U.S. Fish & Wildlife Service August 2011

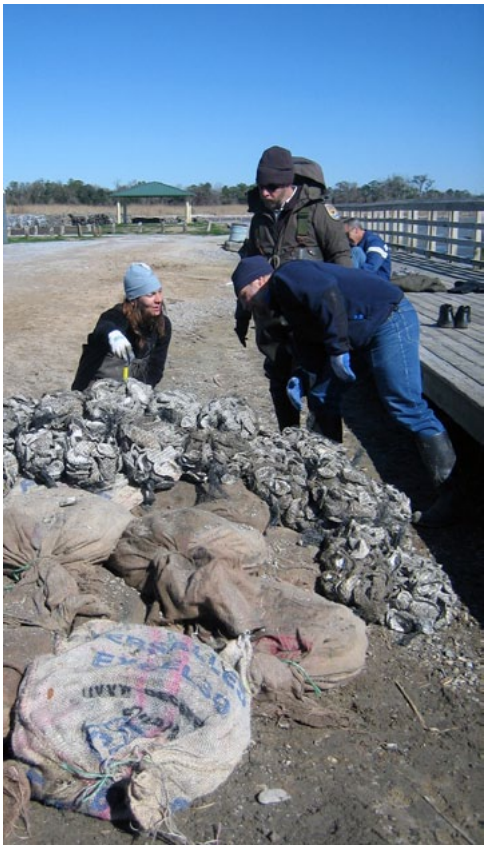
# Field Notes

*News from the Alabama Ecological Services Field Office*

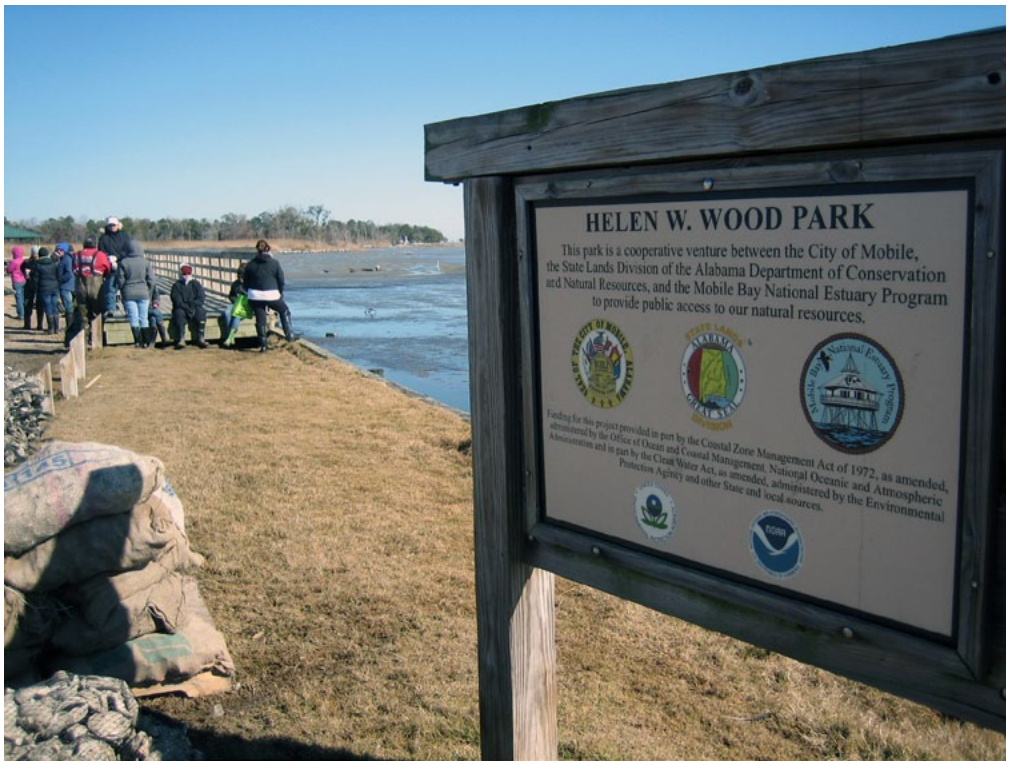
## The Service Joins Conservationists to Restore Coastal Alabama

On a sunny but cold Saturday in January, biologists with the U.S. Fish and Wildlife Service Alabama Field Office (AFO) spent their day off embarking on a special project. Biologists Patric Harper, Dan Everson, Sergio Pierluissi, and Jennifer Pritchett joined hundreds of volunteers along Mobile Bay to place oyster shells along the shoreline. The effort was a part of a massive project to build 100 miles of oyster reef, the first step of the **100-100: Restore Coastal Alabama** partnership.

Dan Everson is the AFO Deputy Field Supervisor. He assisted in the project by organizing volunteers, answering questions, and helping to carry and stack the thousands of bags of oyster shells, as well as participating in the kick-off event



*Northern Gulf Coastal Program Coordinator Patric Harper overlooks oyster shells.*




*Helen Wood Park in Mobile, Alabama was the site of the great oyster reef project. Both photos this page by Jennifer Pritchett/USFWS.*

celebrations. Everson says the project is a good start to rebuilding our resources, especially in light of the oil spill. "With our many partners, our office has been actively involved in Gulf Coast restoration projects for years," explained Everson. "But this was a particularly significant project because it has allowed a large number of people who don't work for local, state and federal agencies to put their passion and energy into restoring the resiliency and ecological integrity of a national treasure."

The **100-1000** partnership was formed by four conservation groups: Alabama Coastal Foundation, Mobile Baykeeper, The Nature Conservancy, and The Ocean Foundation. But these organizations can't restore the Gulf alone. The Service played a critical role in funding the project. Patric Harper is Interim Coastal Program Coordinator: "The Service was able to provide the base funding of $70,000 for this pilot project, which was actually approved before the Gulf oil spill," explained Harper. "The Nature Conservancy then acquired matching funds from the National Wildlife Federation."

Those dollars went to a beneficial cause. Volunteers braved the mud and freezing temperatures to toss 16,000 bags of oysters in the water….oysters meant to restore a beloved coastal area.

> "These projects will dampen waves, protect shorelines, and re-establish marshes that will expand nursery habitat for shrimp, fish, crabs, and other wildlife," said Harper.

The project wasn't a knee-jerk reaction to the Gulf oil spill. The Service committed to this and other similar projects well before oil washed ashore. Hurricanes, erosion, and development have taken their toll on Mobile Bay.

*(continued)*

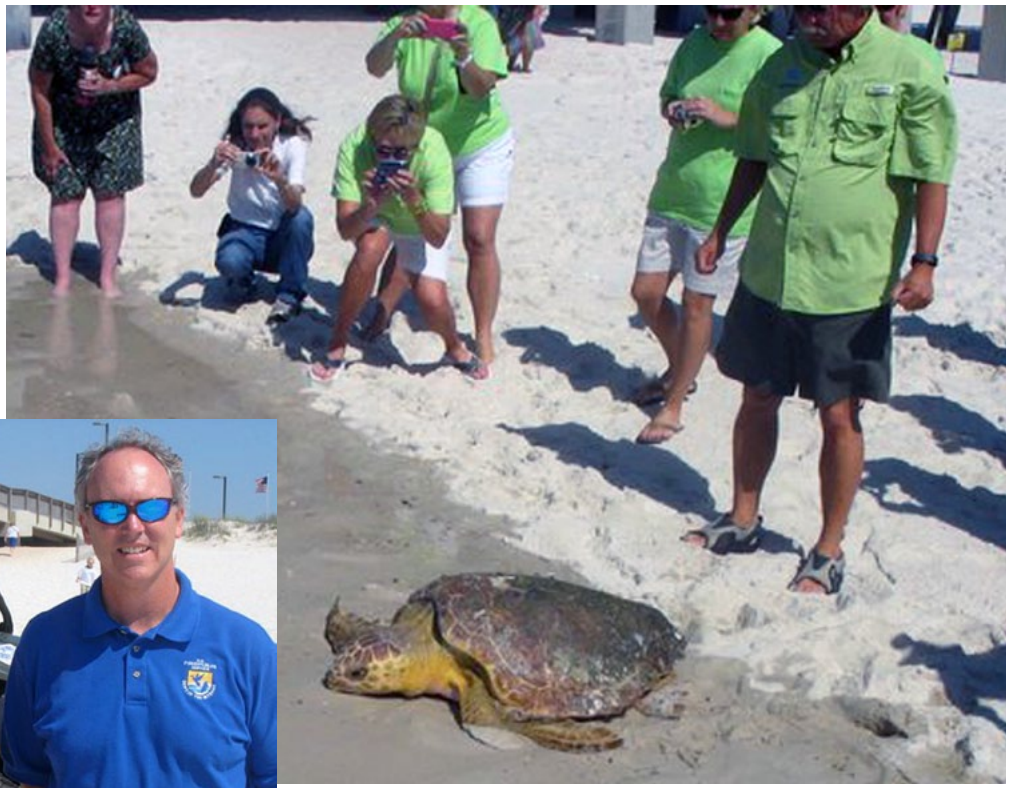
# The Service Joins Conservationists to Restore Coastal Alabama (continued)

That's why restoration is so important. "The immediate importance was restoring habitat at Helen Wood Park and preventing further erosion of the coastline," explained team leader and AFO biologist Sergio Pierluissi. "In a broader sense, the project educated hundreds of volunteers locally and from all over the country about habitat loss and restoration in the Gulf. Because it's a public park, it can be used as a demonstration of the possibilities for habitat restoration all over Mobile Bay."

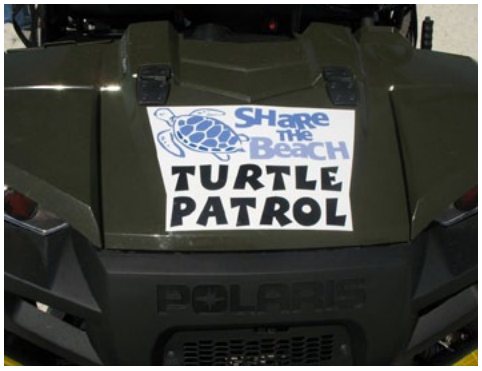
*Conservationists from across the region form a line to place oysters in Mobile Bay, photo by Jennifer Pritchett/USFWS.*

AFO biologist Jennifer Pritchett was overwhelmed by the response from volunteers: "I enjoyed working with such a diversity of volunteers and seeing everyone work so hard toward the same goal."

For many AFO biologists, their involvement was personal as well as professional. Everson wants to help keep Mobile Bay healthy for future generations. "I hope that in a hundred years, my great-great-grandchildren will be able to throw a cast net into Mobile Bay, catch a flounder and shrimp for dinner, marvel at the size of the oysters, watch a Great Blue Heron fly over a large expanse of marsh during a peaceful sunset, and thank the people who were alive in 2011 for having the courage and vision to protect and restore their little corner of the planet," said Everson.



*AFO Sea Turtle Biologist Dianne Ingram and Field Supervisor Bill Pearson*




*A loggerhead sea turtle is released back into the Gulf of Mexico after being rehabilitated in Florida. Share the Beach, Alabama Sea Turtle Stranding and Salvage Network, and the Service's Alabama Field Office all participated in the release. Photos by Denise Rowell/USFWS.*

The oyster restoration project is only the beginning of restoring Alabama's Gulf Coast. The partnership is committed to the area for the next three to five years….and the AFO will be an integral part of the work.

# Tulotoma Snail on the Road to Recovery

The U.S. Fish and Wildlife Service reclassified the tulotoma snail from endangered to threatened under the Endangered Species Act, declaring the snail is making major strides on the road to recovery.

"The improved status of the tulotoma snail is a direct result of coordinated efforts by the Service and its partners, including state and federal agencies, the Alabama Power Company, and the Alabama Clean Water Partnership," said Cindy Dohner, the Service's Southeast Regional Director. "The accomplishments of these partners show that the Endangered Species Act works."

*Photo by USFWS.*

The 2000 Mobile River Basin Aquatic Ecosystem Recovery Plan outlined recovery tasks and criteria to reclassify the tulotoma snail, only found in the Coosa and Alabama Rivers in Alabama, to threatened status. Recovery actions benefitting the species include discovery of additional populations, population monitoring, censuses of the snail's population and habitat, the establishment of minimum flows below Jordan Dam to improve habitat conditions, the implementation of pulsing flows below Logan Martin Dam to improve dissolved oxygen in that reach, and the development of watershed management plans to address pollution in the lower Coosa and Alabama River basins.

*Photo by USFWS.*

Because of these recovery actions, the known range of the tulotoma snail increased from less than two percent to ten percent of the species' historical range since its listing in 1991.

There is an increase in the extent and size of the tulotoma snail population in the Coosa River below Jordan Dam, due to the minimum flows released from the Jordan Dam by Alabama Power Company. Studies document an increase in the range of the Kelly, Hatchet, and Weogufka creek populations and expansion of the Kelly Creek population into the Coosa River below Logan Martin Dam. Monitoring of the Yellowleaf, Choccolocco, and Weoka Creek populations indicates they have remained stable since their discovery. Tulotoma colonies also were discovered at three new locations in the Alabama River.

The tulotoma is an ornamented, aquatic snail. It was listed as endangered in 1991. At that time, the tulotoma snail had disappeared from 98 percent of its historical range and was only known to occur in five localized areas in the lower Coosa River drainage in Alabama. These included one small reach in the main channel of the Coosa River below Jordan Dam and the lower reaches of four Coosa River tributaries: Ohatchee, Kelly, Hatchet, and Weogufka Creeks. The tulotoma snail disappeared from the Ohatchee Creek, the smallest of the four tributaries, because of pollution.

The status of the tulotoma snail is improving to such a degree it is no longer in danger of extinction in the foreseeable future. As a threatened species, the tulotoma snail will continue to be protected. Federal agencies will continue to be required to protect the species and its habitat. The range of the tulotoma remains highly fragmented and the populations are still vulnerable to pollution, contaminant spills, droughts, or other catastrophic events within their respective watersheds.

Please visit the Service's websites at http://www.fws.gov/ or http://www.fws.gov/southeast/.

# Sam's Legacy

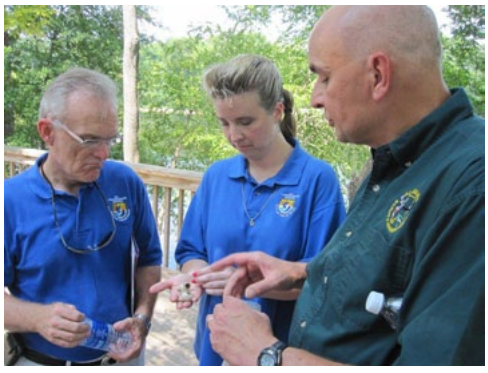
*Guest Columnist: Corky Pugh is Director of Alabama's Division of Wildlife and Freshwater Fisheries. He writes about his best friend and late Director of the U.S. Fish and Wildlife Service, Sam Hamilton, who passed away in February 2010.*

For all of us who knew Sam Hamilton well, Tuesday, July 19, 2011 should have been a banner day. The announcement of the down-listing of the tulotoma snail occurred in a well-planned and executed press conference in Wetumpka, Alabama overlooking the Coosa River.

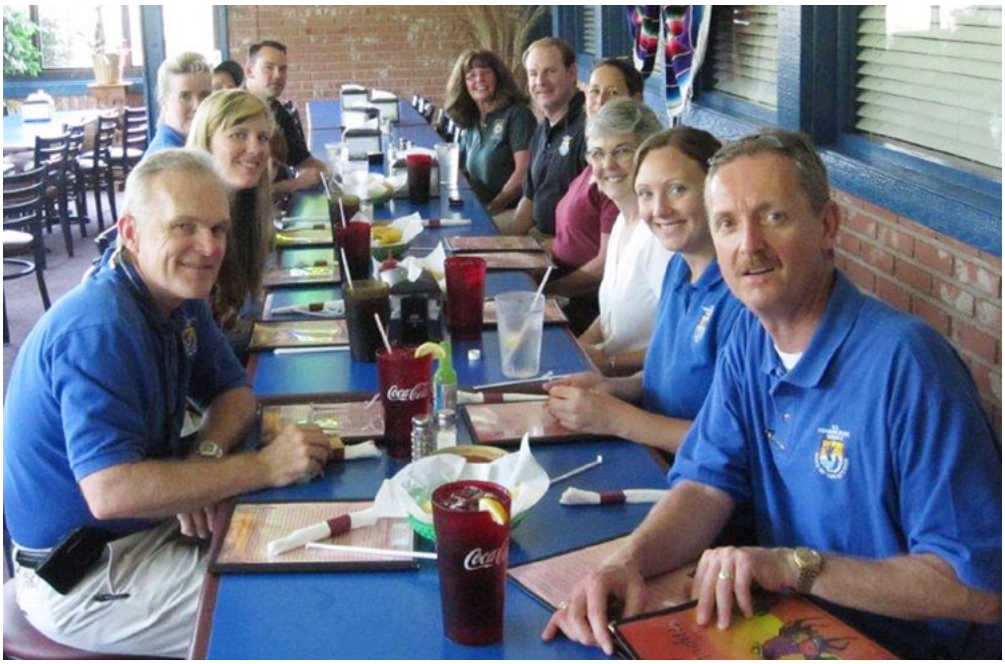
The whole occasion embodied everything that Sam was about: partnership, public engagement, giving appropriate credit to deserving people and organizations, restoring important species and habitats. But what many didn't realize was Sam's personal involvement in fiercely-fought battles over minimum flows in the Coosa, at a point in time when public and political support for such things was minimal.

Sam Hamilton's spirit was standing beside me under a shade tree, proudly watching the ceremony on July 19th. The legacy that Sam left lives on in every one of us, and in the success story in the Coosa River and a multitude of similar success stories.

*Late Service Director Sam Hamilton catches fish with Corky Pugh and Jay Slack. Photo provided by Corky Pugh.*



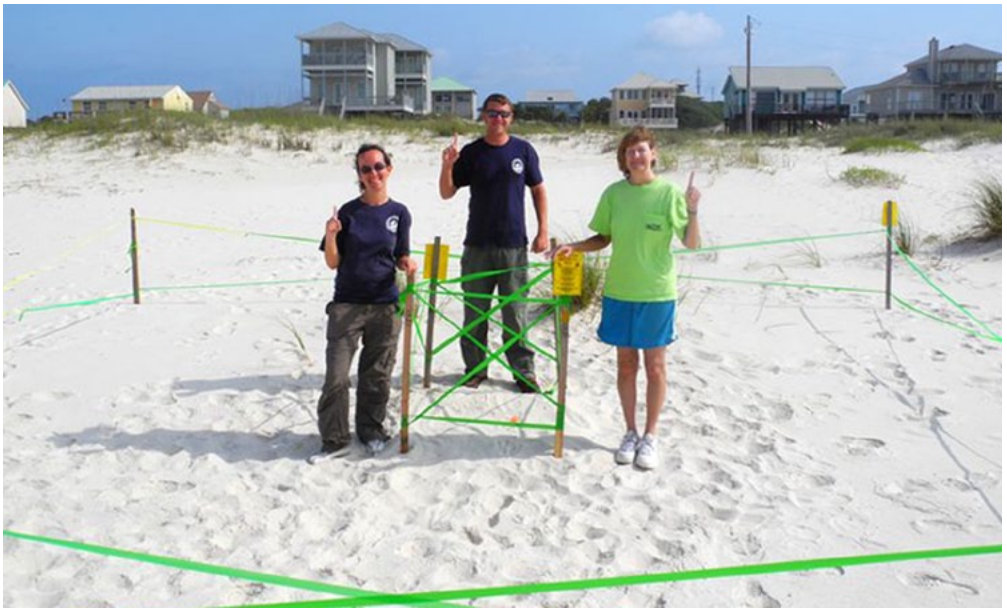
*The Service's Southeast Regional Deputy Director Mark Musaus looks at tulotoma shells with Recovery Coordinator Kelly Bibb and the state of Alabama's Paul Johnson, who leads the Alabama Aquatic Biodiversity Center. Photo by Connie Dickard.*



*Folks from the Service join their partners for a celebratory lunch after the tulotoma press conference. Photo submitted by Connie Dickard.*

# Sea Turtle Biologists Stay Busy for Nesting Season

This spring, FWS Biologist Dianne Ingram participated in the 31st Annual Symposium on Sea Turtle Biology and Conservation in San Diego. Sea Turtle enthusiasts gathered from across the country to discuss turtle advocacy, grant writing, conservation, climate change and the Gulf oil spill among other topics. Ingram was able to converse with sea turtle experts spanning the globe. She will use this insight as she actively participates in sea turtle nesting season along the Alabama Gulf Coast. Each year, sea turtles nest on Orange Beach, Gulf Shores, Fort Morgan, and Perdido Key. The season kicks off in May and wraps up in November.



*Bon Secour NWR personnel Jackie Dearborn and Chris Story, and Share the Beach volunteer Priscilla Dodd, document Alabama's first sea turtle nest of the 2011 season. There are more than 80 nests documented as of August 15 on Alabama beaches....a record-breaking statistic. Nest patrol teams, primarily volunteers, survey Alabama beaches daily May 1 through August 31 looking for and marking nests. Photo by Share the Beach.*

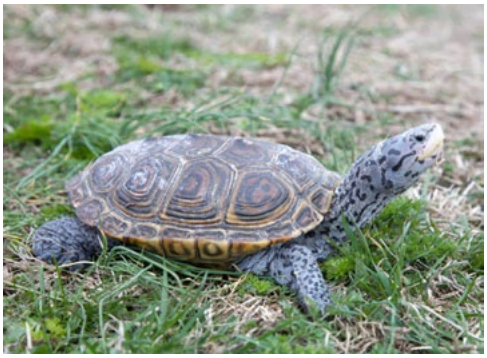
*A loggerhead sea turtle sports a new satellite transmitter and flipper tag. Biologists hope that data collected from the devices will show sea turtle movements during the nesting season and migration patterns over the nest two years. Sea turtles deposit several clutches (nests) of about 100 eggs each about every 2 weeks during the nesting season, but only nest every 2-5 years. Photo by Share the Beach.*

*At right: A US Geological Survey team lead by Kristen Hart briefly corrals a loggerhead sea turtle in Gulf State Park while conducting a first-ever sea turtle movement study in Alabama, June 2011. Loggerheads were listed as a threatened species under the Endangered Species Act in 1978; the National Marine Fisheries Service and US Fish and Wildlife Service are currently considering reclassifying the species as endangered. Photo by Share the Beach.*

# Climate Change in Alabama: The Waiting Game

In the state of Alabama, folks embrace their natural resources. From the sea turtles and manatees of the Gulf Coast, to the darters and mussels of northern Alabama, the state has some of the most diverse wildlife in the nation.

More than 130 species are listed as threatened and endangered. With so many fragile animals in their care, U.S. Fish and Wildlife Service biologists take climate change seriously. The changing climate is often seen in subtle ways. But those slight changes can have serious consequences.



*Biologists say Diamondback terrapins could be affected by climate change. Photo by Ryan Hagerty.*

"Small environmental changes can have big effects in a relatively short period of time, particularly when you are considering such powerful ecosystem drivers as temperature and moisture," explained Dan Everson, Deputy Field Supervisor of the USFWS Alabama Field Office (AFO). "Because of the flatness of the coastal plain, a few extra inches of ground water, a slight change in elevation of the tides will determine whether the landscape can continue to support a slash pine forest with an understory of pitcher plants and toothache grass."

Those changes don't just affect habitats, like our lush plants and healthy water. They also affect the animals that depend on them. Alabama reptiles may be among those at greatest risk, including the state reptile, the Alabama red-bellied turtle. That species, along with sea turtles and gopher tortoises may see detrimental affects when it's time to nest.

"The nest of these reptiles depends on temperature to incubate the nest and determine the sex of the hatchlings," said Service biologist Bruce Porter. "Warmer nests mean more female hatchlings. Too many females may alter the reproduction balance and ecology of the species."

Biologists are also keeping an eye on the diamondback terrapin, a reptile that was once commonly found in the marshlands of coastal Alabama. Today, the terrapin is listed as in "greatest conservation need" by the state of Alabama. State biologists believe climate change has contributed to the decline.

"The rising sea level, more intense storms, and loss of habitat have caused problems for the diamondback terrapin," explained Jim McHugh, state Wildlife Coordinator with the Alabama Division of Wildlife and Freshwater Fisheries.

The species was studied by researchers at the University of Alabama at Birmingham headed by biology professor Dr. Thane Wibbels. According to the study, the species was abundant at Cedar Point marsh on Dauphin Island, Alabama in the 1800's. But the population has since declined dramatically. Although predation, crab trapping, and commercial development are the main culprits, the report predicts that sea level rise could result in the "disappearance of the terrapin in some locations." The report notes that sea level rise could potentially drown salt marshes…..prime habitat for the reptiles. Researchers believe global climate change could greatly reduce the terrapin population in Alabama over the next 100 years.

But biologists with the U.S. Fish and Wildlife Service have a strategic plan to protect species like the terrapin and other resources as the climate continues to change. They are reaching out to partners and citizens alike in an effort to adapt to the change and preserve our wildlife.

"At the Alabama Field Office, we are educating folks about the advantages of using a resilient, living shoreline approach to protect against storm damage and erosion, and providing resources to implement restoration projects that utilize a living shoreline approach," explained Everson.

The AFO is also working with its partners to develop baseline ecological information on plant and animal communities throughout the state to assess change over time. Through partnership, outreach, and commitment, we can protect Alabama's most precious treasures.

# Biologist Reaches out to Students

Submitted by Jennifer Pritchett

As a biologist, I feel it is important to teach others about plants and wildlife, their environment, and their relationship to humans. I had the opportunity to speak to two preschool groups at Christ of King Early School in Daphne, Alabama about who the Fish and Wildlife Service is, what it means to be a biologist, and why it is important to protect endangered and threatened species.

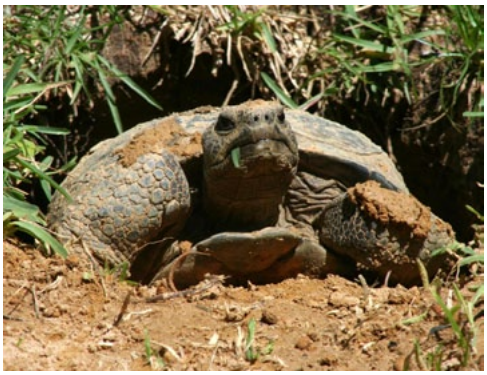
*Jennifer Pritchett is the newest biologist at the Alabama Field Office.*

During the program I introduced the students to one plant and three animals that live near their hometown and are on the endangered species list. I believe it's never too early to teach children about the importance of protecting wildlife and how they can help.

# Gopher Tortoise Becomes Candidate Species

By Chuck Underwood and R4 External Affairs

Gopher tortoises east of Mobile Bay will be added to the list of candidate species eligible for Endangered Species Act (ESA) protection. While candidate species receive no statutory protection under the ESA, inclusion on the candidate list promotes cooperative conservation efforts for these species.



*A gopher tortoise climbs out of its burrow in Baldwin County, Alabama. Photo by Carl Couret.*

"After careful review, we have determined the gopher tortoise east of Mobile Bay is facing many of the same problems and challenges as the western population, which is already listed as threatened," said Cynthia Dohner, Southeast Regional Director for the U.S. Fish and Wildlife Service. "We hope increased protection and conservation efforts in the next few years by private landowners and state and federal agencies in Alabama Florida, Georgia, Louisiana, Mississippi and South Carolina can reduce those threats."

In making this determination, the Service completed a comprehensive review – known as a 12-month finding – and found sufficient scientific and commercial data to propose listing the species as threatened or endangered throughout its range. However, the Service is precluded from beginning work immediately on a listing proposal because its limited resources must be devoted to other, higher priority actions.

The Service can provide technical assistance and competitive matching grants to private landowners, states and territories undertaking conservation efforts on behalf of candidate species. The Service also can work with interested landowners to develop Candidate Conservation Agreements. These voluntary agreements allow citizens to manage their property in ways that benefit candidate species. These agreements also can be developed to provide regulatory certainty for landowners should the species become listed under the ESA.

The Service made the determination in response to a petition filed on January 25, 2006, to list the gopher tortoise in the eastern portion of its range as threatened under the ESA. The petition was submitted by Mr. Brett Paben, of Wildlaw, on behalf of Save Our Big Scrub, Inc. and Wild South, and included supporting information regarding the potential causes of decline for the gopher tortoise in the eastern United States.

The Service completed an initial review on September 9, 2009, and concluded that the petition contained substantial information supporting a full study of the gopher tortoise's status.

The eastern portion of the gopher tortoise's range includes Alabama (east of the Tombigbee and Mobile Rivers), Florida, Georgia, and southern South Carolina. In these areas, the gopher tortoise will become a candidate species for listing under the ESA. In the western range states, west of the Tombigbee River in Alabama, Mississippi, and Louisiana, it will continue to be listed as threatened under the ESA.

Threats to the gopher tortoise include habitat loss, fragmentation and degradation, predation, inadequacy of regulatory mechanisms, and incompatible use of herbicides in forest management.

Gopher tortoises need relatively deep, sandy, soils in which to burrow, open sunny sites for nesting and abundant non-woody food plants. Favored foods are beans, broadleaf grasses, and selected plants in the sunflower family. Gopher tortoises also eat blackberries, blueberries, gopher apples, and other low-growing fruits. They thrive in longleaf pine forests, and enjoy the same type of habitat as the endangered red-cockaded woodpecker.

The gopher tortoise typically inhabits relatively well-drained, sandy soils and is generally associated with longleaf pine-dry oak sandhills, but also occurs in scrub, dry hammock, pine flatwoods, dry prairie, coastal grasslands and dunes, mixed hardwood-pine communities, and a variety of disturbed habitats. Gopher tortoises excavate burrows averaging up to 52 feet long and nine to 23 feet deep. These burrows, which provide protection from temperature extremes and predators, also provide refuge for about 360 other species throughout its range. Some of those species include indigo snakes, gopher frogs, Florida mice, skunks, opossums, rabbits, quail, armadillos, burrowing owls, snakes, lizards, frogs, toads, and many invertebrates.

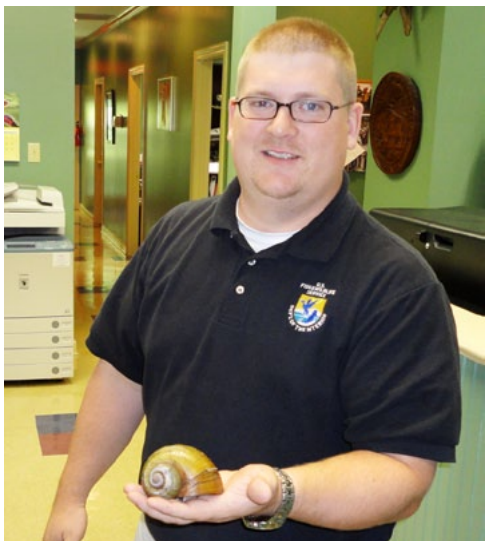
"The real challenge now is to fine tune on-the-ground management and reach out to more private landowners, who can have a profound impact on recovery for all species in this ecosystem," Dohner said."

Gopher tortoises can live to be over 50 years old, but do not reach reproductive age until they are 13 to 21 years old. Although it may seem that there are still a number of gopher tortoises out there, the current generation is aging and suffering lower reproductive success due to degraded habitat conditions. While still relatively common, as older gopher tortoises die, they are not being replaced by young ones.

To achieve the open habitat conditions tortoises prefer, prescribed burns are generally needed every three to five years. In palmetto flatwoods habitat, more frequent burns may be necessary. If burning is not possible to rejuvenate tortoise habitat, regular mowing and brush removal by mechanical means can get help clear out woody shrubs, and thin trees to maintain the natural landscape here in the Southeast that provides a home for the tortoise.

Any future proposal to place the gopher tortoise in the eastern portion of its range on the federal list of threatened and endangered species will include a formal proposed rulemaking process with ample opportunity for public review and comment.

*Partners biologist Eric Spadgenske is recognized by Dr. Randy Haddock at the Cahaba River Society Annual Meeting, photo by Karen Marlowe/USFWS.*



*Fisheries biologist Andy Ford displays the shell of an apple snail. Photo by Denise Rowell/USFWS.*

# Alabama Field Office Staff


Bill Pearson, Field Supervisor
251/441 5181
bill_pearson@fws.gov

Dan Everson, Deputy Field Supervisor
251/441 5837
dan_everson@fws.gov

Sergio Pierluissi, Fish and Wildlife Biologist, Partners for Fish and Wildlife, Private Lands
251/441 5872
sergio_pierlussi@fws.gov

Jeff Powell, Fish and Wildlife Biologist, FERC licensing, Aquatic Species Recovery
251/441 5858
jeff_powell@fws.gov

Shannon Holbrook, Fish and Wildlife Biologist, Grants, Forest Service, ESA Consultations
251/441 5871
shannon_holbrook@fws.gov

Patric Harper, Northern Gulf Coastal Program Coordinator
251/441 5857
patric_harper@fws.gov

Darren Leblanc, Fish and Wildlife Biologist, ESA Permitting and Consultation, Alabama Beach Mouse
251/441 5859
darren_leblanc@fws.gov

Bruce Porter, Fish and Wildlife Biologist, Linear Projects, Gopher Tortoise, Sea Turtles
251/441 5864
bruce_porter@fws.gov

Dianne Ingram, Fish and Wildlife Biologist, ESA Consultation, Sea Turtles, Manatees
251/441 5839
dianne_ingram@fws.gov

Josh Rowell, Corps of Engineers Consultations, Fish and Wildlife Biologist, ESA Consultations, Wetland Mitigation Banks
251/441 5836
josh_rowell@fws.gov

Jennifer Pritchett, Fish and Wildlife Biologist, Aquatic Species Recovery
251/441 6633
jennifer_pritchett@fws.gov

Andy Ford, Fisheries Biologist, Consultations, Aquatic Recovery, Contaminants Issues
251/441 5838
anthony_ford@fws.gov

Tracy Bush, IT Specialist
251/441 5869
tracy_bush@fws.gov

Drew Rollman, Cartographer, GIS Mapping
251/441 5866
drew_rollman@fws.gov

Denise Rowell, Public Outreach and Media Relations
251/441 6630
denise_rowell@fws.gov

Jill Carlton, Administrative Officer
251/441 5865
jill_carlton@fws.gov

Jodie Smithem, Fish and Wildlife Biologist, Terrestrial Species Recovery
251/441 5842
jodie_smithem@fws.gov

Eric Spadgenske, Fish and Wildlife Biologist, Partners for Fish and Wildlife State Coordinator
205/731 0874
eric_spadgenske@fws.gov

Karen Marlowe, Fish and Wildlife Biologist, ESA Consultations, NRDAR
205/726 2667
karen_marlowe@fws.gov


*Dan Everson, Deputy Field Supervisor for the Alabama Field Office, discusses stream restoration strategies near Mobile Bay with graduate students from the University of Illinois. Photo by Sergio Pierluissi/USFWS.*