

by Jacqueline J. Britcher

Woodpeckers Find a Home at Fort Bragg



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Banding red-cockaded woodpeckers allows researchers to monitor the bird's status.

Opposite page: Prescribed burning at a red-cockaded woodpecker nesting area maintains the open woodland habitat needed by these birds.

Below: Banded red-cockaded woodpecker nestlings.

Fort Bragg and Camp Mackall occupy over 160,000 acres (65,000 hectares) of North Carolina. Both are located within an area known as the Sandhills Region, and they cover parts of six counties. These reservations, along with adjacent areas, comprise the state's largest remaining contiguous block of longleaf pine-wiregrass forest, an ecosystem that once dominated the southeastern coastal plain. Supporting military training is the Army's priority, but it is also committed to conservation. By focusing resource management at the ecosystem level over the last 15 years, Fort Bragg has made tremendous steps in habitat restoration and wildlife conservation while maintaining the military mission.

Until the late 1800s, old-growth longleaf pine forests were plentiful, but by the early 1900s these forests were being decimated due to several factors, including naval store industries (tar, pitch, and

turpentine made from pines), logging practices, agriculture, development, conversion to plantations growing other pine species, and fire suppression. Only 2 to 3 percent of the approximately 93 million acres (38 million ha) of incredibly diverse longleaf pine ecosystem remains today. As a result, a number of the endemic species are now listed as threatened or endangered.

Sound landscape-level management practices and cooperative agreements with local landowners within the Sandhills are imperative for the survival of this rare ecosystem. On Fort Bragg and Camp Mackall, 23 vegetative communities support a high diversity of rare flora and fauna, including three endangered plant species, one endangered insect species, and one endangered bird species, the red-cockaded woodpecker (*Picoides borealis*) or, as it's often called, the RCW.

The RCW is the most recognized endangered species on Fort Bragg and is a focus for management efforts. It is uniquely adapted to the fire-maintained longleaf pine forests and is considered an indicator species reflecting overall ecosystem health. Since nesting and foraging habitat requirements for this bird are key attributes of the longleaf pine forest, restoration and conservation efforts for the RCW are also valuable to multitudes of other species.

An RCW family group occupies an aggregate of cavity trees, or "cluster." Over 425 managed clusters and 5,000 individual cavity trees are distributed across Fort Bragg. During the 2005 breeding season, 414 clusters were occupied with an estimated 347 potential breeding groups. Most of these clusters and cavity trees are now protected by 200-foot (60-meter) buffers, which limit some military



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training activities. Species recovery and delisting are the ultimate goal for all federally listed species, and the only way the RCW can be recovered is by habitat enhancement and protection. Fort Bragg has made significant steps towards achieving this goal.

The RCW groups on Fort Bragg comprise most of the North Carolina Sandhills East population. Fort Bragg has one of 10 designated recovery populations, with a goal of 350 potential breeding groups. The Sandhills East population includes demographically associated RCW groups on nearby lands, if the birds and habitat are protected in perpetuity. The agreement to count specific RCW groups outside the installation towards the Sandhills East population goal will continue, based on the success of the North Carolina Sandhills Conservation Partnership.

Created in 2000, the Partnership is a group of several organizations that share responsibility and management of the Sandhills ecosystem. Federal and state agencies, as well as other local interests and private landowners, participate in working groups within the Partnership to develop and implement management plans, share information, and provide assistance. In 2005, 21 RCW groups occupied Partnership lands, in addition to the 347 groups estimated on Fort Bragg. The overall estimate for the Sandhills East population was 368 potential breeding groups, exceeding the minimum 350 milestone towards long-term recovery of the population.

Fort Bragg achieved this milestone by aggressive management practices that include the restoration of foraging habitat through prescribed burning; thinning of young, thick pine stands; and mechanical and chemical treatments of hardwood midstory prior to implementing a 2 to 3 year burn cycle. Increases in the population are also attributed to another significant management tool, an artificial cavity program. Priorities ensured sufficient suitable cavities for existing RCW groups before providing recruitment clusters to establish new groups.

It is critical to continue these management programs on Fort Bragg and surrounding properties in order to ensure long-term recovery of the Sandhills East population. As dedicated management allows the population to grow, the U.S. Fish and Wildlife Service will likely reduce military training restrictions on the installation.

Fort Bragg also has programs for other listed species found on the base. Survey, monitoring, and restoration programs are in place with current or recent research projects. In support of ecosystem diversity, the installation participates in the national Monitoring Avian Productivity, Survivorship, and Winter Survival studies and other inventories for rare species such as plants, bats, aquatic wildlife, amphibians, and reptiles. Installation personnel documented new species records for the state and counties, and they discovered two species new to science, the Sandhills spiny crayfish (*Cambarus (Puncticambarus) hystricosus*) and the Sandhills lily (*Lilium pyrophilum*).

Identifying and monitoring these rare and endangered species while continuing ecosystem management will enable the Army to take a leadership role in natural resource stewardship while maintaining a sustainable environment for its training mission.

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