

Species Conservation Guidelines

South Florida

Red-cockaded Woodpecker

The Species Conservation Guidelines for the red-cockaded woodpecker (*Picoides borealis*) provide a tool to determine if a project may adversely affect the red-cockaded woodpecker. Here we describe what actions might have a detrimental impact on red-cockaded woodpeckers and how these effects can be avoided or minimized.

Life History

The Fish and Wildlife Service (Service) federally listed the red-cockaded woodpecker in 1970 and classified it as endangered in Florida due to destruction and degradation of its habitat. The *Revised Recovery Plan for the Red-cockaded Woodpecker* (Recovery Plan) (Service 2003) provides information on habitat needs, territory sizes, and species biology. The Service also views this guidance as applicable to section 7 and 10 consultations as a tool to minimize adverse effects to the red-cockaded woodpecker. In addition, the *South Florida Multi-Species Recovery Plan* (Service 1999) provides a synopsis of red-cockaded woodpecker ecology in this area.

Habitat

The red-cockaded woodpecker is non-migratory, territorial, and lives in cooperative breeding social units called groups. It uses mature pine trees to develop nest cavities and is the only North American woodpecker that excavates its roost and nest cavities in living trees. Active cavities can be easily identified by their resin flow pattern (Wood 1996). Cavities are the most valuable habitat property as they can take 3 years or more to excavate (Service 1999). Cavities are periodically abandoned and reoccupied (Doerr et al. 1989). If a cavity is abandoned for more than 5 years there is a low probability of reoccupation. Cavity trees tend to be aggregated into areas known as "clusters." The cluster is made up of active (in use) and inactive (previously used) cavity trees within an area defended by a single group (Walters et al. 1988). Suitable nesting habitat for the red-cockaded woodpecker include pine stands, or pine-dominated pine/hardwood stands, with a low or sparse understory and ample old-growth pines (Service 1999). Trees must be more than 60 years old to be suitable for cavity construction. Longleaf pine (*Pinus palustris*) is preferred where available, however, cavities are also constructed in all other pine trees in Florida with the exception of sand pine (*Pinus clausa*) and spruce pine (*Pinus glabra*) (Hovis and Labisky 1985). South of the longleaf pine range, red-cockaded woodpeckers typically use slash pine (*Pinus elliottii*) (Beever and Dryden 1992). Other habitats, such as areas with sparse pine canopies, melaleuca (*Melaleuca quinquenervia*) or Brazilian pepper (*Schinus terebinthifolius*) invasion, mixed pine/cypress habitats, cypress heads, and very young pine

habitats, are used in south Florida, although this habitat use may not be typical throughout its range. In south Florida, red-cockaded woodpeckers will also forage in young pine trees and traverse open prairie-type habitats to reach forage areas (Beever and Dryden 1992). Home ranges for red-cockaded woodpeckers average 141-162 ha (350-400 acres) in southern and central Florida, and can exceed 200 ha (494 acres) in southwest Florida due to low productivity of this area (Beever and Dryden 1992). Red-cockaded woodpeckers frequently disperse up to 5 km (3.1 mi) from their natal cluster to form new clusters (Walters 1990).

Distribution

Red-cockaded woodpecker populations are widespread, but small and disjunct in the south Florida region. Substantial clusters of red-cockaded woodpeckers occur in Three Lakes Wildlife Management Area (Osceola County), Avon Park Air Force Range (Highlands County), Cecil M. Webb Wildlife Management Area (Charlotte County), and Big Cypress National Preserve (Collier and Monroe Counties) with scattered small populations throughout the service area. There is no designated critical habitat for the red-cockaded woodpecker.

Determination

To help in determining whether your project may affect the red-cockaded woodpecker the SLOPES flowchart for the red-cockaded woodpecker can be used as a guide (Fig. 1). The first step requires project-specific information that generally includes a project description, habitat maps, and project location. Though nest sites may be off the property if the red-cockaded woodpecker uses the property as a foraging area the Service considers it occupied because the habitat fulfills the species life history needs. The Service uses a 200-ha (494 acres) circular area as the furthest point that would allow for overlap of an off-site territory onto the property. As such, a 0.8-km (0.5 mi) buffer around the project should be identified on the habitat maps and considered in habitat use.

Suitable habitat for red-cockaded woodpeckers would include FLUCCS categories Upland Coniferous Forest (410), Pine flatwoods (411), Longleaf Pine - Xeric Oak (412), and Pine - Mesic Oak (414). Hydric slash pine flatwoods can be difficult to identify from aerial and FLUCCS maps. In these habitats only mature pines (greater than 60 years old) are important as nesting trees (Beever and Dryden 1992), but these can be as small as 15.2 cm (6 in) dbh.

You can check occurrence records of red-cockaded woodpeckers in your area through the Florida Natural Areas Inventory (<http://www.fnai.org/>).

If no suitable habitat [mature pines greater than 15.2 cm (6 in) dbh is present in the project area and buffer, then no effect to red-cockaded woodpeckers is anticipated and other Federal action can proceed.

If suitable habitat is present the red-cockaded woodpecker is likely to be adversely affected. There are two options available. **Option a** provides for the use of surveys of the property to determine the presence or presumed absence of red-cockaded woodpecker. While **option b** assumes that suitable habitat support red-cockaded woodpecker.

Two types of surveys are needed for the red-cockaded woodpecker: cavity tree and foraging area. See the survey protocols in Appendix A for more details. These protocols are the minimum level of effort the Service believes necessary to determine the presence or absence of this species in the area. If surveys do not detect the presence of the red-cockaded woodpecker on the property and buffer, then the project is no likely to adversely affect red-cockaded woodpeckers.

If surveys detect the red-cockaded woodpecker, suitable habitats are assumed to support the species (**option b**), or it is known to be present on the property, then the project may affect the red-cockaded woodpecker and conservation measures should be implemented to minimize adverse effects.

Conservation Measures

To facilitate conservation, management is based on the cluster. For this purpose the cluster is the minimum convex polygon containing all cavity trees in use by a group of red-cockaded woodpeckers and a surrounding 61-m (200 ft) wide area of continuous forest. The occupied habitat consists of the cluster and foraging area, a 0.8- km (0.5 mi) wide area surrounding the cluster.

The Service encourages users to use the Recovery Plan (Service 2003) for any on-site preservation, enhancement, or management actions they propose that may have an effect on the red-cockaded woodpecker. The Recovery Plan also provides guidance for off-site compensation needs for occupied habitat losses.

The Service strongly recommends that occupied habitats be avoided and preserved. The first measure is to modify the project footprint to avoid direct impacts to red-cockaded woodpecker habitat. This habitat could be designated as an environmentally sensitive area and set aside by deed restriction, easement, or other protective covenant. If the occupied habitat on the property exceeds 2 ha (5 acres), then a habitat management plan is also recommended. The incorporation of these recommendations into the project design and documented in the habitat management plan can result in the project not likely to adversely affect the red-cockaded woodpecker.

DRAFT

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On-site habitat enhancements are recommended by the Service in situations where a project proposes to impact occupied red-cockaded woodpecker habitat. If the site has been physically altered by exotic species invasion, lack of fire, or other anthropogenic actions. These alterations have produced on-site habitat conditions that have resulted in marginally suitable habitats for the survival and propagation of the red-cockaded woodpecker. The planned action, through project redesign, has avoided impacting a substantial portion of the habitat; however some habitat loss will still occur. The project proposes on-site habitat enhancements and management actions that provide habitat quality improvements that balance losses of small amounts of marginally suitable habitats. The incorporation of these recommendations into the project and documented in a habitat management plan can result in the project not likely to adversely affect the red-cockaded woodpecker.

The remaining measures available to minimize adverse effects to the red-cockaded woodpecker are those associated with projects where on-site habitat avoidance, preservation, or enhancement are insufficient or are not appropriate and take of red-cockaded woodpecker is likely. If on-site habitat modifications reduce suitable habitats below 200 ha (494 acres) (including off-site area) then take is likely. When take is likely, the project is likely to adversely affect the red-cockaded woodpecker and compensation is a possible option. The Service has developed measures that are applicable to projects where compensation for adverse effects is appropriate. These measures, which further the Service's goals for conservation and recovery of the species, are discussed in detail in the Recovery Plan (Service 2003: 119). The Service prefers compensation on site or nearby. If these option are not available then compensation at the nearest red-cockaded woodpecker conservation area is a second option. Contact the Service at the earliest possible time to discuss these compensation options.

Reports

Habitat Management Plan

A Habitat Management Plan is necessary when a project may affect the red-cockaded woodpecker. In general, the plan includes a biological report, compensation options, and any land preservation covenants. Habitat management options are listed in the Recovery Plan (Service 2003: 71). If habitat enhancements are proposed, the management plan needs to include a habitat monitoring component. Population and habitat monitoring is an essential aspect of the red-cockaded woodpecker management and recovery. Only through accurate monitoring can we determine the success and failure of our management actions, and adapt these actions accordingly. Appropriate intensity of monitoring varies with population size, role in recovery, and management objectives. Sections 3A, 8C, 8D, and Appendix 2 of the Recovery Plan (Service 2003) describes basic monitoring techniques.

Biological Report

In general, the report should include a project introduction, proposed action, project habitat descriptions, project effects, recommendations to minimize species effects, conclusions, and commitments. The report should also include the survey report, survey data sheets, and territorial boundaries of the cluster, if red-cockaded woodpeckers are present. Refer to Service (2004) for a more detailed discussion of report requirements, format, explanations of common ESA questions, and level of detail needed in the report.

Literature Cited

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GIS Data

None available.

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APPENDIX A

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South Florida

Survey Protocol