



Red-cockaded Woodpecker

Picoides borealis

In the world of North American woodpeckers, red-cockaded woodpeckers stand out as an exception to the usual rules. They are the only woodpeckers to excavate nest and roost sites in living trees. Living in small family groups, red-cockaded woodpeckers are a social species, unlike others. These groups chatter and call throughout the day, using a great variety of vocalizations. And they are one of only two woodpecker species protected by the Endangered Species Act. The other protected woodpecker species, the ivory-billed, had been assumed extinct for decades until sightings on a national wildlife refuge in the Southeast. The U.S. Fish and Wildlife Service is working with Federal and State agencies and private landowners to keep red-cockaded woodpeckers from sliding to extinction.

It's all about the habitat

Red-cockaded woodpeckers live in mature pine forests—specifically those with longleaf pines averaging 80 to 120 years old and loblolly pines averaging 70 to 100 years old. From the late 1800s to the mid 1900s, red-cockaded woodpeckers declined rapidly as their mature pine forest habitat was altered for a variety of uses, primarily timber harvest and agriculture. Pine savannahs and open woodlands once dominated the southeastern United States and may have totaled more than 200 million acres at the time of European colonization. Longleaf pine communities may have covered 60 to 92 million of those acres. Today, fewer than 3 million acres remain. Listed in 1970 as endangered, red-cockaded woodpeckers once ranged from Florida to Maryland and New Jersey, as far west as Texas and Oklahoma, and inland to Missouri, Kentucky, and Tennessee. About 1 percent of their original range remains.



Eric Spadgenske/USFWS

Red-cockaded woodpecker at its nest site, a tree crevice.

Home is where the trees are

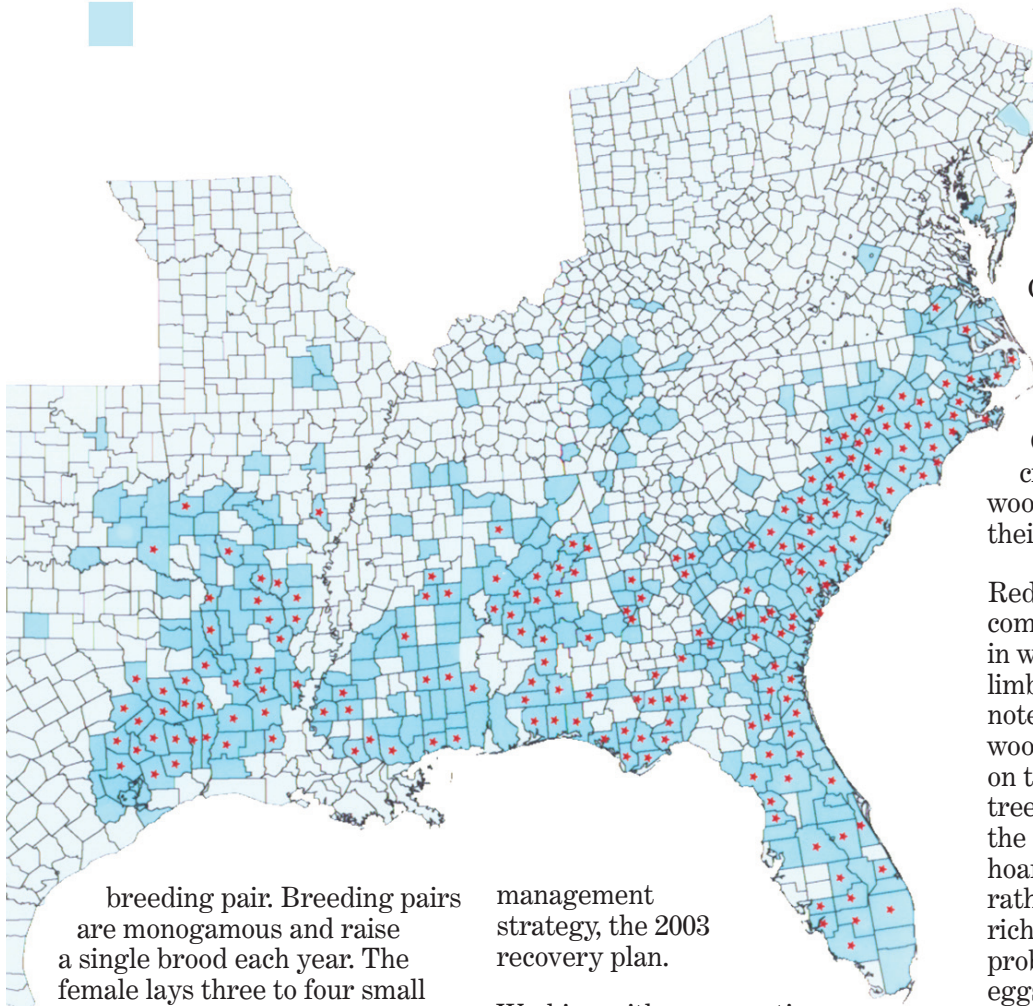
About the size of cardinals, these woodpeckers excavate cavities exclusively in living pine trees, preferring older pines infected with the fungal red heart disease that softens heartwood. The birds need up to three years to excavate the cavities they use for nesting and roosting. The woodpeckers are faithful to their cavity trees, and each member of the group has its own roost cavity. Cavity trees occupied by a group are called a cluster and may include 1 to 20 or more trees on 3 to 60 acres. Red-cockaded woodpeckers peck holes around actively used cavities. These small wells exude resin that coats much of the tree. The birds keep the resin flowing as a defense against rat snakes and other predators.

Red-cockaded woodpeckers play a vital role in the intricate web of life of southern pine forests. A number of birds and mammals

use the nest cavities that the woodpeckers excavate—such as chickadees, bluebirds, titmice, and species including the downy, hairy, and red-bellied woodpeckers. Larger woodpeckers may take over a red-cockaded woodpecker cavity, sometimes enlarging the hole enough to allow screech owls, wood ducks, and even raccoons to move in. Flying squirrels, several species of reptiles and amphibians, and insects, primarily bees and wasps, also use red-cockaded cavities.

Raising the roost

Red-cockaded woodpeckers live in groups with a breeding pair and as many as four helpers, usually male offspring from the previous year. Each group needs about 200 acres of old pine forest to support its foraging and nesting habitat needs. Juvenile females generally leave the group before the breeding season to join a solitary male group and form a new



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breeding pair. Breeding pairs are monogamous and raise a single brood each year. The female lays three to four small white eggs in the roost cavity. Group members incubate the eggs for 10 to 12 days and feed the hatchlings ants, beetles, caterpillars, corn ear worms, spiders, centipedes, wood-boring insects, and other insects that the adults eat. About 15 percent of their diet includes seasonal wild fruit. Chicks remain in the nest cavity for about 26 days.

Build it, and they will come

Planting longleaf pine trees and conducting controlled burns to remove undergrowth to create the open, park-like areas that the woodpeckers like has helped the recovery effort, along with developing artificial cavities and relocating birds. In 10 years, red-cockaded woodpecker groups have increased nearly 30 percent to about 6,000. Artificial cavity construction has enhanced clusters and established new groups. Moving isolated woodpeckers to these new habitats has reduced the likelihood of extinction and increased genetic diversity. Still, even at the current rate of growth, it will take decades to restore the species to a secure status in the wild, according to a

management strategy, the 2003 recovery plan.

Working with conservation partners, the U. S. Fish and Wildlife Service created the red-cockaded woodpecker recovery plan featuring the participation of other Federal and State agencies and private landowners. Because many large landscapes that provide habitat are on Federal land, the U. S. Forest Service and the Department of Defense have developed special management guidelines for the woodpeckers on national forests and military installations. From 1994 to 2002, red-cockaded woodpecker populations increased as much as 50 percent at six military installations

that include primary core populations required for delisting. These are Eglin Air Force Base (Florida), Fort Benning (Georgia), Fort Bragg (North Carolina), Fort Polk (Louisiana), Fort Stewart (Georgia), and Marine Corps Base Camp Lejeune (North Carolina). Recovery initiatives by private landowners are also conserving this species. For example, under a Safe Harbor Agreement, North Carolina's Pinehurst Resort is creating habitat for red-cockaded woodpeckers and helping to ensure their long-term future.

Red-cockaded woodpeckers rarely come to the ground. They even bathe in water-filled depressions on tree limbs. Recent research, however, notes that female red-cockaded woodpeckers search for bone bits on the forest floor and stuff them in tree crevices. Zoologists say that is the first known instance of a bird's hoarding something for its mineral, rather than caloric content. Calcium-rich bone is not rare, but the birds probably seek it to ensure stronger eggshells. They stash it in a tree so they won't have to eat on the ground where they are vulnerable to predators.

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(top): Range map of the red-cockaded woodpecker.

(left): The male has a small red patch, or "cockade" on each side of his black cap.