

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, Red-headed Woodpeckers have shown strong declines throughout their North American range during the last several decades. 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 turf 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.

From May-August 2002, 81 private and public golf courses in Ohio were censused for Red-headed Woodpeckers using transects and playback recordings. When woodpeckers were detected, we conducted additional observations to locate and monitor nests and study foraging behavior.

A range of habitat characteristics throughout the golf course and immediately surrounding nest trees were measured. Landscape characteristics, such as golf course area, percent turf, and land uses in the adjacent landscape (e.g. urban, agriculture, forest), will be assessed from maps and aerial photographs.

A total of 190 Red-headed Woodpeckers were detected at 22 golf courses (27%), with most birds occurring in northern Ohio. The average number of birds on courses was 0.9 in central Ohio compared to 3.7 per course in the North. We located 32 active nests on golf courses and extensively monitored six nests (100% successfully raised young). Foraging data were collected on 62 woodpeckers. Analysis of habitat and landscape relationships is in progress.

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



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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.

Summary Points

- Red-headed Woodpeckers occurred on 27% of 81 surveyed courses, and most birds were breeding on the course. All monitored nests successfully produced young.
- Researchers will determine important habitat and landscape features associated with golf course use and successful reproduction by Red-headed Woodpeckers.
- This research will generate management prescriptions that should enhance, maintain, or create suitable breeding habitat for Red-headed Woodpeckers on golf courses.