by Greg Hagan and Ralph Costa



Red-cockaded woodpecker at its nesting cavity Photo by Greg Hagan

Rare Woodpeckers Reintroduced to North Florida

In 1970, the Fish and Wildlife Service listed the red-cockaded woodpecker *(Picoides borealis)*, or RCW, as an endangered species. Few biologists were optimistic about the long-term survival of the RCW, particularly on private lands, until the early 1990's. Since that time, however, the growing success of the Service's private lands conservation strategy has been providing new hope for saving the bird on private lands. The strategy is founded in the development of innovative conservation partnerships among the private, state, and federal sectors.

In March 1998, the Turner Endangered Species Fund (TESF) initiated just such a partnership with the Service. Other partners included the Forest Service, Florida Fish and Wildlife Conservation Commission, and The Nature Conservancy. The partnership was formed to investigate the possibility of establishing a "new" population of RCWs on the pine forests of the Turnerowned Avalon Plantation in northern Florida. This research represents the first attempt by a private landowner, state, or federal agency to reintroduce a population of RCWs where no founder population exists. Additionally, it is the first attempt to reintroduce RCWs to a second growth forest having no evidence of previously supporting RCWs, although the plantation is within the historic range of the species.

In recent years, the development of new conservation tools and techniques,

including artificial roost and nest cavities and the translocation of subadult birds, convinced the TESF that it was time to attempt establishment of a "new" population. The objectives of this reintroduction project are to: 1) restore a viable population of RCWs to Avalon Plantation that will persist with minimal management; 2) develop reintroduction techniques that can be used to promote recovery of the species throughout the southeast; and 3) clearly demonstrate that private landowners can coexist with this endangered species.

Preparations for translocations began in April 1998 when the TESF, in cooperation with the Forest Service, began banding RCW nestlings on the Apalachicola National Forest in northern Florida. This effort supplemented the Forest Service's own annual banding program. From the nestlings banded by the TESF, 20 subadult birds were



Installation of an artificial nesting cavity Photo by Todd Engstrom

available for translocation annually. Of these, five unrelated pairs (five males and five females) were translocated to five artificial "recruitment clusters" on Avalon Plantation. A recruitment cluster consists of four artificial cavities (insert boxes) installed in four different pine trees on about one acre (0.4 hectare). Approximately 60-75 acres (24-30 ha) of additional mature pine foraging habitat is associated with each cluster. The TESF facilitated the translocation of the remaining additional five unrelated pairs to other RCW populations selected by the Service.

November 5, 1998, was a historic day in the recovery of the red-cockaded woodpecker. Five subadult pairs were released simultaneously into previously unoccupied habitat on Avalon Plantation. Representatives from six different organizations witnessed this watershed event. On May 1, 1999, five birds (two breeding pairs and a solitary male) remained on the plantation. Four fledglings (three males and one female) were produced in 1999.

A second successful attempt to reintroduce five unrelated subadult pairs was carried out on October 14, 1999. Seven birds from this release remained on the plantation through the 2000 breeding season, resulting in the formation of an additional four breeding pairs on the plantation. Eight fledglings (seven females and one male) were produced in 2000. Currently, 23 RCWs, including 6 potential breeding pairs and a solitary male, reside on the plantation. Multiple pair reintroductions will continue until 30 potential breeding pairs are established.

The emerging success of the reintroduction project at Avalon Plantation exemplifies the types of conservation partnerships that are necessary to promote and ultimately save RCWs and other listed species on private lands. The Avalon project will not only establish a new population in north Florida, but will also potentially contribute to conservation and recovery of the RCW throughout the southeast. For example, under the Service's RCW "Safe Harbor" program, dozens of landowners have enrolled tens of thousands of acres that currently have no RCWs in the hope of someday harboring these endangered birds.

The ongoing TESF research on RCW reintroduction will help develop and refine the techniques, time, and costs required to establish new populations on private land. Additionally, the project will serve as a blueprint for federal and state agencies interested in restoring RCWs to public lands. Perhaps most importantly, however, the Avalon project provides a template for how private landowners and the Service can work together to conserve and restore listed species while continuing to meet the landowners' objectives.

Greg Hagan, a Conservation Biologist with the Turner Endangered Species Fund, is located at Avalon Plantation. Ralph Costa, the Service's Red-cockaded Woodpecker Recovery Coordinator, is stationed at the Department of Forest Resources, Clemson University, in Clemson, South Carolina.



Banding a nestling woodpecker U.S. Army photo



Biologists hope that RCWs will prosper in the open mature pine forests of the Avalon Plantation. Photo by Tracey Mader