

The Red-Cockaded Woodpecker

Example of a Population Suffering from Forest Fragmentation and Fire Policy

The red-cockaded woodpecker is a good example of the effects of forest fragmentation. The preferred pine-wiregrass savannah habitat of the red-cockaded woodpecker was once widely distributed across the southeastern United States. However, fire management, deforestation, forestry practice, and other changes in land use have reduced and fragmented this once common and relatively contiguous ecosystem type. Consequently, remaining populations of the once abundant and widespread red-cockaded woodpecker are fragmented, small, and isolated.

Life History: Red-cockaded woodpeckers live in extended family groups known as clans or colonies. These consist of a single breeding pair, young birds, and sons of the breeding male. The entire clan helps in territory defense. The breeding male can live for several years. When he dies, one of his sons typically inherits the breeding territory. Red-cockaded woodpeckers breed from late April to July. The breeding female lays between two and four eggs, and all members of the clan help incubate and feed the young. Red-cockaded woodpeckers eat various insects, spiders, and other invertebrates found under bark and in the dead limbs of trees.



Above: A Red-Cockaded Woodpecker on a Longleaf Pine

Habitat: Red-cockaded woodpeckers live in old-growth (60-70+ years) loblolly, shortleaf, and especially slash and longleaf pine forests. Nesting and roosting cavities are made only in living pine trees over 60 years old, often trees with red-heart disease. These trees produce large amounts of resin around the woodpeckers' cavities. The birds also peck out "sap wells", half-dollar sized wounds which bleed resin onto the tree trunk. The sap-encrusted tree can resemble a large candle and is often easier to identify than the bird. The resin is thought to discourage potential predators, such as the black rat snake, from climbing the tree and attacking the woodpeckers. Ideal colony sites are located in parklike stands of pines with little or no understory growth. Foraging habitat of the woodpecker includes extensive pine or pine-hardwood forests. Fire plays an important part in maintaining red-cockaded woodpecker habitat by eliminating hardwood undergrowth.

Description: The red-cockaded woodpecker averages about 7.25 inches (20 cm) long. It has a black-and-white barred back and a solid black cap and nape. It has prominent white cheek patches. The male has a tiny red tuft behind the eye, near the ear (the cockade). The call notes of the red-cockaded woodpecker are raspy and nasal sounding.



Above: A biologist attaches a band to a red-cockaded woodpecker as part of a study of their population and habitat.

Distribution: The historic distribution of the red-cockaded woodpecker included the southeastern United States. They ranged from Florida north to Virginia and west to eastern Texas and Oklahoma. In Oklahoma, they were restricted to the shortleaf pine area of southeastern Oklahoma. Several of the twenty or so large areas where the woodpeckers can still be found are on military bases, such as Eglin Air Force Base in the Florida panhandle.



Above: "Candle Trees" Identify Red-Cockaded Woodpecker Colonies

Left: Controlled or "prescribed" burns serve to maintain the pine woods by killing off competing shrubs and deciduous trees.

Right: A biologist from Eglin Air Force Base is part of a survey of red-cockaded woodpeckers and their habitat.



Causes of Decline: Red-cockaded woodpeckers have declined primarily due to the loss of suitable habitat. Short-term-rotation timber management of private and public forests has eliminated much of the old-growth pine forest necessary to maintain healthy woodpecker populations.

Recovery Needs: The top recovery tasks for the red-cockaded woodpecker include continued monitoring of individual populations, protecting and managing woodpecker habitat on public and private land, and continued research of red-cockaded woodpecker ecology.

Other information: The construction of artificial cavities shows promise as a useful management technique for establishing new colonies. The original recovery plan was revised in 1985.

Written and prepared by Jim Swan, for BIO 111 at Albuquerque TVI Community College

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<http://jimswan.com/111/succession/red_cockaded_woodpecker.htm>.

Questions:

1. What has happened to the pine-wiregrass savannah habitat? How did it happen?
2. What type trees do the red-cockaded woodpeckers prefer? (be specific)
3. Compare the historic distribution of woodpecker populations to that of today.
4. Fort Bragg, NC has a carefully monitored population of red-cockaded woodpeckers on base. What unique potential problems could exist for this population due to its location on an active military base?