Field Notes

The newsletter of the U.S. Fish & Wildlife Service's North Carolina Ecological Service's Field Offices

Note from the Field Supervisors: Working Together for the future

Since the beginning of June a wildlife that was sparked by lightning on private lands has impacted the people of Eastern Northern Carolina. A large part of one of our refuges has been scorched by this fire. However, the response by Service employees along with local and national employees has been phenomenal. It is going to take awhile to put the fire out in this peat rich soil. But it is a firedependent ecosystem and all of the plants and animals will return.

As you read this issue of Field Notes, biologists in North Carolina are accomplishing our mission and finding ways to do it better. The following articles are just a snapshot of the fine work that is being done with our partners to help protect our trust resources.

Some of this fine work was recognized at the Regional Director's Awards ceremony in Atlanta, Georgia. We have some great work going on throughout the state and it is always nice when an organization stops and takes a moment to recognize these efforts.

The work of the PLNWR Restoration Team to date has resulted in wetter soil conditions on the refuge which has likely aided the firefighters in preventing the fire from spreading westward.

In the Eastern part of North Carolina and in the Southeastern section of Virginia the USFWS and the USGS are coming together to rework the way we do business. This group is developing a a Strategic Habitat Conservation approach. This approach is being implemented nationwide by the USFWS. It is an exciting adventure that will help shape the way we do business.

Again if you have been involved in any of these exciting projects we want to say thank you for your efforts and I hope our partnership continues.

Brian Cole and Pete Benjamin

Evans Road Fire Burns on Pocosin Lakes National Wildlife Refuge



This natural-color image from the Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Terra satellite on June 11, 2008, shows the fire (active locations outlined in red) and smoke over the region.

As a result of continued dry conditions and extensive fire burning deep within peat soils, the Evans Road Fire continues to create challenges for firefighters. The fire, burning mainly on the Pocosin Lakes National Wildlife Refuge in North Carolina, is creeping and smoldering on the ground. More than 300 personnel from federal agencies across the country along with state and county agencies have responded to the blaze which started on June 1 with a lightning strike.

Firefighters are making progress to cool portions of the fire to reduce the amount of smoke being emitted into the air. High volume pumps are pulling water from lakes in the area to drown smoking soils. At this time, the fire remains on 41,060 acres. Smoke will likely be present until significant rain falls over the fire area.

Maps showing predicted movement of smoke are available along with other fire information and photographs visit www.inciweb.org/incident/1293/. To check the status of Pocosin Lakes National Wildlife Refuge visit: www.fws.gov/pocosinlakes/

Fire on Pocosin Lakes National Wildlife Refuge stresses wildlife







Photos from left to right. This small black bear was observed attempting to run through a chain-link fence recently outside of Pocosin Lakes National Wildlife Refuge. It was simply trying to get away and hide. Smoke from the fire can be seen smoldering on the ground and in the sky. Photos courtesy USFWS.

Many people are asking the question what happens to the wildlife on the refuge?

"It would be unrealistic not to say there will be some animal mortality," said Wendy Stanton, Wildlife Biologist, Pocosin Lakes National Wildlife Refuge. "However, unlike domestic animals, wildlife in pocosin habitat have adapted in this fire-adapted ecosystem and have developed the instincts to survive," she said.

"I think we can safely say that most wildlife have been able to escape the blaze," Stanton said. "I would guess that the wildlife caught by the fire have been the ones that have tried to burrow down to escape the heat - since the fire is burning down into the peat soil in many areas."

Almost all the wildlife on 35,000-plus acres have dispersed. "They've had to leave their homes." Stanton said. "As you can imagine, there is tremendous stress associated

with running from a fire, and you get a lot of roaming wildlife that are not behaving very predictably," said Stanton. "In the early stages, they're likely looking for places to hide," she said. "But, as time goes on, they'll be looking for food," she added.

If you encounter wildlife Stanton said you should follow the same rules as when you see an animal roaming around or in an unusual place:

Do NOT feed wildlife. Feeding these animals might seem like the best way to help, but it will produce destructive behavior in wildlife- a situation not safe for wildlife or people.

Do NOT approach the wildlife. If given a little time the animals will move on. They are looking for food and shelter. There is still plenty of water in the area in ditches and canals. If food or shelter is not provided, they will eventually move

on. If there are bears stay inside until you are sure they have left the area.

Do NOT leave items outdoor that may attract wildlife. Wildlife are attracted to items such as outdoor cooking equipment, bags of trash, containers of pet food, etc.

DO NOT RUN. If you encounter a bear, slowly wave your arms, make lots of noise and slowly back away from the animal.

The animals will likely return to the refuge according to Stanton. "A few months - even a few weeks- after the fire is out, the refuge will begin to 'green-up' and provide even better habitat than what existed prior to the fire," she said.

The NC Wildlife Resources Commission has a WILDLIFE HOTLINE - 1-800-662-7137 where people may ask questions about wildlife issues.

NC employees recognized at Regional Director's Awards Ceremony

Gary Peeples named "Outreacher of the Year" for Region 4





Gary Peeples receives his award from Sam Hamilton, Director, Region 4, USFWS.

Gary Peeples during an outreach event. Photo courtesy of Havwood County Soil & Conservation

District.

Gary Peeples, Fish and Wildlife biologist, Asheville Field Office was recognized as the "Outreacher of the Year" for the Southeast Region.

"I am extremely pleased to see Gary get this well-deserved recognition," said Brian Cole, Ecological Services Supervisor, Asheville Field Office. "As everyone who works with him will attest, he is an extraordinary asset to the Fish and Wildlife Service and to conservation," he said. "And it couldn't happen to a nicer guy," he added.

Gary is regularly heard on the public radio station WNCW in Asheville N.C. with his local radio spot entitled "creature features." With these spots he

hopes to entertain and also educate the listeners about the importance of wildlife. He is also writes occasional articles for the Wildlife of North Carolina Sportsman Magazine.

Gary also had a leadership and planning role during the "Summit on the Summits" workshop on high elevation communities. With the help of others Gary organized a workshop on endangered species for river guides and the Toe River Valley Legacy workshop.

Gary is also a presence in the community leading field trips on water-quality monitoring, stream ecology, and aquaticinvertebrate sampling for local school students.

Southeast Regional Director's Honor Award Recipients







Photo from left to right: Sam Hamilton, Regional Director USFWS Region 4, presents awards to John Stanton, Pete Benjamin, and Stephen Jackson not pictured Sara Ward. Photos by Tom Mackenzie, USFWS

North Carolina was well represented at the recent U.S. Fish and Wildlife Service Southeast Regional Director's Awards Ceremony. Individuals and teams from North Carolina were recognized for their outstanding efforts. The Southeast Region is comprised of USFWS offices located in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico and the Virgin Islands, South Carolina and Tennessee.

"Each person or team being honored here today has made ground-breaking contributions toward fish and wildlife conservation," said Sam D. Hamilton, Southeast Regional Director, U.S. Fish and Wildlife Service. "We applaud their efforts and dedication, which are freely given in service to the natural world."

Pete Benjamin, Field Supervisor, Raleigh Field Office; Stephen Jackson, Supervisor, Edenton National Fish Hatchery, John Stanton, Supervisor,

Migratory Bird Field Office, Columbia, N.C.; and Sara Ward, Ecologist, Raleigh Field Office each received a Regional Director's Honor Award. This award is given to honor individuals who have gone above and beyond their duties to accomplish a significant action or actions that benefits plants, animals or their habitats. Individual award write-ups may be found on

www.fws.gov/southeast/07SEDirector Award/RDHonorAwards.pdf

Southeast Regional Director's Team Honor Award Recipients



Outlying Landing Field Team from left to right: Kristi Watkins, Pete Benjamin, Dennis Stewart, Wendy Stanton, Doug Newcomb, Mike Bryant, Bud Fazio, John Hammond, Patty Matteson, Sam Hamilton, and John Stanton. Not pictured Tom Augspurger and David Rabon. Photos by Tom Mackenzie USFWS.



Sam Hamilton presents Howard Phillips with the PLNWR Restoration Team Award not pictured Sara Ward, Mike Wicker and David Kitts

Sam Hamilton, Southeast Region Regional Director, USFWS, recognized two teams from North Carolina for their efforts.

The first team recognized "The Outlying Landing Field Team" was comprised of USFWS employees across North Carolina and one in the region. The members include: Tom Augspurger, Contaminants Biologist, Raleigh Field Office (RFO), Pete Benjamin, Supervisor, RFO, Mike Bryant, Project Leader, North Carolina Coastal Plain Refuges Complex, Bud Fazio, Team Leader Red Wolf Recovery Program, John Hammond, Endangered Species Biologist, RFO, Patty Matteson, Outreach Coordinator, RFO, Doug Newcomb, GIS Coordinator, RFO, Howard Phillips, Refuge Manager, Pocosin Lakes National Wildlife Refuge, David Rabon, Endangered

Species Biologist, RFO, Dennis Stewart, Refuge Biologist, Alligator River National Wildlife Refuge, John Stanton, Supervisor, Migratory Bird Field Office, Wendy Stanton, Biologist, PLNWR and Kristi Watkins, External Affairs, Southeast Region.

This team worked together to address the issue of the placement of an Outlying Landing Field adjacent to Pocosin Lakes National Wildlife Refuge by the U.S. Navy. This field would have been used by the Navy to practice carrier landings and takeoffs. These employees worked with the Navy and local citizens, conservation organization and others to educate the impact the landing field would have on migratory birds, other wildlife, refuge visitation and the overall ability of the sustainability of the future of the wildlife refuge.

The next team the Pocosin Lakes Wetlands Restoration Team members included David Kitts, Assistant Refuge Manager, PLNWR, Howard Phillips, Refuge Manager, PLNWR, Sara Ward, Contaminants Biologist, RFO and Mike Wicker, Biologist, RFO.

This group was instrumental in the restoration of 10,600 acres of wetland on PLNWR. This restoration had been an ongoing effort since 1993 with Mike procuring a partnership with N.C State University that resulted in the restoration of more than 3,000 acres on the refuge. Sara was instrumental in securing additional support from the N.C. Department of Natural Resources through work she had done toward the offsetting of nitrogen emissions from a nearby 4 million hen egg farm. This resulted in DENR helping to fund the restoration of an additional 6,000 acres.

South Carolina Volunteer's Work Impacts North Carolina Beaches



Betsy Brabson receives Conservation Award from Sam Hamilton. Photos by Tom Mackenzie USFWS.

Elizabeth (Betsy) Newman
Brabson received the Regional
Director's Conservation Award for
her work on beach vitex. Although
she resides in South Carolina and first
brought the issue of the non-native
plant beach vitex invading the South
Carolina coast, Brabson's work was
instrumental in North Carolina being
notified of the threat to its beaches.

"Betsy has been a great asset to the beach vitex eradication movement since this species was recognized as being invasive," said Dale Suiter, Biologist Raleigh Field Office and cochair of the Carolinas beach vitex task force. "She is motivated by her sincere desire of the conservation of sea turtles and other native coastal species," said Suiter. "Because of Betsy we have a very positive feeling that beach vitex can be eliminated from the coast of the Carolinas," said Suiter

NWRs in NC Contribute \$721,000 to County Budgets

ALLIGATOR RIVER NWR ALLIGATOR RIVER NWR CEDAR ISLAND NWR CURRITUCK NWR EDENTON NFH MACKAY ISLAND NWR MATTAMUSKEET NWR PEA ISLAND NWR PEE DEE NWR PEE DEE NWR POCOSIN LAKES NWR POCOSIN LAKES NWR POCOSIN LAKES NWR POCOSIN LAKES NWR-FSA ROANOKE RIVER NWR ROANOKE RIVER NWR-FSA ROANOKE RIVER NWR-FSA SWANQUARTER NWR

108.736 DARE COUNTY, NC 9.104 HYDE COUNTY, NC 12,629 CARTERET COUNTY, NC 186.373 CURRITUCK COUNTY, NC 1,412 CHOWAN COUNTY, NC 50,873 CURRITUCK COUNTY, NC 37.692 HYDE COUNTY, NC 109.351 DARE COUNTY, NC 70.108 ANSON COUNTY NC 10.732 RICHMOND COUNTY, NC 26,946 HYDE COUNTY, NC 33.482 TYRRELL COUNTY, NC 12.620 WASHINGTON COUNTY, NC 672 HYDE COUNTY, NC 41,669 BERTIE COUNTY NC 74 NASH COUNTY, NC



Chart showing refuge contributions. Various shots of North Carolina refuges.

499 SAMPSON COUNTY, NC

7,271 HYDE COUNTY, NC

The total Revenue Sharing funds contributed to North Carolina counties by 10 national wildlife refuges and one hatchery this year was just under \$721,000.

Each year, the USFWS presents funds to counties in which there are refuge and hatchery properties; these funds have been presented annually since the Refuge Revenue Sharing Act was enacted in 1978. As a federal land manager, the US Fish and Wildlife Service delivers these monies to counties in lieu of property taxes.

Amounts of the contributions vary annually and are based on a computation method which takes into account the fair market value of the acreage owned by the Service within the county or the total amount of funds the Service collects from activities on that land, whichever is greater. Such funding is generated at the national level from offshore and land oil and gas leases, timber and

gravel sales and grazing rights.

"The amount generated frequently does not meet the amount due under the criteria procedure," said Mike Bryant, Project Leader, North Carolina Coastal Plain Refuges Complex, "But Congress often authorize and appropriates additional funds to help fill the gap."

This year's contribution, which represents fiscal year 2007, enables the Service to contribute approximately 41.9365 percent of the total entitlement.

North Carolina is fortunate to have 10 refuges, including Cedar Island, Pea Island, Alligator River, Currituck, Mackay Island, Mattamuskeet, Pee Dee, Pocosin Lakes, Roanoke River, and Swanquarter, and Edenton National Fish Hatchery.

"We are always pleased when we can make contributions to our local areas, "Bryant said. "The refuges are beautiful and serene places within their counties that present large conservation, management, and restoration for the native plants and animal communities, as well as, the soil and water they depend on. We can maintain these lands for wildlife while, at the same time, providing a special place for local residents and visitors to spend time. We invite all residents and visitors who have seen the refuges to come back again and again. National Wildlife Refuges have moved into their second hundred years, so it's a prime time to get to know them. To those who have not yet taken the opportunity, we extend a warm invitation to come for a visit. You'll be glad you did," Bryant said.

For more information about National Wildlife Refuges in N.C. visit:

www.fws.gov/southeast/maps/nc.ht ml or call 1-800-344-WILD (9453)

Biologists Work Together To Keep Rare Fish Off Endangered Species List



Collecting eggs from a sicklefin redhorse. Photo by Mark Cantrell, USFWS

Biologists collected 27,000 thousand sicklefin redhorse eggs this spring as part of an on-going captive rearing and release program that will expand the range of the species and help eliminate the need for listing the fish under the Endangered Species Act. First discovered in the 1990s, the sicklefin redhorse is a candidate for listing under the ESA.

"The eggs were fertilized and will be reared in Conservation Fisheries, Inc.'s Knoxville facility before being released back in Western North Carolina, above dams on the Tuckasegee and Oconaluftee Rivers, where biologists hope to establish new populations," said Mark Cantrell, Fish and Wildlife Biologist, Asheville Field Office.

This is a cooperative conservation effort between the Service, the Eastern Band of Cherokee Indians, North Carolina Wildlife Resources Commission, and Conservation Fisheries, Inc.



A red wolf on Alligator River National Wildlife Refuge.

Red Wolf Howlings Begin

Every year the USFW Red Wolf Recovery Program and the Red Wolf Coalition jointly sponsor weekly howling experiences for the public.

The 2008 summer schedule began June 11, at 7:30 p.m. and continues each Wednesday evening through Labor Day. The highlight of the evening is having the chance to listen for the characteristic "howl" of one or more red wolves as they communicate with each other. While there are no guarantees that red wolf howls will be heard, audiences will definitely get a chance to try their howling skills, learn about red wolves, and experience the wilds of Alligator River National Wildlife Refuge after dark.

Participants meet on ARNWR at Creef Cut Wildlife Trail at the intersection of Milltail Road and Highway 64. A short presentation provides an overview of the Red Wolf Recovery Program and the role of the Red Wolf Coalition, a Friends organization dedicated to the preservation of the red wolf species. Visitors have an opportunity to obtain red wolf literature and to see both red wolf and coyote pelts and skulls, track casts, tracking collars, and field photos.

For a 2008 schedule or to register for a howling, contact the RWC office at 252-796-5600 or visit www.redwolves.com. A \$5 charge per person administrative fee is charged for the summer howlings. There is no charge for children five-years-old and under.

Biologists Meet To Discuss Transition To An SHC Approach



Staff representing 11 national wildlife refuges in Eastern NC and Southeastern VA, the Ecological Services office in Raleigh, the Sandhills Suboffice, the South Atlantic Fisheries Coordination Office and the National Fish Hatchery along with biologists from the U.S. Geological Survey pose for a photo on the boardwalk at the Center for the Sound.

Earlier this year a group of forty biologists, ecologists, managers, and outreach specialists met at Pocosin Lakes National Wildlife Refuge to kick-start Strategic Habitat Conservation (SHC) in Eastern North Carolina and Southeastern Virginia. This group was formerly known as the Roanoke-Tar-Neuse-Cape Fear Ecoteam.

They met again recently to continue the evolution to this adaptive management approach to conservation planning, implementation, and evaluation.

SHC was developed by a team of U.S. Fish and Wildlife Service and U.S. Geological Survey scientists to meet the challenges of wildlife conservation in the nation and to include up-to-date technologies and methods. In July, 2006, the USFWS along with the U.S.G.S. released a report, "Strategic Habitat Conservation, Final Report of the National Ecological Assessment Team," on wildlife conservation management in the United States. Following the report, Dale Hall, Director, USFWS declared

that Strategic Habitat Conservation will be used to implement the Service organizational priorities. (A copy of this report can be found at www.fws.gov/southwest/About%20Us/PDFs/SHC%20NEAT_Final_Rpt.pdf

SHC changes the Service business model - how we allocate and manage our resources; how we respond to threats and opportunities; the ways in which we integrate science and technology into day-to-day actions; and how we will provide unique value to conservation, partners, elected officials and the public. SHC moves us toward a new business model where the Service is not solely a manager of habitats and populations, but is providing knowledge that will be the biological foundation for landscape-level fish and wildlife conservation. This business model will have us acting less opportunistically, and more comprehensively and strategically in our day-to-day work.

SHC is a framework of five functional elements that must occur in an adaptive management loop. The five elements are: *Biological planning* identify priority species and establish species populations objectives,

identify limiting factor; Conservation Design develop habitat objectives for desired landscape conditions; Conservation Delivery implement on-the-ground conservation actions; Outreached Based Monitoring that emphasizes evaluation and appropriate decision making and Assumption Based Research that evaluates conservation delivery.

"For us in the Raleigh Field Office SHC this is the way we will do business," said Pete Benjamin. "Our involvement with the SHC ENCSEVA team will allow us to focus on specific goals set by the team in that geographical area," he said. "We will be able to work together more effectively to benefit priority trust resources and we will be better able to engage and assist our conservation partners," he said.



SHC Model

Bat Numbers Rise, But Mysterious Illness Still Poses Threat



Bats infected with White Nose Syndrome photo by Al Hicks, New York Department of Environmental Education

The endangered Indiana bat saw a 9.4% population increase between 2005 and 2007, continuing a twelve-year rise in bat numbers, though a mysterious illness in the Northeast poses a threat to this success.

Biologists in New York documented the death of thousands of bats, including several hundred Indiana bats, apparently infected by a fungus which often forms white tufts on the bats' muzzles, giving the name white nose syndrome, or WNS. Researchers are trying to

determine if the fungus itself is responsible for the deaths or if its presence is symptomatic of another problem.

Thus far, WNS has been documented in New York, Massachusetts, and Vermont and until they have a better understanding of the nature of the disease and how it's transmitted, biologists urge cavers to help prevent its potential spread. To that end, the Service provides caving guidelines at

http://www.fws.gov/midwest/Endang ered/mammals/inba/BatAilment.html

USFWS Working With Haywood Leaders On Development Issues



Participants during a Growth Readiness Roundtable in **Haywood County**

Biologists from the Asheville Field Office helped Haywood County leaders chart a course for future development.

The Service's involvement was part of a Growth Readiness Roundtable, facilitated by NC State University's Watershed Education for Communities and Organizations program. Through the program, community leaders from across the professional spectrum came together to look at where and how future growth should be managed to protect the county's natural resources.

The USFWS, NC Natural Heritage Program, and NC Wildlife Resources Commission provided input on development impacts to wildlife and how to avoid them. Haywood County is home to the endangered Appalachian elktoe mussel as well as several listed terrestrial species.



The South Toe River.

6th Graders participate in Outreach Program

More than 100 sixth graders from North Carolina's East Yancey Middle School got their feet wet in the South Toe River searching for mayflies, caddisflies and crayfish with Asheville Field Office biologist Gary Peeples as part of a day-long outdoor science field day. The middle school serves students living in a watershed that's home to an endangered mussel, the Appalachian elktoe, thus making it a priority school for the Service's environmental education efforts.

Granville County Family Recognized by Forest Landbird Legacy Program



Photo from left to right representing the FLLP John Isenhour, NCWRC, John Ann Shearer, USFWS, Kendall Smith, USFWS, Landowners Sarah Jenkins Brown, Rufus Brown and Bettie Anne Hayes, also representing the FLLP Mark Johns, NCWRC, Laura Fogo, USFWS, Private Lands Biologist, Danny Ray, NCWRC, and David Halley, Consulting Forester

Rufus Brown and his family were recognized on May 30 with a sign and certificate for their habitat accomplishments through the Forest Landbird Legacy Program on their 117 acre family property in Granville County. The purpose of their project is to restore and enhance upland mixed hardwood and pine/hardwood forests and improve the understory of middle-aged loblolly pine forest for the benefit of Partners In Flight birds of conservation concern such as Wood Thrush, Yellow-throated Warbler, Hooded Warbler, and Scarlet Tanager. The cost shared improvements accomplished on the property included establishment of firebreaks, prescribed fire, creation of canopy gaps, and creation of snags. The family was also recognized by the North Carolina Division of Forest Resources for their participation in the Forest Stewardship Program and by the Tar River Land Conservancy for putting their entire tract into a permanent conservation easement. To learn more about the Forest Landbird Legacy Program go to: www.fws.gov/nc-es/es/partners/factsheetlbl.pdf

North Carolina Beach Vitex Task Force Receives Planning Grant



A Beach Vitex patch on Bald Head Island photo by Dale Suiter

The North Carolina Beach Vitex Task Force recently received a grant for more than \$125,000 from the National Fish and Wildlife Foundation to help eradicate beach vitex on the North Carolina Coast. The Task Force in North Carolina has surveyed for beach vitex and documented 264 sites. With 300 linear miles of coastline, the plant has been found in 7 of 9 coastal counties.

"Our goals are to identify and eradicate all known populations of beach vitex," said Melanie C. Doyle, Horticulturist, N.C. Aquarium at Fort Fisher, and co chair of the NCBVT.

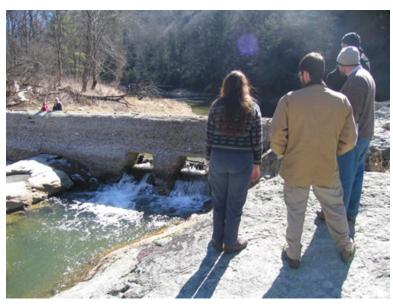
"We want to restore degraded beach and dune habitat to natural conditions, monitor beaches to ensure that beach vitex seedlings or plants do not reoccur and educate coastal landowners, landscapers and media about the benefits of landscaping with native plants," she added.

Beach vitex, a deciduous woody plant from the Pacific Rim, was introduced to the southeastern U.S. in the mid-1980's as a landscape plant. Many oceanfront homeowners planted beach vitex to protect their property. By the mid-1990's, biologists recognized its invasive qualities and

potential to become a serious threat to natural beach and dune ecosystems. Beach vitex actually destabilizes dunes by out-competing native dune species like sea oats and bitter panicum. This plant may also negatively affect habitat for rare animals such as the loggerhead sea turtle, various shorebirds and rare plants such as the federally threatened seabeach amaranth. Beach vitex is under consideration by the N.C. Department of Agriculture and Consumer Services for listing as a State Noxious Weed. The NCBVT is asking that towns that participate in the grant adopt an ordinance outlawing beach vitex. For further information on beach vitex

visit: www.beachvitex.org

Decrepit Dams to be Removed From Toe River Valley



Dam on the North Toe slated for removal photo credit Gary Peeples USFWS

A pair of dams, one in Mitchell the other in Yancey County, are slated to be removed in an effort spearheaded by Toe River Valley Watch and Blue Ridge Resource Conservation and Development Council. One dam sits on the Toe River, outside of Spruce

Pine in Mitchell County, while the other sits on the Cane River, upstream from Yancey County's Mountain Heritage High School. The Cane and Toe Rivers join to form the Nolichucky River, which flows west into Tennessee.

"These dams serve no purpose," said Cliff Vinson, coordinator of the Blue Ridge RC&D Council, a program of the U.S. Department of Agriculture. "They're a safety hazard and an impediment to fish movement," said Vinson. dams were constructed for power generation, though it has been decades since either produced electricity," he added.

Today, they've been breached by their respective rivers and all that remain are massive slabs of concrete, impeding natural water flow. It's been so long since either dam served a purpose no one can find records showing who they belong to. The dams impede the up and downstream movement of fish and other aquatic life, splitting populations, leaving each portion diminished in size and genetically isolated, making them more susceptible to impacts such as disease or poor water quality.

Development agreement results in improved and protected habitat



Agriculture land to be converted back to wetlands photo by Bryan Tompkins, USFWS

Concern over the possible destruction of wetlands and migratory bird habitat led wildlife enthusiasts to contact the Asheville Field Office about a proposed assisted living facility in Hendersonville, NC.

Although the development required no federal permit (all construction was upland) and used no federal money, biologist Bryan Tompkins facilitated a compromise with the city, developer and wildlife conservationists that will results in the restoration of fifty acres of wetlands that were previously drained for agriculture, and the protection of more than 70 acres of the 137-acre site. The protected acreage connects with three other protected wetlands in an area well known in the birding community as a stopping point for scores of Eastern migratory bird species.

Helping media understand drought's wildlife impacts



Biologist Lora Zimmerman searches for mussels while a photographer from The State newspaper looks on. Photo by Jennifer Koches, USFWS

Public affairs officers from the Charleston, Raleigh, and Asheville Ecological Services offices have teamed with state wildlife agencies, North Carolina State University, and others in a media campaign to focus on the plight of aquatic wildlife in the Southeast's current drought.

Their efforts have gotten several journalists in the field with biologists to see the impacted streams first hand and resulted in articles in The State - the largest newspaper in South Carolina; and the Charlotte Observer and Raleigh News & Observer – the two largest newspapers in North Carolina.

The issue has also been covered on WUNC, North Carolinas public television station, as well as a host of smaller media outlets.

North Carolina High School Students Search for Endangered Mussel



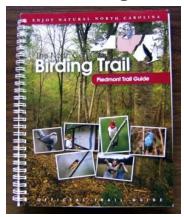
Local high school students look for an Appalachian elktoe mussel in the toe River. Photo by Gary Peeples, USFWS

The morning of May 17 saw a flotilla of 17 boats set out on North Carolina's Toe River on an expedition to find the endangered Appalachian elktoe mussel. While biologists routinely monitor the presence of the endangered Appalachian elktoe mussel, what set this effort apart was that it was made up largely of students from Mountain Heritage High School's Eco-Club.

Organized as a celebration of Endangered Species Day, the trip included students, biologists from the USFWS, and members of Toe River Valley Watch. The team found two elktoes, a wavy-rayed lampmussel, and a hellbender salamander. "We wanted to give the students an opportunity to see first hand the biodiversity found in the river, especially the endangered species found in their own backyard, "said said John Fridell, the Service's Appalachian elktoe expert. "It's one thing to talk about a river, it's another to feel the cold water around your legs, watch the fish around your feet, and see the big sky above," he said.

"I hope at the end of the day, everyone on the trip had a deeper appreciation for the Toe River," Fridell said.

N.C. Birding Trail Piedmont Region of the Trail Opens



The North Carolina Birding Trail Piedmont Trail Guide

Bird watchers, enthusiasts and researchers alike gathered May 15 to celebrate the opening of the Piedmont region of the North Carolina Birding Trail.

Once the driving trail is complete, it will link birding sites from the coast to the mountains across the state. The celebration at Durant Nature Park in Raleigh marked the completion of the Piedmont region, between Interstates 95 and 77. The coastal region was completed last year, and the mountain region is slated for next year.

"This is an endeavour we are very proud to be a part of," said Fred Harris, interim executive director of the North Carolina Wildlife Resources Commission. "It is important in the larger context of promoting wildlife conservation in our state. One of the greater challenges we face is how do we get people out to where the pavement ends – and beyond – and interacting with wildlife in an increasingly urbanized society. This does that."

North Carolina has long been known for its remarkable birding

opportunities. The Birding Trail sites are composed of federal, state, local government and private lands. They offer chances to see some of North Carolina's birds such as the Bluebird, Cardinal and Yellowrumped warbler.

The Commission, along with U.S. Fish and Wildlife Service, the N.C. Cooperative Extension Service, N.C. Sea Grant, Audubon NC and N.C. State Parks, is working cooperatively to develop the Trail.

Thursday's event also promoted the guide book that accompanies the new portion of the trail and its 103 birding sites. It's the second of what will be a series of three guides about the trail. For a list of approved sites, to order the book, or for more information about the trail, visit www.ncbirdingtrail.org.

Safe Harbor Program to be featured in a book on Conservation Successes

Recently, the USFWS Sandhills Sub-office hosted Dr. Andrew Balmford, professor of conservation science, from the University of Cambridge in Cambridge, England. Dr. Balmford is writing a book about conservation success and is choosing examples from each continent to represent positive stories in conservation.

For his North America example, Dr. Balmford has chosen to write about the Safe Harbor Program. Before the program, landowners in the N.C. Sandhills were cutting mature long-leaf pine trees that could attract the endangered Red-cockaded woodpecker. They were trying to avoid penalties under the rules of the

Endangered Species Act.

In the early 1990s biologists from the U.S. Fish and Wildlife Service, Environmental Defense, Fort Bragg and N.C. State University joined conservationists to come up with an idea to allow private landowners some flexibility on the management of their lands. The program termed Safe Harbor was conceived. Pinehurst Golf Course was the first private landowner to sign up for the program. There are now 91 such agreements in the Sandhills.

In 1999, Safe Harbor became a national program. Today more than 350 private landowners are enrolled to conserve and protect 35 endangered

and threatened species. More than 3.6 million acres of private land have beenenrolled in the SHP.

Susan Miller, Safe Harbor Biologist, and Dr. Balmford went out to see first hand how Safe Harbor has worked in the Sandhills. He visited with local landowners, toured and met with officials at Pinehurst Golf Course. visited Weymouth Woods State Nature Preserve to view the oldest known longleaf pine (approximately 460 years old) and viewed three red-cockaded woodpeckers coming in to roost for the evening in the old-growth longleaf stand known as the Boyd tract.

What Ecological Services Does

Endangered and Threatened Species Listing/Recovery/ Delisting

The Ecological Services Division is responsible for administering significant parts of the Endangered Species Act. We have programs that work to conserve rare species before they need legal protection, and we determine whether to add a species to the Federal List of Endangered and Threatened Wildlife and Plants.

Once a plant or animal is listed as threatened or endangered, we work to coordinate efforts to recover that species. These efforts include providing funding to state agencies to protect these species and working with other government agencies, private companies and individuals to help them protect these plants and animals on their land.

Ultimately, the goal of the Endangered Species Act is to recover species to the point where they no longer need federal protection, and Ecological Services determines which plants and animals have recovered to the point they can be delisted.

Project Planning

There are a number of federal laws that instruct the U.S. Fish and Wildlife Service, as the nation's wildlife agency, to review various projects that are funded and/or authorized by the federal government. The Service's role is typically to identify impacts to fish, wildlife, and plants and their habitats from these projects and work to minimize or eliminate those impacts. The laws under which the Service reviews projects include: the Endangered Species Act, Fish and Wildlife Coordination Act. Clean Water Act, Federal Power Act, the Migratory Bird Treaty Act, and the National Environmental Policy Act. The project planning program also focuses on large scale planning and conservation efforts; working with others to identify and implement strategies to meet the long term needs of wildlife and people at the landscape level.

Partners for Fish and Wildlife

The Partners for Fish and Wildlife Program provides funding and technical assistance to private landowners to help them restore, improve, and protect fish and wildlife habitat while leaving the land in private ownership.

Environmental Contaminants

This program involves working with partners to prevent environmental contamination and to maintain the health of ecosystems; identifying contamination that adversely affects the health of fish, wildlife, and their ecosystems; serving as the federal trustee for fish and wildlife injured by contamination; and negotiating settlements from polluters to restore lost resources and their benefits to local citizens.

Coastal Program

This program focuses on restoring ecosystem health to bays, estuaries, and watersheds along the coastlines of the United States. Working with partners, the Coastal Program provides funding and technical assistance for projects to restore wetlands and seagrass beds, control invasive species, acquire rare or exceptionally important habitats. remove dams to allow fish passage to spawning areas, and provide community outreach regarding coastal fish and wildlife resources.



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Front Row from left to right: John Ann Shearer, John Hammond, Susan Miller, Dale Suiter, Doug Newcomb; Second row from left to right: Mike Wicker, Patty Matteson, Joe Pittman, Leigh Mann, Sara Ward Back row from left to right: Tom Augspurger, David Rabon, Pete Campbell, Pete Benjamin, Howard Hall Not pictured: Gary Jordan, Mark Bowers, John Ellis

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