 1968. After working at several hatcheries across the U.S., he finished his hatchery career diligently working his team at the Cohutta National Fish Hatchery in 1983. He arrived at the Fisheries Resources Office in Panama City Florida in 1984 and began developing a worldrenown fish monitoring and assessment program. He has helped countless National Wildlife Refuges, military bases, local communities, and even foreign governments assess and manage their fisheries resources.

Over his years of dedicated service, Frank has become an essential cog in the wheel that is the Service's Fisheries Program. Frank's name is synonymous with Gulf sturgeon status and trends research. For those of us that have had the pleasure of working with Frank on the rivers, we know his enthusiasm is unsurpassed and his passion inspirational; he is our sturgeon goodwill ambassador.

His annual sturgeon population monitoring projects are a sellout event with Service biologists, universities, NGOs, and volunteers clamoring to participate. When the great sturgeon hits the net and he hauls them into the tank for "work-up," you will hear him shout, Come On! It is contagious and motivates all who are lucky enough to be there.

### **Panama City Celebrates Endangered Species!**

The spring season is always the perfect time for the Panama City Field Office to reach out to the community, and get folks outdoors.

In celebration of Endangered Species Day, we sponsored an art contest for third and fourth grade students in Bay county. All entries were displayed at The Science and Discovery Center of Northwest Florida, formerly Bay County Jr. Museum.

The PCFO also participated in the first "It's A Spring Thing!" event at Camp Helen State Park. Participants set up an exhibit to introduce people to the Biologist-in-Training Patch Program.



Biologist Frank Parauka has been instrumental in the fisheries community along the Florida panhandle.

He has also been instrumental in passing on his enthusiasm for the natural resources on to younger generations. Over the years, he has mentored many students and volunteers, and loves taking them out in the field with him to show them a day in the life of a fish biologist! His ability to organize and inspire the work of a group of volunteers has been key to the mission of the Service and has facilitated the collection of a large volume of data that no one man could have done alone. His work for our fisheries resources has consistently represented the professional and generous approach that we all aspire to emulate. He is a model of service that we can all be proud to know is working with us to further the mission of the U.S. Fish and Wildlife Service.

Multiple agencies and area businesses participated. Emphasis was on education and learning to appreciate both natural and cultural resources that are found in Bay County and surrounding communities

Laura Jenkins also helped coordinate the second Migratory Bird Day Event in Bay County. The Northwest Florida Birding and Wildlife Festival was held at the Rivercamps Community and was enjoyed by many. Along with learning about migratory birds people had the opportunity to see many live birds and other wildlife.

#### **U.S. Fish & Wildlife Service**

#### Protection of Plants in One of the Biodiversity Hotspots in North America

The Florida Panhandle has been considered one of the five richest biodiversity hotspots in North America. More than 2,000 native plants have been reported for this hotspot, and 14 species have been placed under the Endangered Species Act. During 2007 - 2010, 5-year reviews were completed for ten of these federally listed plant species: Conradina glabra (Apalachicola rosemary), Euphorbia telephioides (Telephus spurge), Harperocallis flava (Harper's beauty), Macbridea alba (White birds-in-a-nest), Pinguicula ionantha (Godfrey's butterwort), Ribes echinellum (Miccosukee gooseberry), Rhododendron minus var. chapmanii (Chapman's rhododendron), Scutellaria floridana (Florida skullcap), Spigelia gentianoides (Gentian pinkroot), Torreya taxifolia (Florida torreya). For all 10 of these species this was the first status review, so they required analyses of a considerable amount of information generated since the species' listing.

A 5-year review requires that all current information be compiled, evaluated, and if available, compared to the species' last status review to determine whether its listing classification is accurate. After the reviews were completed, the recommendation was that no change be made to the status. The threats for some species, however, had increased; specifically the conversion of forests and wetlands to urban land uses was the most common threat. One species, Torreya taxifolia, is facing an imminent threat of extinction, but another, Euphorbia telephioides, has the potential to be delisted in the near future. This last species has been selected as a 'spotlight species'.

In general, these reviews were an important task for the recovery of these species because they helped prioritize the actions (e.g., research, management) that would likely lead to downlisting, delisting, or (in most cases) maintaining the species status.

For more information see http://www. fws.gov/panamacity/species/Listed%20 Species.htm.



### Watch for Nesting Birds!

We are all familiar with the saying "leave only your footprints on the beach." Well, its shorebird and water bird nesting season, so it's also time to "watch your footprints on the beach".

Snowy plover, Wilson's plover and oystercatchers already have babies running round on the beaches, feeding and roosting. They are often oblivious to threats, so please be aware and abide by posted signs, alerting the public that a beach is a nesting beach. Least terns and blackskimmers are very sensitive to disturbance, so

## here are a few things to keep in mind.

- Observe from a distance.
- Keep your pets off the beach.
- Don't feed the gulls (these predate on chicks).
- Pack out your trash to minimize attracting predators.
- If a bird begins to dive bomb you or conducts a broken wing display, you are near its nest. So, you should slowly back away from the area.

Enjoy the beach and the birds!!



Piping plover, credit USFWS.

# Meet Catherine Phillips: Deputy Project Leader for Fish and Wildlife Conservation Office

## Tell us a little bit about your background.

I started my career with the Service in 1998 as a Career Awareness Intern and transferred to the SCEP program following the internship. Participating in these programs launched me into an entirely different conservation-oriented career path. I pursued my PhD at Auburn University, where I examined the evolution of acoustic behavior in cyprinids. My research expertise involves understanding the behavioral ecology of North American freshwater fishes and how these patterns and life history strategies relate to conservation.

I continue to use bioacoustics as a tool to examine evolutionary patterns and resolve phylogenies, apply fish behavioral knowledge while making management decisions, and work towards development of new sampling techniques (i.e. noninvasive monitoring tools). However, as a behaviorist, nothing excites me more than the simple pleasure of sticking my head in the water and observing fishes in their environment. I have been known to remain in a patch of poison oak longer than I should have just because a listed species is spawning and I need to observe!

Prior to coming to Panama City, I worked as a research fish biologist at the San Marcos Fish Hatchery and Technology Center in Region 2. There I supervised biologists, advised graduate and undergraduate students, and investigated genetics, ecology, behavior, life history, and recovery issues for several listed spring endemics, including the fountain darter and Devils river minnow. I am excited to be in Region 4, and back in the Southeastern US, where the fishes are diverse and plentiful, and the employees are passionate about aquatic conservation!

#### What is your vision for the Panama City Fish and Wildlife Conservation Office?

As the new deputy, I aim to promote the great work the Panama City FWCO is already accomplishing to the Service and our many partners, reach out and integrate our office with the developing LCCs, and work towards building our science capacity. We are taking on

new species responsibilities such as working with Alabama shad, freshwater mussels, and the reticulated flatwoods salamander, adopting new technologies to map habitat and monitor species, reaching out to new partners to accomplish species conservation goals, and moving towards using our varied expertise and well-grounded science to assist with science needs in our geographic area.

What makes the Florida panhandle such a unique biological treasure? The Florida

panhandle is a unique biological

treasure because it hosts an incredible amount of habitat diversity within only one physiographic province (coastal plain) and a wide variety of associated endemic species. These include one of the largest concentration of seeps and springs, the coastal dune lakes with similar formations found in only a few other locations in the world, the incredible pitcher plant bogs, several old-growth long-leaf pine stands, the incredibly old bottomland hardwoods, and the relatively large tracts of undeveloped coastline.

## In your opinion, what is the key to successful conservation?

The key to successful conservation lies in the emphasis of local conservation. While protection of biodiversity hotspots (e.g. rainforest) is important, local habitats cannot be ignored. People have more ownership over natural resources that are



Credit Jon Hemming/USFWS

familiar to them and in their backyard. What is the true cost of removal of the wetland near your house, or developing a stretch of coastline? When people have ownership over local natural resources they are more likely to see consequences firsthand. For example, if we don't protect that relatively unknown species of mussel, we may not have any drinking water. Or, now that we preserved that plot of bottomland hardwoods adjacent to my subdivision, I can observe wildlife on a daily basis, and take nature hikes with my family. So embrace the natural resources that you value. Teach your friends, family, and neighbors about what is in their backvard and observe how infectious local conservation can become.

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