

Alberta Conservation Association 2007/08 Project Summary Report

Project name: Alberta Piping Plover Habitat Enhancement Project

Project leader: Dan Sturgess

Primary ACA staff on project: Lance Engley, Stephen Hamilton, Christine Kent, Adam Lemay-Gaudet, Amanda Rezensoff, Kathryn Romanchuk, Roy Schmelzeisen, Dan Sturgess and Stephanie van Huystee

Partnerships:

Alberta Sustainable Resource Development
Alberta Tourism, Parks, and Recreation
Cooperating landowners
Department of National Defense
Ducks Unlimited Canada
Government of Canada Habitat Stewardship Program

Key findings

- Permanent fences were erected on Killarney and Handhills lakes to mitigate livestock damage to key shoreline habitat.
- Three temporary fencing projects were completed on Clark, Piper and Reflex lakes.
- One vegetation control project was completed on Little Fish Lake.
- Over 25 km of shoreline habitat have been fenced to enhance habitat since the program began in 2002. All projects have been conducted in cooperation with landholders.

Introduction

The piping plover (*Charadrius melodus*) is a nationally endangered shorebird found on sand and gravel shores of select lakes throughout east-central and southern Alberta. Reducing habitat damage and loss are key actions identified in the recovery plan to maintain a viable Alberta population (*Alberta Piping Plover Recovery Plan 2005-2010*, Alberta Piping Plover Recovery Team 2006). We address these impacts by finding sites where habitat is damaged, assessing the likelihood for future damage and enhance the habitat in cooperation with landholders. Our primary objectives in 2007 were to complete five enhancement projects and to monitor habitat condition on eight lakes where habitat improvements have been carried out in the past.

Methods

The initial phase of the program was to determine areas where nest and brood rearing habitat is damaged on plover lakes across Alberta. We assessed the shoreline for natural substrate and prioritized enhancement needs using criteria that specify type of damage, severity of disturbance, area affected, importance of habitat for the provincial population, likelihood of continued

damage, mitigation options available and ability to affect a positive change within the disturbed area. If the area is designated federally as “critical habitat”, it is considered a high priority. We mark damaged locations with a GPS and take photos to track changes in habitat over time.

Once target areas are identified, we visited landowners to negotiate a mutually agreed upon solution to mitigate the damage and halt negative disturbance in the future. During negotiations we encouraged landowners to contribute to the completion of the corrective action, but generally improvements are at low or no cost to the landholder.

When a habitat enhancement project begins we complete a habitat assessment sheet consisting of habitat ratings and photo stations. After we complete habitat enhancement projects, we revisit these sites in future years to record changes in habitat over time.

Results

In 2007, we surveyed habitat on 23 lakes during the piping plover breeding season. We completed two permanent cattle fencing projects on Killarney Lake and Handhills Lake, one temporary cattle/predator fencing project on each of Piper and Clark lakes and one temporary fencing project on Reflex Lake. These projects protected over 9 km of shoreline habitat (Figure 1). We also repeated an annual vegetation reduction project through grazing on Little Fish Lake.

We conducted habitat assessments at 17 sites on eight lakes and contacted at least 25 landowners throughout the field season. Most sites are now showing signs of improvement in habitat quality since enhancements were completed.

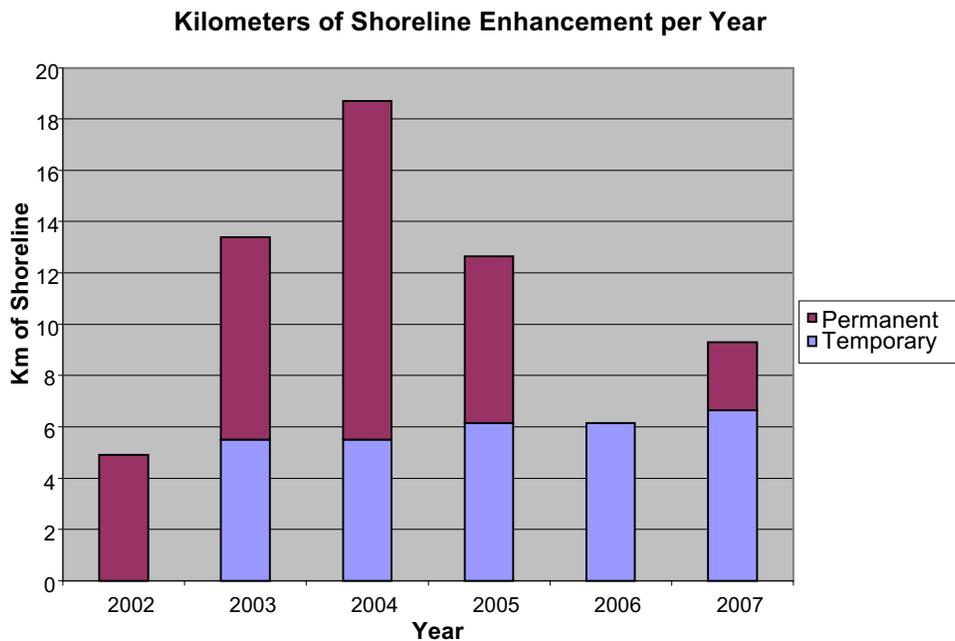


Figure 1. Kilometers of shoreline enhanced through temporary and permanent projects from 2002 - 2007.

Conclusion

We continue to see a decline in human influenced disturbance to piping plover breeding habitat as a result of the intensive habitat restoration over the past five years. The piping plover population in Alberta has also been increasing steadily since large scale recovery efforts began in 2002.

Communications

- Annual piping plover newsletter was distributed to landowners.
- Presented piping plover project to the ENCS 464 class at the University of Alberta.
- Poster presentation at the Alberta Chapter of the Wildlife Society conference on methods to better quantify piping plover habitat site assessments.
- Presented the 2007 habitat enhancement update at the Alberta Piping Plover Recovery Team meeting.

Literature cited

Alberta Piping Plover Recovery Team. 2006. Alberta Piping Plover recovery plan, 2005-2010. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Recovery Plan No. 10, Edmonton, Alberta. 27 pp.



Landowners building a cattle fence on Little Fish Lake. Left to right: Ed Gammie, Treacy Vogstad. (Photo: Dan Sturgess)



Sign at Handhills Lake Rodeo grounds. (Photo: Dan Sturgess)



Completed cattle fence at McLaren Lake. (Photo: Dan Sturgess)