

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

Burrowing owl populations appear to be declining throughout their range in North America, yet large-scale conservation programs to reverse declines are lacking. Burrowing owls are attracted to golf courses because they prefer open areas with short grasses for foraging. Burrowing owls rely on existing burrows in which to nest, and therefore limited burrow availability is thought to be one of the main factors contributing to population declines.

Golf courses across the country could play a role in helping to restore burrowing owl populations if nesting burrows were made available on golf courses. Our project is a pilot study that involves installing artificial nesting burrows on nine golf courses in eastern Washington state. The end result will be to provide recommendations to golf courses via a pamphlet that can be distributed to superintendents and grounds crews at golf courses throughout the breeding range of burrowing owls instructing them how and where to install nesting burrows. The pamphlet will include a list of materials needed, their cost and where to purchase the materials.

In 2000 and 2001, we installed 130 artificial nesting burrows on golf courses and 86 artificial nesting burrows off golf courses so that we can compare occupancy and reproductive success of artificial burrows on and off golf courses. Moreover, we have located over 175 natural burrows so that we will be able to compare reproductive success of golf course burrows with natural burrows.

In 2001, owls nested and successfully



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

raised young in two of our artificial burrows on golf courses. Both of these nests successfully fledged young owls. Owls from these burrows also used four other golf course burrows as alternate burrows.

In 2002, owls nested in two of the artificial burrows on golf courses, both of which successfully fledged young. In addition to the two artificial burrows used as nest burrows, single adult males used three artificial burrows periodically throughout the early breeding season and owls from the two nests used one additional artificial burrow late in the breeding season.

The increase from 2001 to 2002 in the number of burrows used by adult owls (two vs. five) demonstrates that owls are continuing to locate our artificial burrows placed on golf courses. We anticipate continued increases in the use of our artificial burrows with more being occupied by pairs and used as nest burrows in future years.

Our project has continued to receive substantial positive media coverage and public interest.

Summary Points

- Researchers have installed 130 artificial nesting burrows on our nine partner golf courses in eastern Washington.
- Burrowing owls at six artificial burrows were observed in 2001 and 2002. This gives researchers hope that artificial burrows will be successful for burrowing owl nesting and reproduction.
- Owls nested and successfully raised young in two of our artificial burrows on golf courses. Both of these nests successfully fledged young owls.
- The local ABC news affiliate (KVEW) produced and aired a 10-minute story on the project.
- The fact that owls successfully nested in two of our artificial golf course burrows demonstrates that owls can locate and raise young in artificial burrows placed on golf courses.