by Lori Duncan, Lee Andrews, Ralph Costa, and Steve Lohr

A Safe Harbor for the Red-cockaded Woodpecker

 $T_{
m he\ red-cockaded\ woodpecker}$ (Picoides borealis), or RCW, is an endangered, non-migratory bird found only in the southeastern United States. This species breeds within family groups that typically consist of two to four individuals (including a breeding pair and one or more non-breeding helpers, usually male offspring from previous breeding seasons). Its habitat is generally mature pine forest stands greater than 60 years old with an open, fire-maintained herbaceous ground cover. The woodpeckers nest in cavities they excavate in living pine trees. From the late 1800's through the 1980's, most RCW populations suffered precipitous declines due to extensive logging, short-rotation forestry, the conversion of forests to non-forest uses, and habitat modification due to fire suppression.

In 1998, the Fish and Wildlife Service took a major step toward the ultimate recovery of the RCW by signing the South Carolina Red-cockaded Woodpecker Safe Harbor Agreement, a cooperative project with the South Carolina Department of Natural Resources (SCDNR). This program is voluntary for private landowners and is designed to encourage their participation in the recovery of the species.

Private landowners who agree to conduct land management practices beneficial to the RCW, under individually negotiated cooperative agreements with the SCDNR, can enroll in the program. These cooperative agreements identify the land management activities that the landowners agree to undertake and establish the baseline conditions present on the covered properties.



Photo © Derrick Hamrick



This open habitat is the product of a prescribed burn at the Brosnan Forest funded through the Endangered Species Landowner Incentive Program. Brosnan Forest, owned by the Norfolk Southern Railway, is managed by Mark Clement.

Photo by Lori Duncan

The baselines for RCW Safe Harbor agreements are generally expressed in terms of the number and composition of RCW groups present. Such baselines are required for determining the level of regulatory assurances that a private landowner will receive.

The regulatory assurances protect private landowners from additional management responsibilities under the Endangered Species Act if the RCW population increases as a result of the landowner's beneficial management practices. A landowner can withdraw from the program at any time, but the regulatory assurances provided by the Safe Harbor program are valid only if the landowner remains enrolled in, and in compliance with, the program.

Once enrolled, private landowners are responsible for maintaining the habitat necessary to maintain their baseline responsibilities and conducting activities that provide a net conservation benefit to the species. Often, this results in no significant changes to a landowner's management practices. For example, many participants operate hunting plantations where they maintain long timber rotations and regularly conduct prescribed burns. Both of these practices are beneficial

to RCWs, so little more would be expected of these landowners in order to maintain their baselines. Several participants have agreed to install artificial roosting/nesting cavities to encourage increases in their RCW populations. If new (i.e., abovebaseline) groups of RCWs become established on the landowner's property as a result of the enhancement activities, the landowner is not responsible for any additional management for these groups, nor is the landowner liable for any incidental take of these additional RCW groups (since they would not be present except for the actions of the landowner). In other words, the landowner can modify the habitat where the Safe Harbor groups exist, provided that the landowner's RCW baseline is maintained. Landowners must, however, inform state and federal authorities 60 days prior to performing an activity that may result in an incidental take of birds covered by a Safe Harbor agreement, and the activity must not take place during the RCW breeding season (to minimize direct effects on the birds). Incidental take is defined as take that is incidental to, but not the purpose of, an otherwise lawful activity.

Benefits to Landowners

The Safe Harbor program has many benefits to private landowners, but the primary incentive is the certainty they gain regarding future land use on their property. They may conduct RCWcompatible management actions on their lands without the fear that additional birds will result in land use restrictions. This type of certainty has garnered the program significant support from participants. Without the Safe Harbor program's regulatory assurances, some of these private lands (or portions thereof) would not likely continue to serve, at least of the long term, as RCW habitat.

Benefits to RCWs

Safe Harbor agreements benefit the RCW by helping to restore or enhance occupied or potential habitat for the species. In many cases, private land that is currently capable of serving as RCW habitat or land that could be made suitable for the species is not being managed for RCWs due to the perception that their presence will restrict traditional land uses or future development. As a result, many landowners have managed their forests in ways that are not beneficial to RCWs, including

conversion to short rotation silviculture and the elimination of natural fire regimes. By removing this disincentive, the Safe Harbor program has encouraged management of southern pine stands, particularly longleaf pine, that favors the RCW and other species dependent on fire-maintained ecosystems. In this way, the Service is cooperating with the SCDNR, non-governmental organizations, timber companies, and other private landowners to assist with the conservation and recovery of the RCW and its associated habitat in South Carolina.

Program Successes

The early results of the South Carolina RCW Safe Harbor Program are promising. As of January 2001, the Program had 48 properties enrolled or pending enrollment, encompassing more than 143,272 acres (58,004 hectares) containing 191 RCW groups. This accounts for about one-third of the RCWs known to occur on private lands in South Carolina. Landowners have enrolled tracts ranging in size from 81 to 16,000 acres (33 to 6,475 ha) in the program. The population of RCWs on private land in South Carolina has increased by at least eight groups since the Safe Harbor program began.

Another positive aspect of the program is that landowners have less anxiety over federal laws and the participation of the Service in private lands management. This has helped alleviate negative feelings and fears about the RCW itself. Many landowners are actually developing an affinity for "their" RCWs and are seeking to increase the population on their lands once they have enrolled in the program.

Landowner Incentives Program

The South Carolina RCW Safe Harbor Program received \$405,000 in Fiscal Year 1999 and \$85,000 in Fiscal Year 2000 under the Service's Landowner Incentives Program. These funds are provided directly to landowners to



In addition to prescribed burning at the Brosnan Forest, the Endangered Species Landowner Incentive Program has funded the installation of artificial nesting cavities for red-cockaded woodpeckers.

Photo by Lori Duncan

perform Safe Harbor-related management activities. According to Mr. Al Epps, consulting forest manager of the Good Hope Plantation, "The money provided by the Landowner Incentives Program has helped us get things done for the woodpecker that we couldn't normally tackle due to other priorities and funding problems. We enjoy having the birds on Good Hope Plantation, but they aren't our top management priority. We appreciate Fish and Wildlife's help to do what's right for the birds, and we hope the funding will continue. Nothing encourages a landowner to protect endangered species more than some type of financial incentive."

In 1999, 23 program participants used funding from the Landowner Incentives Program to enhance or restore habitat for the RCW. The funding ranged from \$1,500 to \$68,400 per landowner, and it was used for a variety of activities including prescribed burning of 21,802 acres (8,823 ha),

installation of 164 artificial cavities, and planting 260 acres (105 ha) of longleaf pine (Pinus palustris). These activities directly benefitted 127 RCW groups on these properties. In 2000, 14 enrollees conducted prescribed burns on 5,780 acres (2,340 ha) and installed 86 artificial cavities, including 7 recruitment clusters.1 This work benefitted 26 existing groups. In addition, \$40,000 of the Fiscal Year 2000 Landowner Incentive Program funds are funding costshare baseline surveys for new Safe Harbor participants.

The growing involvement of private landowners in these cooperative programs is giving us all hope for the future of the RCW and associated species.

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¹Recruitment clusters are essentially designated areas established to encourage the formation of a new group. The cluster itself will be 10 acres (4 hectares) or so in size. Four or more pines within the cluster will be given artificial cavities for the birds. Some 100+ acres (40+ ha) of contiguous foraging habitat adjacent to the cluster (or surrounding it) will burned, have the hardwoods removed, and basically be made into quality RCW habitat. Once the cavities are installed and the foraging habitat prepared, dispersing RCWs will find the site and take up occupancy.