



North Carolina Wildlife Resources Commission



Wildlife Diversity Quarterly Update

Jan - March 2012





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N.C. Partners in Flight Updates

Forest Landbird Legacy Program

In September 2011, the Forest Landbird Legacy Program (FLLP) ended its seven-year run. Designed to benefit forest landbirds through private landowner matching grants, FLLP was funded through the U.S. Fish & Wildlife Service’s Partners for Fish & Wildlife Program and administered through the N.C. Wildlife Resources Commission. Management recommendations were tailored to each site, focusing on creating habitat for forest interior species such as wood thrush, Swainson’s warbler, hooded warbler, yellow-throated warbler, ovenbird and yellow-billed cuckoo. Twenty-three landowners received \$89,411 towards direct, on-the-ground habitat management on 1,245 acres. The full final report can be downloaded [here](#).



Eastern bluebirds - Geoff Cantrell

Eastern Bluebird Partnership

In winter 2011 and spring 2012, eight bluebird nestboxes were purchased and installed at elementary schools across the state. Each nestbox contains a wireless camera, allowing teachers to incorporate bluebird nest observations into their curricula. Each school agreed to maintain the box for five years. A biologist from either the N.C. Wildlife Resources Commission or the U.S. Fish and Wildlife Service sponsors a box at each school.



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N.C. Wildlife Resources Commission
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Cooleemee Plantation was one of the 23 participants in the FLLP Program.



An eastern bluebird nestbox with a wireless camera is installed at Clearmont Elementary School in Yancey County.



Piedmont Bird Surveys and Management

In February 2012, Wildlife Diversity Program staff presented results comparing managed and unmanaged Sandhills streamhead pocosins. Streamhead pocosins or “drains” historically have been fire suppressed, resulting in stands with a closed canopy and a dense evergreen shrub understory (“woody drain”).

Through mechanical and chemical means and the reintroduction of fire, some drains on Sandhills Game Land were converted to an open canopy with an understory dominated by switchcane and other grasses and forbs (“herbaceous drain”). Staff conducted nest

searching and territory mapping in these habitats for five years and observed a significantly greater nest abundance and greater territory density for shrub-nesting birds and Wildlife Action Plan (WAP) priority birds in herbaceous drains. Herbaceous drains supported much higher territory densities of nine bird species, including three WAP species: brown-headed nuthatch, orchard oriole, and red-headed woodpecker. Woody drains supported somewhat higher territory densities of six species, including one WAP species: hooded warbler. Staff concludes that active management of Sandhills drains is largely beneficial to the bird community.



Fire-suppressed “woody drain”



Managed “herbaceous drain”

Cooperative Land Conservation Project

The Greater Uwharrie Conservation Partnership (GUCP), established in late 2006 with the help of the N.C. Wildlife Resources Commission, recently celebrated its five-year anniversary. The partnership includes land trusts, local, state and federal agencies

and landowners. In a recent survey, 10 of 12 partner organizations responded that the partnership had made them significantly more effective in achieving conservation goals. Together, these partners have accomplished the following results over the last five years.



GUCP meets with Alcoa on a field trip about habitat management on Alcoa lands.

- 4,124 acres permanently protected that improve conservation for priority species.
- 2,952 acres of priority habitat enhancement.
- 200 new landowner relationships.
- 20 strong working relationships with local government representatives.
- \$10 million in state grants, \$1,073,000 in federal grants and \$1,765,000 in local and private donations used or leveraged through match in conservation funding applications.
- 236 sites surveyed for GUCP conservation target species.
- Three research and graduate student projects completed relevant to GUCP goals.

Piedmont and Coastal Herpetology Surveys and Management

Status surveys for Neuse River waterdogs (*Necturus lewisi*) began during winter 2011 and continued during winter 2012. This project involves repeating a study conducted during 1978-81, where 360 sites were surveyed throughout the species' range. During 2012, 47 sites were surveyed for waterdogs — 18 on the lower Coastal Plain and 29 in the Piedmont and upper Coastal Plain. Waterdogs were detected at 10 of the 47 sites during this year's surveys. Seventy-five sites have been surveyed

so far during this multi-year project and waterdogs have been found at 18 of those sites (24 percent positive). This project will likely continue for two to three additional winter trapping seasons or until enough information is gathered to determine waterdog status with high confidence. For video of this project, check out: www.ncwildlife.org/News/Blogs/NCWRCBlog/tabid/715/EntryId/39/Not-Your-Average-Dog.aspx



A Neuse River waterdog (Necturus lewisi) from the Little River in Wake County. Wildlife Diversity biologists are surveying for this species of special concern to determine how it is faring in North Carolina.



The North Carolina Sea Turtle Stranding and Salvage Network

The North Carolina Sea Turtle Stranding and Salvage Network (STSSN) is coordinated by Wildlife Diversity staff. Each winter, as water temperatures drop in shallow estuarine areas, cooperators and volunteers with the STSSN patrol hotspot areas where hypothermic or “cold-stunned” sea turtles have been found in earlier years. On Jan. 4, 2012, following a cold snap in Carteret County, 23 cold-stunned turtles were recovered from Cape Lookout Bight in Carteret County. Overall, 39 green turtles, 10 Kemp's ridleys and four loggerheads, which were cold-stunned, were recovered in Carteret, Hyde and Dare counties throughout January and February 2012. Of these, 17 were live turtles, and were transferred to one of three rehabilitation facilities in North Carolina for recovery and eventual release. Four cold-stunned turtles that stranded in early January were deemed recovered by the end of January and were released in warmer waters near the Gulf Stream, with help from a local charter boat captain based in Morehead City. The remaining turtles were released after they recovered.



23 cold-stunned sea turtles from Cape Lookout on Jan. 4 2012 and a recovered cold-stunned turtles released near the Gulf Stream in late January 2012





Coastal Region Landbirds

The Monitoring Avian Productivity and Survivorship (MAPS) Program is a continent-wide network of hundreds of constant-effort mist netting stations that produces critical information for the conservation and management of North American landbird populations (www.birdpop.org). The Coastal Wildlife Diversity Program will operate its second full M.A.P.S. banding season from mid-May through early August 2012 at The Nature Conservancy's

Green Swamp Ecological Preserve in Brunswick County. Last season, staff banded more than 100 birds representing 21 different species, including Bachman's sparrow (*Peucaea aestivalis*), red-headed woodpecker (*Melanerpes erythrocephalus*), and prairie warbler (*Setophaga discolor*). Volunteers, preferably with experience though not required, are welcome to assist. Contact John Carpenter at 910-742-7231 or john.carpenter@ncwildlife.org for information.



Commission biologist John Carpenter bands a female Northern cardinal. Wildlife Diversity Program staff has banded more than 100 birds representing 21 different species, including Bachman's sparrow (*Peucaea aestivalis*) (middle photo) and the prairie warbler (*Setophaga discolor*). (Prairie warbler photo by U.S. Fish and Wildlife Service.)

Colonially Nesting Waterbirds Survey

The coast-wide survey of colonially nesting waterbirds was conducted from May through early July 2011 and was accomplished with assistance from numerous volunteers who came from the N.C. Wildlife Resources Commission programs, National Park Service's Cape Hatteras and Cape Lookout National Seashores, Audubon North Carolina, the U.S. Fish and Wildlife Service, N.C. Department of Environment and Natural Resources programs, N.C. State University, UNC-Wilmington, and several citizens. All known and newly discovered colonies were surveyed and all active nests were counted. We detected 71,483 nests of

colonial waterbirds along North Carolina's coast in 2011. These nests were from 22 species distributed among 134 nesting sites. Species with the greatest numbers of nests were white ibis (*Eudocimus albus*), laughing gulls (*Leucophaeus atricilla*), royal terns (*Thalasseus maximus*) and brown pelicans (*Pelecanus occidentalis*).

The number of brown pelican nests detected was the greatest since the coast-wide surveys began in 1977 and the number of sites where brown pelicans nest has increased from two sites in 1977 to 11 sites in 2011. (Figure 1)

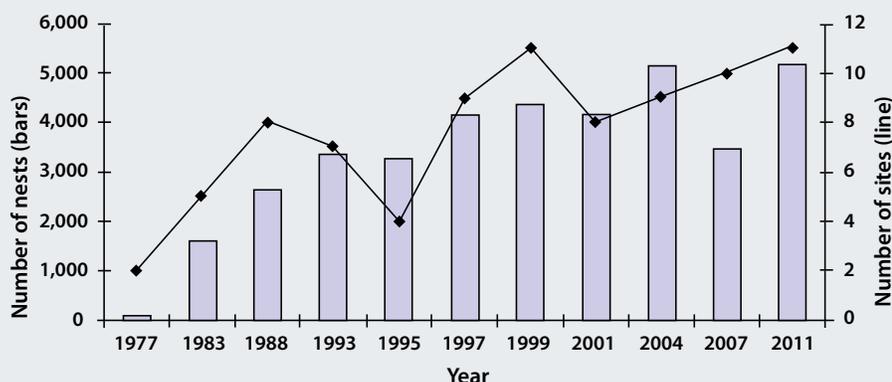


Figure 1.



Waterbirds (continued)

Further, the number of least tern (*Sterna antillarum*) nests increased while the number of colonies on roofs declined. We suspect that least terns were able to use preferred natural nesting sites due to increased protection of bird nesting areas by natural resource agen-

cies such as the Commission and National Park Service. Continued monitoring of this species of special concern will reveal the mechanism behind increased use of natural beach sites and increased numbers of nests. (Figure 2)

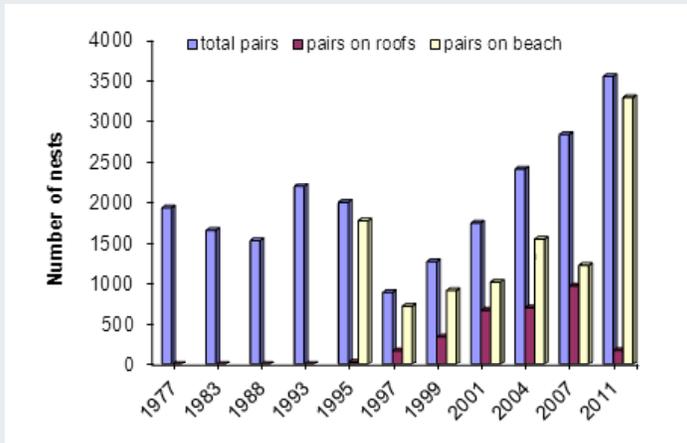


Figure 2.



Brown pelican chicks (Photo by Sue Cameron)

Western North Carolina Bird Conservation

Prompted by increasing interest in golden-winged warbler (*Vermivora chrysoptera*) conservation, 18 partners from four southeastern states met in Asheville in November to strategize regional monitoring and habitat management. Chris Kelly, Kendrick Weeks and Gordon Warburton described recent coordinated efforts between Wildlife Diversity and Wildlife Management staffs to survey extensively for golden-winged warblers in western North Carolina. Through close collaboration, the U.S. Forest Service

now has integrated North Carolina's Best Management Practices (BMPs) for this species in upcoming timber operations on the Nantahala and Pisgah National Forests. Not only will this provide more golden-winged warbler habitat, but evaluating the effects of these practices will provide important information for understanding the status of populations in North Carolina and for updating the BMPs to maximize their benefits to the species.



Male golden-winged warbler (*Vermivora chrysoptera*). (Photo by West Virginia University)



Female golden-winged warbler (*Vermivora chrysoptera*). (Photo by West Virginia University)

Western North Carolina Amphibian Conservation

In October 2011, Wildlife Diversity staff and volunteers conducted N.C. Wildlife Action Plan priority salamander surveys in a little-known area of Madison County, near Hot Springs. This area is north of the French Broad River corridor, a 2.5 km straight-line distance from the North Carolina/Tennessee border.

A state special concern species and Wildlife Action Plan priority species, the Southern zigzag salamander (*Plethodon ventralis*) was last reported from this area in 1977, but on the south side of the French Broad River corridor. Staff received a citizen's report of this species on the north side of the river in spring

2011 and followed up with surveys in October. Two adult and one juvenile Southern zigzag salamanders were found during searches of natural cover objects, confirming species presence and updating records for that area.

During the survey, staff and volunteers were surprised to discover a marbled salamander (*Ambystoma opacum*) under hillside woody debris. This species is another Wildlife Action Plan priority and was not known previously from Madison County. The sandy soils, lower elevation, and Piedmont vegetation communities that characterize this part of Hot Springs appear to contribute to the area's species richness.



Marbled Salamander (*Ambystoma opacum*), Hot Springs, Madison County, October 2011



Southern Zigzag Salamander (*Plethodon ventralis*), Hot Springs, Madison County, October 2011

North Carolina Bat Acoustic Monitoring Program: Call for Volunteers

As a part of a regional monitoring effort, the N.C. Wildlife Resources Commission is conducting car-based acoustic bat surveys. The surveys, a part of the Commission's North Carolina Bat Acoustic Monitoring Program (NCBAMP), are conducted throughout the mountain region of the state by volunteers. These citizen scientists are typically from different fields, ranging from a college professor to a nurse to a stay-at-home mom. Volunteers set up bat detectors on their car roofs and drive 20-mile routes. The routes are driven twice during the survey season, which is May 15 to July 15. Surveys start 30 minutes after sunset and take approximately one hour to complete. Routes are available near Andrews, Cherokee, Frank-

lin, Hot Springs, Marion, Morganton, Murphy and Robbinsville. These surveys help state biologists gather important information about species composition and distribution throughout the region, as well as help monitor the effects of White-nose Syndrome on North Carolina's bat populations. For more information about adopting a route or NCBAMP, contact Corinne Diggins at corinne.diggins@ncwildlife.org or call 828-273-3991. For more information on White-nose Syndrome and how it's negatively affecting bat populations, go to the U.S. Fish and Wildlife Service's website:

fws.gov/whitenosesyndrome or the National Speleological Society's website caves.org/WNS.



Bat Hibernaculum Protection

Wildlife Diversity and Land Management Program staffs partnered to repair a cave gate protecting hibernating bats in Avery County. The chain link fence around the outside openings and the iron cave gate inside the main shaft were damaged by vandals attempting to gain access to the state-owned historic mine.

Kendrick Weeks, mountain wildlife diversity supervisor, and Joe Tomcho, wildlife technician I, planned and completed the repairs in October 2011. Funding for the repairs was provided by the U.S. Fish and Wildlife Service Flex Fund and the Wildlife Commission's Nongame and Endangered Wildlife Fund.





Support the Wildlife Diversity Program and Help Keep North Carolina Wild!



Whether you hunt, fish, watch, or just appreciate wildlife, you can help conserve North Carolina's wildlife and their habitats and keep North Carolina wild for future generations to enjoy. To make a direct donation for conservation of North Carolina's wildlife, print this [form](#) and send it with your check or money order payable to the N.C. Wildlife Resources Commission, to: N.C. Wildlife Resources Commission, 1702 Mail Service Center, Raleigh, N.C. 27699-1702.

You also can pay [online](#) with a credit card.



Wildlife Diversity Endowment Fund — Give a gift that lasts forever.

THE WILDLIFE DIVERSITY PROGRAM

The Wildlife Diversity Program, formerly known as the Nongame and Endangered Wildlife Program, was established in North Carolina in 1983 to prevent nongame species from becoming endangered by maintaining viable, self-sustaining populations of all native wildlife, with an emphasis on species in decline.

More than 1,000 nongame animals — animals that are not hunted or fished — call North Carolina home. Many nongame species, including mammals, reptiles, birds, amphibians, snails, mussels, and fish, are common and can be seen or heard in your own backyard. Other nongame animals, such as bald eagles and peregrine falcons, were, at one time, considered endangered, but now soar high in the sky, thanks in part to the work conducted by Wildlife Diversity Program biologists.

The men and women who work for the Wildlife Diversity Program are dedicated to conserving and promoting nongame wildlife and their habitats through a variety of survey and monitoring programs, species management, and habitat conservation or restoration projects. While these programs and projects target nongame animals and their habitats, game species — such as deer, turkey, mountain trout and smallmouth bass — also benefit because they share many of these same habitats.

You can learn more about the many projects and programs conducted by Wildlife Diversity personnel on behalf of nongame and endangered wildlife by visiting www.ncwildlife.org/conserving.aspx.

Unless otherwise noted, all photos in the document are by the N.C. Wildlife Resources Commission. Cover photo: great blue heron by Mark Buckler

