

Assessment of Midwestern Golf Courses as Breeding Habitat for the Red-headed Woodpecker

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Objectives:

1. Identify habitat and landscape features of golf courses used by red-headed woodpeckers.
2. Examine nesting success on golf courses and identify if microhabitat and landscape features are associated with nest fate.
3. Develop and distribute a set of management prescriptions to create and/or maintain red-headed woodpecker habitat on midwestern golf courses.

Start Date: 2001

Project Duration: 2 years

Total Funding: \$35,952

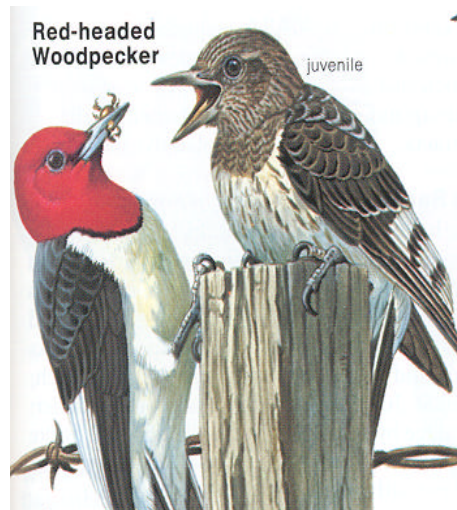
The red-headed woodpecker is one of the most easily recognized and striking birds in North America. From the 1700s to early 1900s, red-headed woodpeckers were common in farmlands and woodlots of the central and eastern U.S. and southern Canada.

However, Breeding Bird Survey data from 1966-1999 indicate that red-headed woodpeckers have shown strong declines throughout their North American range, including declines in 15 states. Contributing to its decline are factors such as forest expansion in the northeastern U.S., loss of orchards, fire suppression, decline of oak-savannah habitat, "clean" farming practices, and the removal of dead limbs and trees in urban areas.

Despite population declines, conservation of red-headed woodpeckers holds much promise because the habitats used by these birds are structurally similar to some human-dominated habitats. Red-headed woodpeckers occur within a variety of open deciduous woodlands with large oak trees, low tree density, open understory, and availability of dead limbs and/or snags.

Thus, scattered large trees and open lawn areas typical of many golf courses have potential to provide breeding habitat. Given their attractiveness, conspicuous behaviors, and recent population declines, red-headed woodpeckers can also be an excellent visible symbol of wildlife conservation on golf courses of some midwestern states.

Because red-headed woodpeckers are most common in midwestern states, our research focuses on golf courses in Ohio and Indiana. From November, 2001 through March, 2002, 50-75 private and public golf courses will be selected in both



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urban and rural areas. In May-July, 2002 and 2003, golf courses will be surveyed for red-headed woodpeckers using transects and playback recordings. If woodpeckers are detected, we will conduct additional observations to locate nests. A subset of nests will be monitored to determine their success or failure and to estimate nest productivity.

We will measure a range of habitat characteristics throughout the golf course and immediately surrounding nest trees. Some characteristics, such as golf course area, percent lawn, and land uses in the adjacent landscape (e.g. urban, agriculture, forest), will be assessed from maps and aerial photographs. From this information, we will

develop a set of management prescriptions to create and/or maintain red-headed woodpecker habitat on midwestern golf courses.

This study of red-headed woodpeckers on golf courses will have several important consequences for wildlife conservation efforts. By recommending specific and appropriate management prescriptions, we hope to ensure the continued suitability of red-headed woodpecker habitat on used sites and enhance habitat on non-used sites.

In addition, because this project will identify habitat features important to red-headed woodpeckers in human-dominated landscapes, our recommendations can be applied to urban/suburban areas, especially cemeteries, parks, and schools. Assessing and improving the potential of golf courses to provide habitat for red-headed woodpeckers also directly contributes to efforts made by several groups concerned with bird conservation, and particularly Partners-In-Flight and National Audubon Society who have listed the red-headed woodpecker as a priority species.

Summary Points

- Researchers will conduct surveys for red-headed woodpeckers on 50-75 golf courses in Ohio and Indiana in 2002 and 2003.
- Researchers will determine important habitat and landscape features associated with golf course use by red-headed woodpeckers and high levels of nesting success.
- This research will generate management prescriptions that should enhance, maintain, or create suitable breeding habitat for red-headed woodpeckers on golf courses.