



Globally Important Bird Areas



Eglin Air Force Base, Florida

Ornithological Highlight: Site of intensive and successful management to increase the population of Red-cockaded Woodpecker

Location: Panhandle, just east of Pensacola

- *Southeastern Coastal Plain* (NABCI Bird Conservation Region #27)
- *East Gulf Coastal Plain* (PIF Physiographic Area #04)

Size: 464,000 acres, of which more than half are accessible to the public

Ownership: U.S. Air Force

Habitats: Long-leaf pine savanna, rivers and streams, lakes, estuarine shoreline, and shoreline on the Gulf of Mexico.

Land-use: military base

Site description: Much of the base consists of sandhills and long-leaf pine savanna; other habitats include about 810 miles of rivers and streams, 32 lakes, 26,000 acres of other wetlands, and 20 miles of frontage on the Gulf of Mexico.

Birds: Eglin Air Force Base is an excellent place in which to see the birds of the long-leaf pine savanna community. The base is at present the fourth-best site for numbers of Red-cockaded Woodpecker, and the numbers are growing. As of August 2000 there were 301 active clusters of the bird on the installation, up over 4% per year since 1994. Management for the woodpecker has also resulted in a great increase in the number of the watch-listed Bachman's Sparrow. Near Eglin is *Blackwater State Forest* (189,374 acres) which has 20 clusters of Red-cockaded Woodpecker, and Brown-headed Nuthatch and Bachman's Sparrow, in addition to breeding Wood Thrush, and Prothonotary, Hooded and Swainson's warblers.

Conservation issues: Eglin's Natural Resources Branch and Virginia Tech University have just completed a five-year experimental assessment of Red-cockaded Woodpecker management. The purpose was to determine the most cost-effective way to manage this endangered species across the entire 464,000-acre military reservation. Base biologists and Virginia Tech researchers conducted a landscape-level ecological experiment using a standard scientific design, with four treatment groups and replicates of each. In this case the treatments involved different management strategies, and the replicates were different blocks of land on the base in which these strategies are followed. The simplest and cheapest strategy was ecosystem management,

in which the biologists applied management to promote the longleaf pine ecosystem in which the bird lives, but employed no single-species management techniques for the woodpecker. The most complicated and expensive strategy involved ecosystem management plus virtually every single-species management tool known to benefit the woodpecker. The other two strategies included only a subset of these single-species tools. Among the management tools are prescribed burning (land managers burn up to 50,000 acres each year), establishing artificial cavities, translocating young birds, and control of hardwood midstory through removal by mechanical means.

Researchers found that these strategies are able to produce high rates of growth of the woodpecker population on Eglin, and that the different management strategies resulted in appreciably different rates of population growth. Through five years the most expensive management treatment resulted in a 73% increase in the number of active cavity tree territories (clusters of cavity trees currently occupied), the next most expensive 53%, the next most expensive 32%, and the least expensive 11. All but the least expensive significantly exceed the base goal of 4% growth per year.

Now that experiment is complete, the researchers and land managers are weighing the tradeoffs between costs and conservation, but at the least there is solid scientific information to use in making these hard decisions. This information can be used to set reachable conservation goals for both ecosystem and single-species management and to make accurate projections as to the cost.

An important partner in natural resources management at Eglin is The Nature Conservancy, involved since 1990 in conservation planning and research at the base on managing and protecting habitat for the woodpecker and other rare species of the long-leaf pine community.

Visitor information: Visitors must have a permit for which there is a nominal charge; permits are available at the Natural Resources Division, Eglin AFB, 107 Highway 85 North, Niceville, FL 32578, tel. 850-882-4164.