

Alberta Conservation Association 2013/14 Project Summary Report

Project Name: Waterfowl Nesting Habitat Enhancement

Wildlife Program Manager: Doug Manzer

Project Leader: Velma Hudson

Primary ACA staff on project:

Velma Hudson, Julie Landry-DeBoer, Andy Murphy, James Potter and Dan Sturgess

Partnerships

Alberta Fish and Game Association
Delta Waterfowl
Ducks Unlimited Canada
Syncrude Canada Ltd.
Wildlife Habitat Canada
Windsor Plywood

Key Findings

- Monitored 30 tunnels and found 83% were available for use during the 2013 breeding season. Of those available, 40% were used with a nest success rate of 90%.
- Provided seven nest tunnels to volunteers to install.
- Monitored 17 existing nest boxes, installed four boxes on Conservation Sites in our Central Region, and provided one nest box to a private landowner for installation.
- Enlisted two new conservation groups in participating in nest structure monitoring and maintenance.

Introduction

Enhancing waterfowl nesting habitat through the use of artificial nesting structures improves nesting success for mallards in the case of nest tunnels (Eskowich et al. 1998) and increases potential nesting sites for common goldeneye and bufflehead in the case of nest boxes (Corrigan 2007). We partner with Delta Waterfowl and Wildlife Habitat Canada to install and maintain waterfowl nesting tunnels in areas where secure waterfowl nesting habitat limits ground-nesting waterfowl production. Similarly, we partner with Ducks Unlimited Canada to install and maintain nest boxes on ponds in the central parkland area that lack mature aspen needed for cavity nests. Since 2009, Syncrude Canada has provided funding for both of these components of our project.

Another important aspect of this work is to involve landowners and other volunteers in the process of hands-on conservation. We engage landowners to install nest tunnels and nest boxes

on their lands and encourage these individuals to maintain and monitor these nesting structures or to allow other volunteers to do so on their properties.

Our primary objectives in 2013/14 were to secure new nesting structure locations and maintain existing locations to increase nest success of mallards, bufflehead and common goldeneye; increase awareness of habitat requirements for waterfowl species; and encourage landowners to retain wetlands and associated riparian habitat, including the wooded margins of wetlands.

Methods

In 2013/14, we installed nest tunnels in conjunction with Alberta Fish and Game Association clubs, volunteers and interested landowners in small (0.2 to 2.0 ha), semi-permanent or permanent wetlands on the water edge of the emergent vegetation zone. We continued to promote tunnel installation efforts in County of Vermilion River and County of Parkland to complement the Alternative Land Use Services pilot projects being delivered by Delta Waterfowl in these areas. We completed nest tunnel monitoring and maintenance in late winter and determined the number of nest tunnels used during the preceding breeding season and the number of these tunnels that successfully hatched ducklings. Presence of a nest bowl and down indicated nest use, whereas eggshell fragments and egg membranes indicated a successfully hatched nest. We encouraged volunteers through regular communication, including annual e-mail reminders for maintenance and monitoring, and provided them with summary results from the previous breeding season. We provided modest incentive payments to volunteer groups and individuals for tunnel maintenance once we received their monitoring reports.

We completed nest box maintenance opportunistically throughout the year, excluding the waterfowl nesting period. Nest boxes do not require annual maintenance; however, annual monitoring was encouraged. We encouraged private landowners to monitor and maintain the nest boxes on their land through annual reminders via e-mail.

We opportunistically hosted field trips and presentations for interested groups, individuals and landowners to improve their understanding of waterfowl habitat requirements. Some field trips also provided opportunities to view previously installed nest structures and install new nest structures.

Results

In 2013/14, we provided seven nest tunnels to volunteers to install, bringing our total number of installed tunnels to 280 since 2005. We engaged two new conservation groups and two additional landowners to participate in maintenance and monitoring of nearly half of these nest tunnels. We monitored 30 tunnels of which 25 were available for use during the 2013 breeding season. Of those available, 10 were used (40%) and 9 (90%) appeared to have successfully hatched ducklings.

We monitored 17 existing nest boxes, installed four boxes on Conservation Sites in our Central Region, and provided one nest box to a private landowner to install on his property. We

organized a large collection of images of waterfowl nesting structures and habitat, and made the collection available to our Communications team.

We responded to 22 requests for information on waterfowl nesting habitat and structures, including distributing more than 10 copies of the reprinted booklet *Nest Box Guide for Waterfowl, Alberta Edition* to individuals and groups in 2013/14. We also hosted one field trip and participated in a conservation celebration at Whitney Lakes Provincial Park highlighting waterfowl species and their nesting requirements to approximately 30 adults and 23 youth.

Conclusions

This project provides ideal opportunities to connect with the public, increase awareness of the importance of waterfowl habitat and develop a committed volunteer base. Project activities allow participants to do something tangible and immediate for conservation. Our partnership with Delta Waterfowl is providing us an opportunity to participate in the evolution of Alberta's pilot Alternative Land Use Services project and to cultivate partnerships with municipal and provincial government, industry and other non-government organizations.

Communications

- Hosted campers at waterfowl information table at Whitney Lakes Provincial Park, August 10, 2013.
- Provided an annual summary report to Delta Waterfowl, Ducks Unlimited Canada and Syncrude Canada Ltd.
- Published article, "Digs for Ducks," on the Waterfowl Nesting Habitat Enhancement project in the Fall/Winter 2013 issue of *Conservation Magazine*.

Literature Cited

- Corrigan, R.M. 2007. Effectiveness of nest boxes in influencing population trends for common goldeneye (*Bucephala clangula*) and bufflehead (*B. albeola*) in the Buffalo Lake Moraine. M.Sc. thesis, University of Alberta, Edmonton, Alberta, Canada. 120 pp.
- Eskowich, K., D. McKinnon, G. Brewster, and K. Belcher. 1998. Preference and use of nest baskets and nest tunnels by mallards in the parkland of Saskatchewan. *Wildlife Society Bulletin* 26: 881–885.

Photo Captions



Golden

eye in tree cavity. Photo: James Potter
[filename: Photo1_WNHE_2013-14_James Potter.jpg]



Alberta Conservation Association staff members Andy Murphy and Dan Sturgess roll up new tunnel. Photo: Velma Hudson
[filename: Photo2_WNHE_2013-14_Velma Hudson.jpg]



Nest bowl and shells. Photo: Andy Murphy
[filename: Photo3_WNHE_2013-14_Andy Murphy.jpg]