

Georgia WILD Newsletter: January 2009

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Grassland, canebrake habitat work gets boost from Georgia Ornithological Society

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By Tim Keyes and Nathan Klaus

The Georgia Ornithological Society initiated the Bill Terrell Avian Conservation Grant program last year. This grant is a tribute to GOS' commitment to bird conservation in Georgia. The Georgia Wild Resources Division's Nongame Conservation section received significant funding from this grant for habitat restoration work in upland grassland habitats and bottomland canebrakes.

Over the last century, grassland birds have shown the strongest declines of any guild of North American birds due to land-use changes. Grassland nesting species in Georgia like grasshopper sparrow and eastern meadowlark as well as pine savanna species such as Bachman's sparrow and loggerhead shrike have all suffered significant declines. These grassland habitats also provide habitat for migratory sandhill cranes and wintering sparrows and raptors.

*Canebrakes are another threatened habitat in Georgia. Historically, extensive canebrakes covered miles of bottomland habitat, housing an array of species from Swainson's warbler to several butterfly species that depend on cane (*Arundinaria* sp.) as a host plant. Cane now exists only in small isolated patches, with large canebrakes being virtually non-existent.*

The Nongame Conservation Section has been working to restore both upland grassland habitats and canebrakes, and the GOS grant program has been helping the section achieve those goals. Upland habitat work focused on Joe Kurz Wildlife Management Area in Meriwether County and Panola Mountain State Park in Rockdale County. Both sites have extensive areas of bermudagrass pasture. Bermudagrass is an exotic grass planted for cattle forage that competes with native grasses and forbs and is poor habitat for native wildlife. Birds like bobwhite quail and sparrows prefer native bunch grasses, which grow in clumps leaving bare ground between for young birds to move while being protected by tall grasses overhead.

With the GOS grant, biologists are in the process of converting 100 acres of pasture to native warm-season grasses at Joe Kurz WMA. At Panola Mountain, researchers are working to establish 20 acres of native grasses from hand-collected seed. This technique ensures that local genotypes of grasses are restored, rather than buying seed from distant sources that may not be best adapted to the Georgia Piedmont. In order to let the native grass grow, the bermudagrass must be killed with an herbicide before planting.

Charlie Muise, Georgia Important Bird Areas coordinator, is using a network of volunteers to mist-net birds at both sites and monitor the avian response to habitat management. So far, the results have been excellent.

During the breeding season, grasshopper sparrows and eastern meadowlarks have been located. Wintering sedge wren, vesper sparrow and many swamp and song sparrows have been banded, and northern harriers have been seen hunting over the restoration area.

While they weren't caught in mist-nets, migratory sandhill cranes have used both sites over the last year.

The canebrake restoration work included mulching and applying herbicide to 10 acres of privet at Panola Mountain and transplanting native cane into these sites. Volunteers helped dig, plant and water the clumps of cane. Despite the dry weather last spring, the area has shown more than 50 percent survival of cane stems transplanted and a significant pulse of new growth is showing where the privet canopy overhead was removed.

Biologists also are working on a site at Riverbend WMA in Laurens County. Fortunately, there is not much privet there, but a rapidly growing 15- to 20-year-old hardwood thicket is shading out patches of cane in the understory. A skidder-mounted mulcher was used to clear about 7 acres in several patches. Dense stands of cane should rapidly grow into these newly created light gaps, creating dense canebrakes.

Riverbend WMA has a large population of Swainson's warbler that should make good use of this habitat as it develops. Biologists surveyed Swainson's warblers before management began and will tracking the birds response to the restoration work over the next few years.

An application for a GOS grant for 2009 has been submitted and the hope is to continue these types of projects at a number of other sites.

Tim Keyes is a wildlife biologist and Nathan Klaus is a senior wildlife biologist with the Georgia Wildlife Resources Division's Nongame Conservation Section

[From bugs to beavers, McDuffie puts unique spin on learning](#)

Located in Dearing near Augusta, McDuffie Environmental Education Center provides fun learning and fishing in east Georgia.

The educational center is a collaborative effort between the Georgia Department of Natural Resources and the McDuffie County Board of Education, along with Fort Discovery National Science Center in Augusta, the Central Savannah River Area (CSRA) Resource Conservation and Development Council, and the CSRA Regional Education Services Agency.

The center's staff of three certified teachers serves approximately 5,000 visitors a year. While the center is open to all, reservations are required and preference is given to groups of 20 or more.

McDuffie's staff works to help K- through 8th-grade teachers reach and exceed Georgia Performance Standards, or GPS, by using the outdoors and the environment. Unique lessons offer students outdoor activities that stimulate their minds and help develop an appreciation for the area's diverse ecology.

"Our primary goal is to help educators meet the GPS and (No Child Left Behind) standards while offering unique outdoor experiences that students will take back with them," staff member Dot Kay said.

McDuffie has a discovery room, one indoor classroom, six outdoor classrooms and a computer lab where students learn hands-on about subjects as diverse as beaver dams and butterflies as well as more general Earth science topics. Teachers can design activities based on where their students are in their curriculum.

"One fun activity that is popular with first-grade students focuses on camouflage and helps develop observation skills," Kay said. "Staff members scatter more than 100 plastic bugs and critters of various colors and sizes along one of the trails.

"The kids get a kick out of who can find the most and have a great time doing it while learning about animal habitats and animal survival strategies."

In addition to outdoor classroom activities, McDuffie Environmental Education Center has three interpretive trails and a butterfly garden. Older kids can participate in special fishing events held at McDuffie Public Fishing Area's eight public ponds. Tours of the McDuffie warm-water fish hatchery are also offered.

McDuffie Environmental Education Center is open year-round by reservation only. The busy seasons are in the fall from September to November and in spring from March to May.

Reservations need to be made early for these times of the year.

For more, go to www.georgiawildlife.com or www.themeec.org, or contact the Environmental Education Center at 4695 Fish Hatchery Road, Dearing, Ga. 30824. McDuffie schools can call (706) 986-4997. For private or home-schooled students, or those outside McDuffie County, call (706) 339-5457.

Fall Line Sandhills: Rare Species Found Here

By John B. Jensen

One of the state's more unique conservation lands lies on the north side of Ga. 96 in middle Georgia's Taylor County, about 2.5 miles west of the square in Butler.

The state Department of Natural Resources approved the purchase of what is now Fall Line Sandhills Wildlife Management Area from AmSouth Timber Fund LLC for \$1.33 million in 2006, a project announced in early 2007 and powered by a State Wildlife Grant and private donations.

The primary reason for the acquisition was the high diversity of rare species found on the 876 acres. The list of rare and threatened animals and plants includes Southeastern kestrels (a type of falcon), Bachman's sparrows, gopher tortoises, southern hognose snakes, gopher frogs, striped newts, federally endangered pondberry, sandhill golden-aster, Pickering's morning-glory, and lax water-milfoil.

Previous owners managed the upland habitats for timber and pulp production derived from planted loblolly and sand pines. Historically, this area would have been naturally dominated by longleaf pines and scrub oaks. Because the planted pines did not fair too well on some of the deeper, drier sands, remnant natural vegetation and dependent wildlife species have persisted here, while often disappearing in similarly-managed plantations.

DNR Wildlife Resources Division personnel will be using a variety of methods to aggressively manage and restore these habitats to their natural state, ultimately benefiting rare and common species native to this area. Techniques will include prescribed burning, thinning and mulching trees, using herbicide on exotic and weedy vegetation, and planting longleaf pine

seedlings. Such management comes with inherent growing pains; namely, it will make the site look somewhat ugly before time allows it to rebound with greater natural beauty.

The name Fall Line Sandhills comes from the tract's transitional location and predominate upland habitat. The Fall Line is the boundary between the crystalline bedrock of the Piedmont physiographic province just to the north and the sedimentary conditions of the Coastal Plain province found here. As streams flow across this boundary, they more readily erode the sandy Coastal Plain side, creating cascades at the transition. When strung together across the state and beyond, these cascades, or falls, create a fall line.

This transition coincides with the shoreline of ancient seas and just below it are remnant beach dunes. Today, these landlocked dunes have unique plant and animal communities on deep sandy soils characterized by ecologists as sandhills. Many Coastal Plain plants and animals are very dependent on this habitat type.

Sandhills are dry and relatively harsh ecosystems in which only specialized plants and animals can thrive. Many of the animals found in sandhills survive the dog days of summer by living in burrows they or other animals dig. Solitary wasps, oldfield mice and gopher tortoises construct burrows in sandhills, their location made conspicuous by the presence of a mound of excavated, clean sand deposited in front of the opening.

Some 300 species of animals are known to use the burrows of gopher tortoises for shelter from summer heat, winter cold, natural fires and predators.

Fall Line Sandhills WMA also contains several isolated wetlands. This wetland type is characterized by the absence of connection to a stream drainage, inundation (or filling) that occurs primarily through rainfall, and periodic, often seasonal, drying.

These characteristics are critical to many invertebrates and amphibians because they prevent the establishment of predatory fish. Obviously, fish cannot survive in wetlands that frequently dry up, but semi-aquatic species like gopher frogs need only temporarily available water for breeding and larval growth. These species do not have natural defenses to predatory fish and thus must seek such fishless wetlands to complete their life cycle. When the wetlands are dry, adult amphibians retreat to the nearby sandhills where they usually burrow below the soil.

Fall Line Sandhills is what DNR once called a natural area, a state property (thus belonging to all Georgians) protected and managed to conserve the ecosystems it includes. The primary management is for restoration of natural species and habitat diversity, and for scientific research and education.

Outdoor recreational opportunities are also allowed to the extent that these secondary uses do not conflict with primary uses.

Recreational uses allowed at Fall Lines Sandhills WMA include hunting, nature observation, hiking and picnicking. Deer, turkey and small game (except fox squirrels) can be hunted here in season. Please consult the annual hunting regulations booklet for details on seasons and regulations.

To get to Fall Line Sandhills WMA, from the intersection of Ga. 96 and U.S. 19 in Butler go west on Highway 96 (toward Columbus) 2.6 miles to Taylor County Industrial Park, then turn right. A kiosk will be on the left side of the road.

John Jensen is a natural resources biologist with the Wildlife Resources Division's Nongame Conservation Section.