



U.S. Fish & Wildlife Service

# Southeast Region

## E-GRITS NEWSLETTER



### New Incident Response Management vehicles a must in any disaster

In an effort to prepare for any emergency, the Southeast Region of the Fish and Wildlife Service has obtained four Incident Management Response trucks and trailers. The response vehicles are custom built to suit the needs of the Southeast Region's response teams and will be utilized to conduct a multitude of tasks. The vehicles were designed to deploy as self-contained units while conducting emergency response operations, and sustain a crew of up to 12 personnel for up to a week to 10 days without refueling or restocking. The largest trucks maintain crew supplies for two weeks with a 100-gallon fuel tank and storage for 100 gallons of potable water. All of the trucks feature a work station for two and those with communications capabilities include cell phone boosters, remote communication systems using satellite technology, and telescoping antennas to instantly set up radio communication in a disaster area.



Full view of Refuge Law Enforcement trailer. Photo credit: Jim Rothschild, USFWS



Work station in Refuge Law Enforcement trailer. Photo credit: Jim Rothschild, USFWS

"These trucks are great resources for our Region because we can more effectively respond to an incident and sustain a safe emergency response," says Stan Zazado of Refuges who was responsible for obtaining the vehicles.

There are two response truck and trailer units and several new fuel trailers currently assigned to Merritt Island National Wildlife Refuge in Florida. A 53-foot cargo trailer that has been converted into a mobile warehouse for rapid distribution of needed emergency supplies. A 30-foot response trailer is also assigned to Merritt Island National Wildlife Refuge that not only contains a portable work center, but also six portable generators, first aid supplies, personal hygiene supplies, and has a work bench area to perform minor repairs to equipment. Another 38-foot response trailer is assigned to Okefenokee National Wildlife Refuge in Georgia, and it comes equipped with the state of the art communications system and plenty of storage space to literally transport a crew and tons of supplies to an emergency location. The last 38-foot response trailer, currently located at Piedmont National Wildlife Refuge, was

specifically designed to suit the needs of the law enforcement program and will be assigned to the Regional Office. It also comes with a state of the art satellite communication system complete with laptop computers, phones, and surveillance cameras, as well as a mobile office with a printer, scanner, and fax machine. This trailer is the only trailer that includes a bunk area and it can sleep up to six personnel at a time to allow for 24 hour operations. The two disaster-responder trailers have custom-built chainsaw racks (now patented), enough hand and power tools for an initial crew, and the law enforcement trailer has a custom built weapons safe and a data center that controls satellite systems.

Response equipment will be stored at refuges that are close to major Interstates and airports to allow for rapid mobilization. Equipment is interchangeable and can be deployed separately or in unison to create a fully-functional command center capable of supporting large emergencies. More photos in [Photo Album](#).

Submitted by David Lucas, Refuges, Atlanta, Georgia



Relict trillium. Photo by Pete Pattavina.

### **Wakerobins and woodpeckers: discovery of an endangered plant population highlights complexities of endangered species conservation**

Blink and you could miss Berner, Georgia, not much more than a lump in the road where the Southern Railroad crosses State Route 83 at a big belly in the Ocmulgee River. Here, this lonely state highway slices through the heart of an Oconee National Forest management unit designated for improvement of pinewoods habitat for endangered red-cockaded woodpeckers--with the hopes of recruiting new birds from adjacent Piedmont National Wildlife Refuge.

Even the most casual traveler in this management unit would notice a hopeful regeneration of pinelands, an open, savanna-like landscape much different than the dark monocultures of loblolly pines that stand in parallel ranks on commercial plantations. So it made sense that the Forest Service would seek to increase management efforts for attracting future red-cockaded woodpecker colonies. But broad-brush ecological restoration paradigms that look favorable in written plans can underestimate and contradict the complexities of habitat details observed in the field.

Driving through the National Forest last April, a Georgia Ecological Services Biologist noticed an extremely steep and north-facing hardwood slope perpendicular to the roadway. A few steps from his truck and he was in the midst of a new and what would turn out to be one of the largest, known populations of endangered relict trillium (also known as Confederate wakerobin), thousands upon thousands of mature plants stretching nearly a mile under a century-old canopy of beech, oak, and tulip poplar. Truly a rare and unique habitat, the forest understory compared more to a rich mountain cove than a forest in the lower Piedmont, with species such as black cohosh, ginseng, northern maidenhair fern, trout lilies, Solomon's seal, paw-paw, rue anemone, and wild comfrey.

Georgia Ecological Services promptly notified the Forest Service, who had the area slated for thinning and burning in 2007 and 2008. Prescribed burning of this rich slope could be detrimental to the ecosystem supporting the robust relict trillium population. Even a fire of moderate intensity could lead to a die-off of mature beech trees, a thin-barked species intolerant of fire. Increased sunlight through the open canopy would promote droughty soil conditions and a possibly effect a wholesale shift in species composition. Luckily, the discovery of relict trillium spared this special habitat from an inappropriate habitat management prescription, and the area will continue to provide the unique habitat specificity for this endangered plant, while other uplands in the management unit could support red-cockaded woodpeckers.

*Submitted by Pete Pattavina, FWS Biologist, Ecological Services, Athens, GA*

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## ***Behind the Scenes --***



Gabby Saluta and Shannon Carmody (Environmental Careers)

### **It is a Gulf sturgeon!**

Panama City, Florida Field Office personnel assisted the "Mystery Hunters", a Canadian production company, in doing a story on a mysterious giant fish. The program, which is ending this year after three seasons, culminates with the solving of an ongoing mystery, which ends up being a sturgeon. The program was filmed on the Choctawhatchee River in Florida. The film makers were thrilled to meet a living dinosaur, the Gulf sturgeon, face to face. The "Mystery Hunters" is an educational television show for kids airing on the Discovery Channel. The program is scheduled to air sometime in November 2006.

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## Bragging Rights --



Pocosin Lakes National Wildlife Refuge interns include from left: Hilary Anderson, Shelby Cooksey, Ben Cogdell and Shannon Bowling. Photo by Wendy Stanton.

### Four interns complete projects at Pocosin Lakes National Wildlife Refuge this summer

This summer the Pocosin Lakes National Wildlife Refuge welcomed four new interns to assist with a vast array of biological projects such as wood duck and pelican banding, documentation of wood duck productivity, colonial nesting bird surveys, and maintaining and building wood duck nest boxes. They also used GPS to map invasive species on the refuge, and created and presented environmental education programs for local children and civic groups. The interns have diverse backgrounds and interests in wildlife and natural resources. Hilary Anderson, a current Edenton resident and a former Art student in Illinois, wanted to expand her awareness of ecological landscapes and contribute to the conservation efforts of the National Wildlife Refuge System. Shelby Cooksey, attends Catawba College in Salisbury, North Carolina, and is majoring in Environmental Science. Her goal for the summer was to enhance her expertise in native and exotic plant identification. Shannon Bowling had a particular interest in waterfowl on the refuge and is currently majoring in Fisheries and Wildlife Science at North Carolina State University in Raleigh. Ben Cogdell was interested in learning about the fascinating and unique ecology of the pocosin ecosystem. He is completing his senior year in Ecosystem Assessment at North Carolina State University.

Submitted by Wendy Stanton, Pocosin Lakes National Wildlife Refuge, Columbia North Carolina

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### Cryopreservation techniques refined for Alligator gar sperm

Despite the small numbers of alligator gar males captured during the last two years, the development of cryopreservation techniques continues for this fish. Milt was collected from several alligator gar broodstock during the spawning season. The broodstock were wild fish captured from St. Catherine Creek in Sibley, Mississippi, and held at Pvt. John Allen National Fish Hatchery in Tupelo, Mississippi. Future efforts include the development of short-term sperm storage techniques to increase genetic diversity in spawning crosses and also testing cryopreserved sperm on fresh eggs in fertilization trials. More photos in [Photo Album](#).



Corey Gullett and Ricky Campbell holding an Alligator Gar that will be used for spawning at Private John Allen National Fish Hatchery. Photo by Laura Dobbins, Private John Allen National Fish Hatchery.

Contributed by Jaci Zelko, Warm Springs Fish Technology Center, Warm Springs, Georgia

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L-R: Jim Glahn and Glenna Helm, Friends Group members; Karen Deaton, PRIDE Education Director; and two people from the Russell County School System. Photo by Cindy J. Lackey, Communications Manager of PRIDE.

### Friends of Wolf Creek National Fish Hatchery obtain PRIDE grant

The Friends of Wolf Creek National Fish Hatchery, Inc. recently received a \$5,000 environmental education grant from PRIDE or Personal Responsibility in a Desirable Environment. The funds will be used purchase resource materials to expand the environmental education program at the hatchery located in Jamestown, Kentucky. A non-profit organization, Eastern Kentucky PRIDE, Inc., provides financial resources from federal, state, and local government agencies to improve water quality and clean up illegal trash dumps and other solid waste problems. It also promotes environmental awareness and education. The organization is funded by grants from the National Oceanic and Atmospheric Administration. The U.S. Environmental Protection Agency and U.S. Army Corps of Engineers.

*Submitted by James Gray, Wolf Creek National Fish Hatchery, Jamestown, Kentucky*

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### Far Traveler teacher workshop scheduled

The U.S. Fish and Wildlife Service Red Wolf Recovery Program is offering a free teacher workshop on Friday, October 20, from 9 a.m. to 4 p.m., at Pocosin Lakes National Wildlife Refuge in Columbia, North Carolina. While the "Far Traveler" curriculum is designed mainly for Kindergarten through eighth-grade students, much of the instructional material can be used to achieve education and interpretation objectives for all audiences. This workshop meets North Carolina Environmental Education Certification Criteria I or III. It may also qualify for one Continuing Education Unit. In addition, Friday, October 20, was chosen to coordinate with the Saturday, October 21, red wolf howling safari. Howling registration and further information can be found at <[www.redwolves.com](http://www.redwolves.com)>. Northeastern North Carolina is home to the world's only wild population of red wolves. The endangered red wolf is present in portions of Dare, Tyrell, Hyde, Washington, and Beaufort Counties. The Red Wolf Recovery Program teacher workshop will cover the basics of red wolf biology and conservation and will focus on concepts such as food webs, habitat, endangered species, wildlife management, and conflict-resolution regarding wildlife in communities. Participants will learn and discuss curriculum activities as well as identify and cast red wolf tracks in Pocosin Lakes National Wildlife Refuge. Advanced workshop registration is required due to limited space. For information and registration, please contact Diane Hendry, Red Wolf Recovery Program Outreach Coordinator, at (252) 473-1131, ext. 246 or [redwolf@fws.gov](mailto:redwolf@fws.gov).



Red Wolf. USFWS photo.

*Submitted by Diane Hendry, Alligator River National Wildlife Refuge, Manteo, North Carolina*



Peacock Eel. USFWS photo.

### Service employees control invasive eels in canals of the South Florida Water Management District

Personnel from Welaka National Fish Hatchery, with assistance from fisheries biologist John Galvez of the South Florida Fisheries Resource Office, Vero Beach, are continuing a project that they began in 2002 - - using electrofishing as a means to control the spread of the Asian Swamp Eel (*Monopterus* spp.) These eels are highly evolved air breathers that inhabit streams, marshes, and ditches. Their native range includes tropical, subtropical, and temperate climates, not unlike the southeastern United States. The biology of the swamp eel makes it well suited for a variety of habitats in Florida, including several South Florida Water Management District canals, which have a direct connection to Everglades National Park. If the swamp eel invades the Everglades, it could pose a threat to native wildlife by reducing the abundance of small prey species, such as crayfish, fish, frogs, and tadpoles,

that form the food bases of larger fishes, wading birds, and other Everglades wildlife. Moreover, this invasive species can compete with the American eel for food and habitat. Service employees are using electrofishing as a control measure to slow or eliminate the downstream spread of the swamp eel past the southern-most water control structure where the eels would have unrestricted access to Everglades National Park. Currently, hatchery employees, assisted by other Service offices in South Florida, spend one week a month in these canals collecting swamp eels. All swamp eels are then preserved for later study. The projects' goal is to concentrate efforts in the lower 3.1 miles of canals that lead to Everglades National Park. This year, more than 400 Asian swamp eels have been removed from the canals. During the same period, Service employees have seen 10 American eels. By reducing or eliminating the spread of the swamp eels, we hope to reduce their threat to the Everglades ecosystem. In addition to the Asian swamp eel, for the first time, Service employees have captured a new invasive eel – the Peacock Eel (*Macragnathus siamensis*). Although previously known to be in these canals, this is the first time that one has been captured by the Service.



Asian Swam Eels. USFWS photo.

Submitted by Allan Brown, Welaka National Fish Hatchery, Florida



Sam Hamilton, RD, discusses the Santee-Cooper Hydroelectric Project with Amanda Hill, Charleston ES and John Dulude, Santee-Cooper PSA. Photo by Mark Cantrell, Ecological Services, Asheville, NC

### Regional Director visits Federal Energy Regulatory Commission dams

Southeast Regional Director Sam Hamilton led a group of regional and field office staff through the Low Country of South Carolina on two of the hottest days of August. Hamilton and Noreen Walsh, assistant regional director of Ecological Services, saw firsthand many of the “hottest” FERC projects that are undergoing relicenses in the Carolinas. These included the Saluda Project, operated by South Carolina Energy and Gas, the Columbia dam and fishway, Wateree Dam and the Diversion Dam at the Great Falls of the Catawba, operated by Duke Energy, LLC. Several stops along the route were made at the complex and sprawling Santee-Cooper Project, including at our own Santee National Wildlife Refuge, and then at Wilson Dam and Santee Bypass, the Rediversion canal and at the St Stephen fish lift operated by South Carolina Department of Natural Resources. “I can appreciate the complexity associated with these re-licensing efforts,” said Hamilton, who started his Service career working on FERC matters. “These truly are marathons and it takes dedication, professionalism and a fair amount of tenacity to see these projects to a successful end, and I am confident that the investment of time will pay great dividends for decades to come.” FERC issues licenses for terms of 30 to 50 years. Along the way, the Regional Director met with some of the

Fish and Wildlife Service’s important partners in these relicensing processes, including representatives from Santee-Cooper Power Authority, South Carolina Electric and Gas, and Mr. Wade Bales, Chief of Fisheries for South Carolina Department of Natural Resources. “I see it as an investment in the future and clearly your hard work is paying off,” Noreen Walsh told Ecological Service’s field office staff. Keep on negotiating in good faith as you have been, continuing with your common-sense, science-based approach.” More photos in [Photo Album](#).

Submitted by Mark Cantrell, Asheville Field Office, NC, and Sue Cielinski, Ecological Services, Atlanta, GA

### National Fish and Wildlife Service Forensics Lab provides In-Service Training

In mid-September, Bonnie Yates, from the National Fish and Wildlife Service Forensics Laboratory offered training in mammal identification at the Port of Memphis and at the Memphis Zoo. People observed and discussed African plains animals, marine mammals, exotic cats and primates at the Memphis Zoo. Attendees included staff from the Port of Memphis, the Port of Louisville, the Port of New Orleans, the Tennessee Wildlife Resources Agency, and the Memphis Zoo.



Yates instructs Memphis Zoo Staff, TN Wildlife Resources Agency and FWS Wildlife Inspectors on African Elephant foot Identification. Photo credit: Daryl B. Victor, Supervisory

Submitted by Holli Trimble, Port of Memphis, Tennessee



Bruce Sabol (Corps of Engineers) instructs Heather Garland (The Nature Conservancy) and Kenny Claywell (Corps of Engineers) on setup and operation of a thermal/infrared system for recording video of gray bats at Gallatin Steam Plant Caves on Old Hickory Lake in Hendersonville, Tennessee. Photo credit: Robert S. Currie, FWS.

### Shedding light on monitoring of endangered bat colonies

U.S. Fish and Wildlife Service biologists from North Carolina and Tennessee teamed up with scientists from The Nature Conservancy's Tennessee Chapter and the U.S. Army Corps of Engineers to continue field testing a new technology for recording and counting bats as they emerge from caves. The Corps of Engineers applied a thermal/infrared video imaging system, used for other Department of Defense research applications, to monitor colonies of endangered gray bats as they feed at dusk. The thermal/infrared video is analyzed with software specially designed by the Corps of Engineers for censusing the flying bats, whose warm body temperatures contrast on the video against cooler background surfaces. This collaborative effort to develop a cost-effective and precise means for censusing bat colonies will continue in 2007, hopefully to become more widely available in the future.

*Submitted by Geoff Call, Cookeville Ecological Services Field Office, Tennessee*

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### Saving sea turtles at Cape Romain National Wildlife Refuge

For almost 70 years, Cape Romain National Wildlife Refuge has worked to save the threatened loggerhead sea turtle. In the summer of 1939, William P. Baldwin, Jr., Junior Refuge Manager, and John M. Lofton, Jr., Wildlife Technician, conducted one of the first nesting loggerhead studies on Cape Island, the northern most barrier island in the refuge. In their 1940 manuscript, "The Loggerheads of Cape Romain," Baldwin and Lofton reported that a greater number of nests were found on the refuge islands than anywhere else along South Carolina's coast. There were over 600 nests a season, with 400 of those on Cape Island. Today, Cape Island receives 30 percent of the northern sub-population of loggerhead sea turtle nests in South Carolina with an average of 1,000 nests each summer, and is the most significant nesting beach north of Amelia Island, Florida. This season, there were 1,027 nests on Cape and 195 nests on nearby Lighthouse Island. The nest protection project, implemented in 1979, includes constructing protective hatcheries, locating nests and false crawls, relocating nests threatened by washover and erosion into the hatcheries, caging nests left in place, monitoring nests, and conducting inventories at season's end. These activities to protect the loggerhead nests would not be possible without the support and hard work of dedicated volunteers. They brave sizzling heat, biting insects and pop-up thunderstorms to save turtles. During this season, fifty-three volunteers generously gave 3,063 hours to Cape Romain's efforts to protect the loggerhead sea turtle. Of the 1,222 nests laid, 1,219 were protected due to the work of volunteers. The loggerhead sea turtle was listed as threatened under the Endangered Species Act in 1978. Factors attributing to their decline include loss of nesting habitat, artificial lighting, pollution, incidental capture in fisheries and dredging, and boat strikes. It is estimated that only one of every 1,000 hatchlings reach sexual maturity. More photos in [Photo Album](#).



Loggerhead hatchling heads out to sea. Photographer: Laura Smith, USFWS

*Submitted by Patricia Lynch, Cape Romain National Wildlife Refuge, Awendaw, South Carolina*

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Jim Williams of the Florida Natural History Museum discusses shell characteristics with workshop participants during the hands-on classroom session. FWS Photo.

### Georgia, Panama City Ecological Services Offices team with conservation partners on mussel education efforts

For the second year, Georgia Ecological Services and Panama City Ecological Services partnered with Columbus State University and the Joseph W. Jones Ecological Research Center to host a workshop on how to identify the freshwater mussels of the Appalachian-Chattahoochee-Flint (ACF) River Basin. More than 17 environmental consultants, students, and ecologists participated in an early August workshop at the Jones Center in Newton, Georgia. Participants learned about species characteristics, fish host species, and historic range and distribution of the system's mussels, seven of which are considered endangered or threatened. The workshop helps stakeholders working in the basin to better understand the species and to design conservation measures that will minimize impacts to the ACF's mussel diversity.

*Submitted by Sandy Abbott, Athens, Georgia Ecological Services Office*

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### International Coastal Clean-up at Cedar Keys National Wildlife Refuge

Early Saturday morning on September 16, students from Cedar Key School, tour boat captains, refuge rangers and about 25 community volunteers joined in on the International Coastal Clean-up for Cedar Keys National Wildlife Refuge. Each of the five boat-loads of volunteers combed the refuge island shorelines for marine debris and litter, finding plastic bags and bottles, styrofoam, and glass bottles in large quantities. Upon their return to the marina, the volunteers and refuge staff emptied their bags, and counted and documented every piece of debris collected. Other partners in the Cedar Keys effort included the Florida Fish and Wildlife Commission, the Cedar Key Aquaculture Association, and the University of Florida's Extension Service. Held annually since 1986, the International Coastal Clean-up engages people to remove trash and debris from beaches and waterways and to identify the sources of debris. Then they go to the source and work in partnership to devise ways of improving or altering products in order to eliminate them as a source of pollution.



Organizer Sue Colson and tour boat owner Captain Brian Mattice were 2 of the many volunteers happy to be cleaning up the refuge shorelines. FWS photo.

*Submitted by Pam Darty, Lower Suwannee and Cedar Keys National Wildlife Refuge, Chiefland, FL*



Red wolf gets health exam. Photo by Monica Harris, FWS.

### New litter of red wolves confirmed on St. Vincent National Wildlife Refuge

St. Vincent National Wildlife Refuge trapped a 28-pound male red wolf pup on August 30, 2006, confirming this year's litter. Radio tracking data suggested that the female denned to give birth to the litter in early May, and a volunteer reported seeing two small pups earlier this summer. Biologists captured the male pup while trapping to remove the four juvenile red wolves born last year, which have all been transferred to Alligator River National Wildlife Refuge in eastern North Carolina to be incorporated into the wild population. The pup was placed in a pen with his father who had been trapped a few days earlier. When the adult female was captured on August 31, all traps were removed, and the parents and the male pup were given health exams and released to join the rest of the family on St. Vincent Island. This is the second time in the 17-year history of the project that red wolves on St. Vincent Island have produced consecutive litters of pups. St. Vincent National Wildlife Refuge is an "Island Propagation Site" for the

Red Wolf Recovery program. The goal of the program on St. Vincent Island is to safely propagate red wolves while maintaining ecological balance and visitor access on St. Vincent Island. Red wolves produced on St. Vincent Island are removed before they are two years old and shipped to eastern North Carolina to help augment the wild population.

### Giveny Key will flourish for wildlife

On September 9, 2006 J.N. Ding Darling Refuge held a volunteer work day to restore Givney Key. During peak nesting season, this .7- acre rookery island, is home to over 600 pairs of nesting birds such as White ibis and Black-crowned night-herons. The project involved the treatment of exotic plants, such as Brazilian pepper, and the replanting of 150 native plants. This project was headed by the Southeast Region's Invasive Species Strike Team, stationed at the "Ding" refuge and was funded through a coastal restoration grant partnered by the Federation of Fly Fishers and the Service. In total, 18 volunteers of both organizations donated their time and boats to get the volunteers out to the island. Even with unbearably hot conditions, they got the job done. Now this nesting island will escape the infestation of exotic plants, and flourish for wildlife.



18 volunteers of both the FFF and USFWS restored Giveny Key, apart of the J.N. "Ding" Darling NWR Complex. FWS photo.

Submitted by Jason Hanley, J.N. "Ding" Darling National Wildlife Refuge, Sanibel, Florida

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## Hats Off --



Volunteer of the Year Dave Chafin shows off his critters at the 2005 Colonial Coast Birding and Nature Festival.

### Savannah Coastal Refuges honors volunteers at annual awards ceremony

Savannah Coastal Refuges honored refuge volunteers Saturday, September 23, at the Savannah National Wildlife Refuge in Georgia. Volunteers were treated to a pontoon boat tour up the Savannah River followed by a barbecue lunch and awards ceremony. Of the nearly 150 volunteers with recorded service at Savannah Coastal Refuges, 54 received citations or awards. The "Volunteer of the Year" award was presented to Dave Chafin of Savannah. In 2005, Dave drove over 1,200 miles to provide outreach programs reaching nearly 2,000 people, mostly children and seniors, and in six years, has logged more than 1,275 hours of service.

Submitted by Amy Ochoa, Savannah Coastal Refuges Complex, Georgia

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### Pat Boucher receives Service award

Robert S. Eaton, Acting Chief, Division of Fire Management, recently presented Pat Boucher her 20 years of Service in the Government of the United States of America Certificate at the Southeast Regional Office. Pat is the Fish and Wildlife Service Assistant Coordinator at the Southern Area Coordination Center in Atlanta, Georgia.

Submitted by Robert Eaton, Refuges, Atlanta, Georgia



Pat Boucher and Robert Eaton.

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## ***Photo Album --***

**New Incident Response Management vehicles a must in any disaster -- more photos**



**Chainsaw rack in the Incident Response trailer located at Okefenokee. Photo credit: Jim Rothschild, USFWS**



**Bunks in Refuge Law Enforcement trailer. Photo credit: Jim Rothschild, USFWS**



**Work station in Refuge Law Enforcement trailer. Photo credit: Jim Rothschild, USFWS**



**Communications hardware in Refuge Law Enforcement trailer. Photo credit: Jim Rothschild, USFWS**



**Incident Response trailer at Okefenokee from a frontal view. Shows generator. Photo credit: Jim Rothschild, USFWS**



**Incident Response trailer which is currently located at Okefenokee National Wildlife Refuge. Photo credit: Jim Rothschild, USFWS**



Incident Response Trailer currently located at Merritt Island National Wildlife Refuge (Right) and Refuge Law Enforcement Trailer (Left) initiating satellite communications process. Photo credit: Jim Rothschild, USFWS

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**Cryopreservation techniques refined for Alligator gar sperm -- more photos**



Corey Gullett pulling an Alligator gar out of the pond at Private John Allen National Fish Hatchery. Photo by Laura Dobbins, USFWS.

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**Regional Director visits Federal Energy Regulatory Commission dams -- more photos**



Amanda Hill, and Tim Hall, Charleston ES, with Sam Hamilton, RD, discuss the increase in spawning habitat for American shad with recent completion of a fishway at the Columbia Hydroelectric project. Photo by Mark Cantrell, Ecological Services, Asheville, NC



Susan Cielinski, Southeast Hydropower Coordinator, and Patty Woods, Office of Solicitor, explore the Great Falls Bypass Reach at the Catawba-Wateroe Hydroelectric Project. Photo by Mark Cantrell, Ecological Services, Asheville, N



Sam Hamilton RD, and Tim Hall, Field Supervisor, Charleston ES, listen to Jarrett Gibbons, SCNDR, explain the fish lift at St Stephen on the Santee-Cooper Hydroelectric Project. Photo by Mark Cantrell, Ecological Services, Asheville, NC



Tim Hall, Charleston ES, points out a large gar to Noreen Walsh, ARD, at the tailrace at the Wilson Dam Santee-Cooper Hydroelectric Project. Photo by Mark Cantrell, Ecological Services, Asheville, NC



Pete Benjamin, Raleigh ES, Brian Cole, Asheville ES, and Amanda Hill, Charleston ES, lament the lack of continuous minimum flows in the once roaring Great Falls of the Catawba, now reduced to puddles of rainfall. Photo by Mark Cantrell, Ecological Services, Asheville, N



Sam Hamilton, RD, Noreen Walsh, ARD, Brian Cole, Asheville ES, and others listen as Amanda Hill, Charleston ES, describes the recent tailwater surveys for diadromous fish at Wateree Dam. Photo by Sue Cielinski, Ecological Services, Atlanta, GA



Amanda Hill, Charleston ES, and Patty Woods, Knoxville Field Solicitor's Office, enjoy a laugh at the Pinopolis Lock and Dam on the Cooper River at Lake Moultrie. Photo by Mark Cantrell, Ecological Services, Asheville, NC



Noreen Walsh, ARD, Pete Benjamin, Raleigh ES, Brian Cole, Asheville ES, and Amanda Hill, Charleston ES, and Patty Woods, SOL, discuss the fish passage history at Pinopolis Lock with John Dulude, relicensing manager for Santee-Cooper PSA. Photo by Mark Cantrell, Ecological Services, Asheville, NC



Sam Hamilton, RD, Wade Bales, SC DNR Chief of Fisheries, Noreen Walsh, ARD, Jarrett Gibbons, SCNDR, and Patty Woods, SOL, discuss the fish lift at St Stephens. Photo by Mark Cantrell, Ecological Services, Asheville, NC



Amanda Hill, Charleston ES, and Sam Hamilton, RD, discuss the results of in-stream flow studies on the Wateree River. Photo by Sue Cielinski, Ecological Services, Atlanta, GA



Wade Bales, SC DNR, leads Noreen Walsh, ARD, Pete Benjamin, Raleigh ES, Tim Hall, Charleston ES, and Sue Cielinski, Ecological Services, Atlanta, GA, on a tour of the fish lift at St Stephens on the Santee-Cooper Re-Diversion Canal. Photo by Mark Cantrell, Ecological Services, Asheville, NC



Amanda Hill, Charleston ES, explains the operation of the Santee-Cooper Hydroelectric project to Noreen Walsh, ARD, and Tim Hall, Charleston ES. Photo by Mark Cantrell, Ecological Services, Asheville, NC



John Dulude, Santee-Cooper PSA, and Sam Hamilton, RD, stand atop the massive Pinopolis Lock at the Santee-Cooper Hydroelectric Project. Photo by Mark Cantrell, Ecological Services, Asheville, NC

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### Saving sea turtles at Cape Romain National Wildlife Refuge -- more photos



Loggerhead drops egg in nest. Photographer: Ray Paterra, USFWS



Loggerhead sea turtle lays eggs on Cape Island beach. Photographer: Ray Paterra, USFWS



Cape Romain Biologist Sarah Dawsey works with Volunteer Ed Farnworth to relocate nest. Photographer: Laura Smith, FWS



Jerry Tupacz, Cape Romain Biological Technician, & Volunteer John Kiesling check data for nest inventory. Photographer: Tricia Lynch, USFWS



Volunteer John Kiesling relocates a nest threatened with washover. Photographer: Tricia Lynch, USFWS



Volunteer Nancy Smith digs out a nest to inventory. Photographer: Laura Smith, USFWS



Sewee Association Volunteers Michelle Pate & Julia Binz remove eggs for safe relocation. Photographer: Karen Beshears

## Visitor Services --

### Warm Springs National Fish Hatchery

*Come discover a "peach of a place" in the Southeast!*



American Alligator. Photo credit: Jaci Zelko, Warm Springs Fish Technology Center, USFWS

The Warm Springs National Fish Hatchery Aquarium is open 8 a.m. to 4 p.m. seven days a week year-round. The aquarium showcases some of the types of fish raised at the hatchery including striped bass, robust redhorse, lake sturgeon, and spotted gar. Our non-profit hatchery support group –F.I.S.H. Friends in Support of Hatchery – was established to support the management and development of the fish hatchery. Our members come from many walks of life and take part in fundraising as well as educational, recreational, and conservation projects.

From the Aquarium, visitors can wander around our boardwalk and display pond area. Visitors can identify several fish species in the display pool including grass carp, suckers, large mouth bass, and long-nose gar. For only a quarter, people can feed a handful of fish food to our beautiful pool of large and colorful goldfish. Continue to venture towards our public boardwalk area and keep an eye out for.....two juvenile



American alligators!! Most days our alligators are basking in the sun or cruising for one of their favorite meals – fish! Search for one of our native alligator snapping turtles, they like to “hang out” at the bottom of our ponds.



Boardwalk and pavilion. Photo credit: Jaci Zelko, Warm Springs Fish Technology Center, USFWS

Our beautiful boardwalk encompasses a pond with several islands complete with a rich variety of native flowers and trees. As you stand at the end of our boardwalk, you might see several dark shapes cruising in the lower end of our display pond. Those shapes aren't sharks, but paddlefish.

Don't worry; they eat plankton, not people! If you look closely around the edges of ponds or hidden in the tall grass, you just might see one of six native venomous snakes that can be found in Georgia. Visitors wanting more information on reptiles and snakes don't have to look too far – several interpretative display boards with a wealth of information are located under the pavilion in the boardwalk.

For those wanting a little exercise, our nature walking trail is the place to go! The one-mile walk highlights many native bird species including red-shouldered hawks, ospreys, blue-gray gnatcatchers and killdeers. Any birder would be excited to spot a belted kingfisher or green heron wading in one of our ponds.

The hatchery is a great place to take a break, relax, eat a picnic lunch and get a great education on native bird, fish, and tree species in the Southeast. So come on over and experience a “peach of a place!”

For more information on “what we do” at Warm Springs, visit <http://www.fws.gov/warmsprings>



Haile and Jennifer with paddlefish. Photo Credit: Carlos Echevarria, Warm Springs National Fish Hatchery, USFWS



L-R: Jim Glahn and Glenna Helm, Friends Group members; Karen Deaton, PRIDE Education Director; and two people from the Russell County School System. Photo by Cindy J. Lackey, Communications Manager of PRIDE.



Lake sturgeon. Photo Credit: Carlos Echevarria, Warm Springs National Fish Hatchery, USFWS



Aquarium. Photo Credit: Tanya Woolley, Warm Springs Fish Technology Center, USFWS

**Wage Grade Profile --**



Dale Norris. Photo by Karen Pacheco.

### **Dale Norris enjoys wildlife sightings as a bonus of his job at Cross Creeks National Wildlife Refuge**

Dale Norris, engineering equipment operator at Cross Creeks National Wildlife Refuge in Dover, Tennessee, loves the variety of tasks associated with his job and the variety of rare species that can be seen at the refuge. For example, the refuge hosts overwintering waterfowl including the St. James Bay population of Canada geese, and there have been some confirmed sightings of the Cerulean warbler during the summer months.

"I have enjoyed being able to experience rare wildlife sightings as part of the job. Working on a refuge is different than any other job I have had," says Dale. "I have learned that the National Wildlife Refuge System is bigger than just the refuge next door, and I think the system needs to be bigger. There are too many beautiful places being lost to development."

A 14-year veteran of the Fish and Wildlife Service, Dale has worked at Cross Creeks for six years and at Tennessee National Wildlife Refuge in Paris, Tennessee. In his current position, he performs such tasks as maintaining refuge roads and operating the mowing deck and boom axe to set back encroaching trees.

In his spare time, Dale researches his family's ancestry and enjoys spending time with his family. He and his wife, Pamela, have twin sons, David and Daniel, and a daughter, Jennifer. Jennifer has two daughters, Rachel and Savannah.

*Submitted by Elsie Davis, External Affairs, Atlanta, Georgia*