

## **Alberta Conservation Association 2007/08 Project Summary Report**

**Project name:** Nest Tunnel

**Project leader:** Velma Hudson

**Primary ACA staff on this project:** Velma Hudson, Andy Murphy and Dan Sturgess

### **Partnerships**

Alberta Fish and Game Association  
Delta Waterfowl

### **Key findings**

- 131 nest tunnels have been installed in the greater Edmonton, Red Deer and Lethbridge areas.
- 62% of nests checked have successfully hatched ducklings in 2007.
- Geese that used tunnels for roosting sites tended to damage the structure and negatively affected attendance by mallards.

### **Introduction**

In 2005, the Alberta Conservation Association (ACA) and Delta Waterfowl initiated a partnership to install 100 mallard nesting tunnels or “hen houses” in fragmented landscapes near Edmonton, Alberta. In the winter of 2005/2006, we installed approximately 65 nest structures in conjunction with local Alberta Fish and Game Association (AFGA) clubs and other interested landowners and volunteers. ACA received another 100 nest tunnels in the fall of 2006 and we are installing these in the Red Deer and Lethbridge areas. Specific objectives of this project are to increase productivity of nesting mallards in fragmented landscapes where natural nest success is low.

### **Methods**

We installed nest tunnels in cooperation with AFGA volunteers and interested landowners. Tunnels are located in semi-permanent or permanent wetlands within fragmented landscapes. We maintained the structures in late winter just before the nesting season began. Maintenance involves the replacement or enhancement of the insulation layer (outer tube) and nest bowl. Where possible, we used flax straw for the insulation layer and slough grass for the nest bowl. Nests are considered successful if egg shell fragments, or unhatched duck eggs are present.

### **Results**

One hundred and thirty-one tunnels have been installed to date. Maintenance activities have been reported for 42 tunnels with 26 showing evidence of a successful hatch. Two nest tunnels produced two separate broods in the same tunnel in 2007 (Figure 1). Additional tunnels may be maintained during late March 2008 depending on weather conditions.

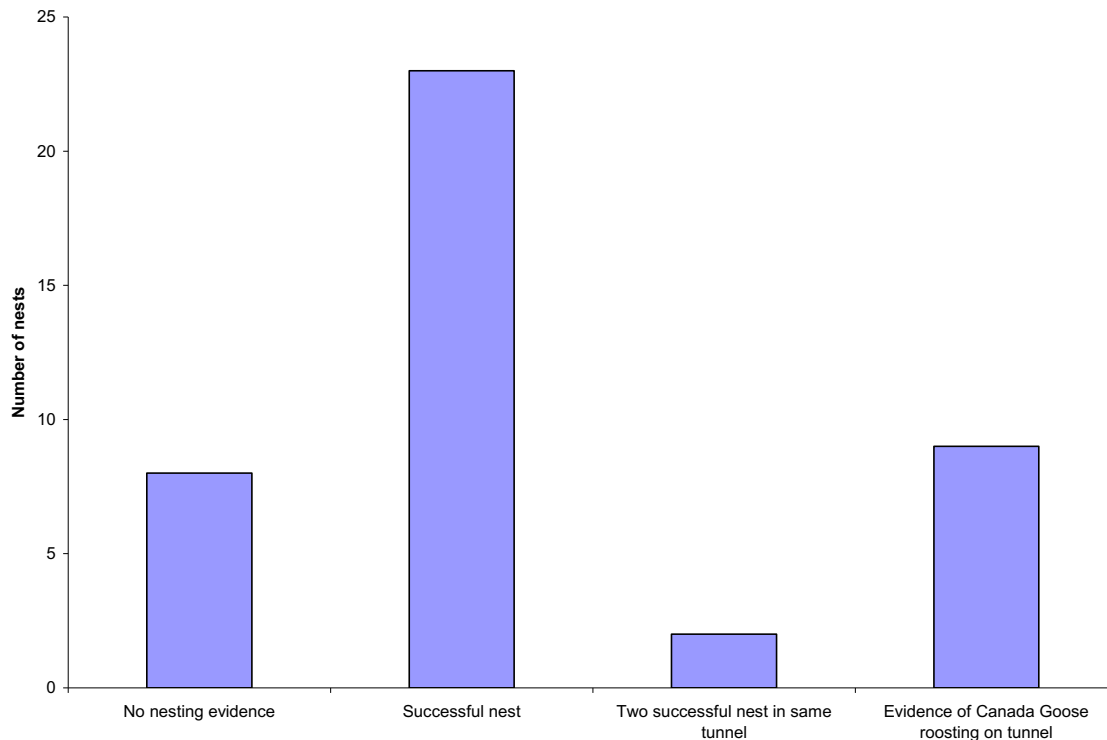


Figure 1. Utilization of nest tunnels checked in 2007.

## Conclusion

Our 62% nest tunnel utilization appears consistent with reported use in similar nest tunnel projects (Eskowich 1998; Thomson 1994). Nest tunnel structures appear to be popular roosting sites for Canada geese that can result in damage to the tunnel and avoidance of the tunnel by mallards. Tunnels used by geese will be moved to different locations in future seasons.

In 2008, emphasis will be placed on formalizing the project partnership with Delta Waterfowl, securing installation locations for uninstalled tunnels and ensuring maintenance is carried out on all nest tunnels.

## Communications

- Annual summary report will be shared with project partners.

## Literature cited

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(4): 881-885.

Thomson, B., E. Stams, and K. Schmitt. 1994. Duck nesting tunnels experiences in 1993/94. Unpublished Report, Ducks Unlimited/Alberta Prairie Care, Red Deer, Alberta. 8 pp.



Nest tunnel (left) and tunnel interior (right) showing bowl and down - evidence of nesting.  
(Photo: Andy Murphy)