

Burrowing Owl Conservation on Golf Courses

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Objectives:

1. Compare burrow occupancy and reproductive success between artificial burrows on and off golf courses.
2. Determine the level of golfer activity that nesting owls will tolerate.
3. Quantify the landscape features surrounding artificial burrows on golf courses that are preferred by nesting owls.
4. Document the proportion of golfers that observe resident owls, the recreational value of their round of golf after breeding owls have occupied artificial burrows, and their interest in observing owls while golfing.
5. Promote artificial burrow installment on golf courses across western North America by producing and distributing a pamphlet explaining the value of installing nesting burrows on their golf course.

Start Date: 2000

Project Duration: 3 years

Total Funding: \$85,300

Habitat fragmentation and the impact of human development continues to threaten the survival numerous animal species. Burrowing owl populations are declining throughout their range in North America, yet large-scale conservation programs to reverse declines are lacking. Burrowing owls are attracted to golf courses for foraging because they prefer short grass, open areas.

Burrowing owls rely on existing burrows in which to nest and limited burrow availability is thought to be one factor contributing to their declining population. Golf courses across the country could play a significant role in helping to restore burrowing owl populations if nesting burrows were made available on local golf courses.

Our project involves installing artificial nesting burrows on seven golf courses in eastern Washington. We will expand our project nationally to golf courses around the country if our pilot study demonstrates that burrowing owls can successfully locate and use artificial nesting burrows on golf courses.



Dr. Courtney Conway discusses how man-made burrows are constructed for burrowing owls to use on golf courses.

The end result will be a publishable pamphlet that can be distributed to superintendents and grounds crews at golf courses around the country instructing them exactly how and where to install successful nesting burrows. The pamphlet will also provide a list of materials needed, cost, and where to purchase the materials.

This year was the first year of our Wildlife Links project and we have already installed 104 artificial nesting burrows on our seven partner golf courses in eastern Washington. We have also installed additional 86 artificial nesting burrows in areas off golf courses so that we will be able to compare burrow occupancy on versus off the golf courses. We have also located 133 natural burrows, so that we will be able to compare reproductive success of golf course burrows with natural burrows.

The first year of our pilot study was focused on installing large numbers of artificial burrows so that we could monitor occupancy and success in years two and three of the project. Most burrows were installed after owls returned from migration (Feb - Apr), so we assumed next year would be the first year that we might observe use by burrowing owls.

We observed owls at three of our artificial burrows already this summer. These were owls that nested elsewhere (in a natural burrow), but were able to find and use the artificial burrow later in the nesting season. We did not expect owls to locate and use our burrows so quickly. However, this gave us reason to believe that our project shows great promise.

In the coming year (2001), we plan to install an additional 40 nesting burrows



Burrowing owls use old animal burrows to nest in on a municipal golf course. The older golfers say owls have nested at this site for more than thirty years.

on partner golf courses in eastern Washington. We also plan to monitor our approximately 400 burrows (natural and

artificial both on and off golf courses) weekly so that we can compare occupancy and reproductive success.

We are considering expanding our pilot study to include partner golf courses in southern Arizona (Phoenix and Tucson area) for the coming year. Although our project is just getting underway, we have generated substantial positive media coverage for our Wildlife Links project locally, regionally, and nationally.

Summary Points

- ☐ Researchers have installed 104 artificial nesting burrows on our seven partner golf courses in eastern Washington.
- ☐ Burrowing owls at three artificial burrows were observed last summer. This gives researchers hope that artificial burrows will be successful for burrowing owl nesting and reproduction.
- ☐ Researchers plan to install an additional 40 nesting burrows on participating golf courses in eastern Washington and monitor approximately 400 burrows (both natural and artificial on and off golf courses) on a weekly basis to judge whether artificial burrows enhances reproductive success.