

Alberta Conservation Association 2013/14 Project Summary Report

Project Name: MULTISAR

Wildlife Program Manager: Doug Manzer

Project Leader: Brad Downey

Primary ACA staff on project:

Brad Downey, Paul Jones, Julie Landry-DeBoer, Megan Jensen, Kris Kendell, Lee Moltzahn, Amanda Rezansoff, Dan Sturgess, Mike Verhage and Deanna White

Partnerships

Alberta Environment and Sustainable Resource Development
AltaLink
Canadian Natural Resources Limited
Environment Canada – Environmental Damages Fund
Fortis Alberta
Government of Canada Habitat Stewardship Program for Species at Risk
Landholders
Prairie Conservation Forum

Key Findings

- We hand-harvested 200 pounds of silver sagebrush seed and broadcasted it onto our native grassland restoration sites near Manyberries, Alberta.
- We collaborated with ranchers and completed habitat plans and reassessments on roughly 58,000 acres.
- We planted 2,900 silver sagebrush and wild vetch plugs on native grass restoration sites within greater sage-grouse range.
- We are controlling an invasive weed species, Canada thistle, at a northern leopard frog stewardship site to improve feeding, basking and movement opportunities for the species.

Introduction

MULTISAR is a program focused on multi-species conservation at the landscape level that promotes stewardship through voluntary participation of landholders on both Crown and private lands. The program is a collaborative effort among landholders, Alberta Conservation Association, Alberta Environment and Sustainable Resource Development, and Prairie Conservation Forum. The primary goal of MULTISAR is to implement collaborative strategies to manage multiple species on a defined working landscape. These strategies are compiled into landholder-specific Habitat Conservation Strategies (HCS), leading to the implementation of habitat enhancement activities that benefit both the farm or ranch operation and wildlife. We

chose the Milk River Watershed (6,776 km²) and surrounding areas as the MULTISAR program area because it supports the highest number of species at risk of any definable landscape in Alberta.

Methods

We completed multi-species point count surveys on three ranches to measure occupancy of birds (Landry-DeBoer and Downey 2010). We also surveyed all riparian areas on these ranches by walking along the edge of the waterbodies listening and observing for amphibians (Kendell 2002). In early August, we surveyed short-horned lizards at sites that were predicted to be highly suitable based on habitat models (James 2002). In early October, we surveyed coulee slopes to identify new snake hibernacula (dens). We also completed detailed range health assessments (Adams et al. 2005) on these ranches. We incorporated the results of the wildlife inventories and range assessments into landholder-specific strategies (HCS) and identified potential habitat enhancements for future work.

We monitored 30 enhancements completed in previous years, and we evaluated the success of strategies applied to three ranches by measuring changes in habitat and in wildlife use and diversity at half the sites previously visited in 2007/08. These data will help determine if enhancements and ranch-specific actions (HCS) implemented since 2007/08 are having the desired effect on wildlife habitat (Jones and Landry-DeBoer 2012).

A large part of our effort goes into communication activities; these included presentations at Writing-on-Stone Provincial Park, presentations to funding agencies, and participation in several conferences and workshops, including collaborating with the Canadian Cattlemen's Association on the Environmental Booth at the Calgary Stampede.

Results

In 2013/14, we completed detailed wildlife, range and riparian surveys on one ranch (8,000 acres) and developed an HCS. We identified 75 different species using the ranch, including 22 species considered to be *At Risk*. We also conducted 98 detailed range transects, 104 range health assessments and three riparian assessments on the ranch.

We completed 13 habitat enhancements in 2013/14, including planting 2,900 silver sagebrush and wild vetch plugs split between two sites. We installed fence reflectors on four miles of fence line that surround an active greater sage-grouse lek. We installed four hawk nest poles to attract ferruginous hawks into the area to control ground squirrels and to provide additional nesting sites for this endangered hawk. We also fenced off one tree with an active ferruginous hawk nest. We dismantled and removed two old buildings that were providing habitat for predators, which we believe are negatively impacting greater sage-grouse. We installed 800 m of new wildlife-friendly fence line around a restoration site, and one landowner installed smooth wire on the bottom of their fence for 12 km. We also started reclaiming 10 acres of a crested wheatgrass field back to native grass. Projects that we continued to implement include partnering with Dupont on two 12-acre test plots for their new broadleaf herbicide product called Rejuvra®. We also controlled Canada thistle on 480 acres of reseeded native grass and one acre around a

northern leopard frog pond, which was seeded with native grass. This brings to 86 the total number of direct on-the-ground enhancements completed by MULTISAR participants since 2005 (Figure 1).

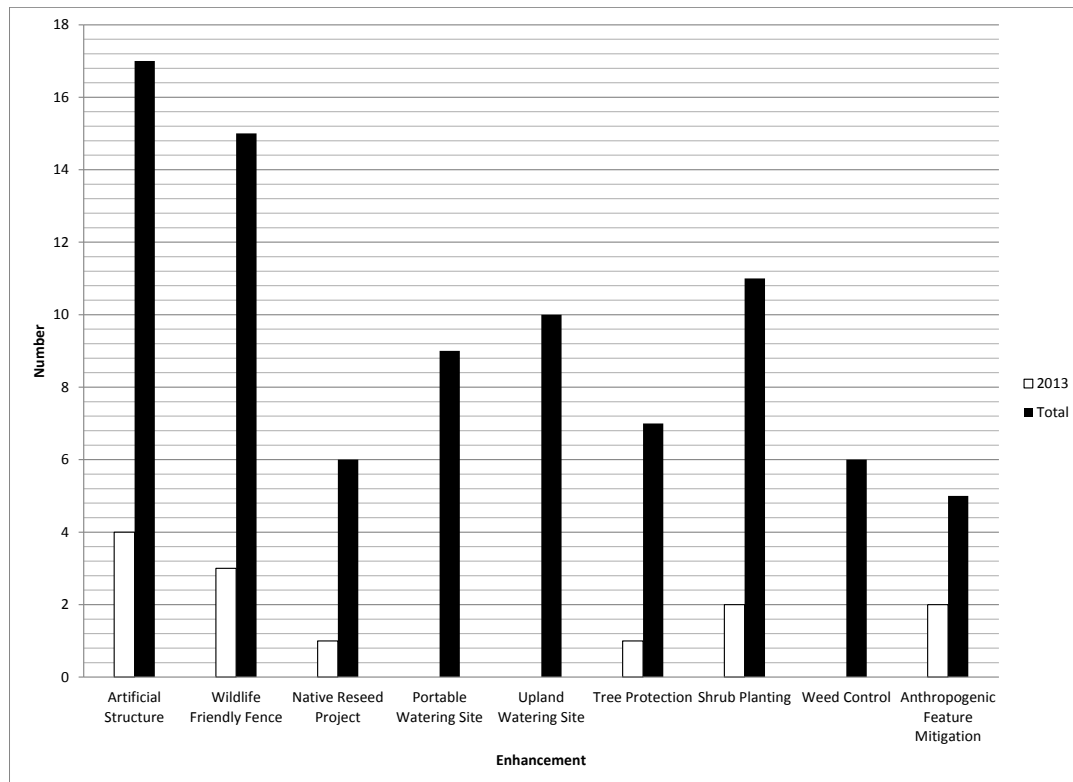


Figure 1. The number and type of habitat enhancements implemented by MULTISAR in 2013 and since 2005.

We also reassessed three ranches previously surveyed in 2007/08 totaling approximately 50,000 acres. We completed 226 range health assessments and 23 tame pasture health assessments, and we entered 2,273 wildlife observations into the provincial Fisheries and Wildlife Management Information System database. All three properties increased in range health, with the largest property (41,000 acres) showing an increase in wildlife diversity and the number of species on the property over the past five years. There was no significant change in wildlife diversity for the second property, but there was a significant increase in the number of species on the property. There were significant decreases in wildlife diversity and the number of species present on the third property since the last inventory five years prior. This decrease could be due to weather conditions, observer experience, or simply fluctuations among years. This property is one of the furthest west that we monitor; it will be interesting to see if the same trend continues for other properties on the western side of the Milk River drainage.

We monitored 15 enhancements in 2013/14. Ferruginous hawks used four of the seven nest platforms we installed. Line transects were completed at four sites to measure silver sagebrush and thorny buffaloberry shrub growth. Very few silver sagebrush were observed the year following seeding. Further monitoring will occur in the future, and changes to seeding will occur in 2014/15. The four native grass reseed projects continue to evolve with native grass species increasing in number as well as wildlife species richness increasing on all sites. Important wildlife sightings on the native grass restoration sites include 170 sharp-tailed grouse, Sprague's pipits, chestnut-collared longspurs, greater sage-grouse and pronghorn. Two watering sites continue to attract cattle away from important northern leopard frog breeding habitat, and the single bio-control site used to control leafy spurge along a riparian zone contained an active population of insects.

Conclusions

MULTISAR is a collaborative effort among landowners, conservation organizations, government and industry. The program is succeeding through cooperative teamwork, with all partners working towards a common goal of habitat and species conservation on farms and ranches. Success has not only been seen through direct improvements but also through awareness of species at risk in landholders' day-to-day activities on their lands. Landholders view the MULTISAR program as non-threatening, and new relationships are being formed because of this awareness and through promotion of the program in the local community.

Communications

ACA

- Delivered two presentations at Writing-on-Stone Provincial Park, Lee Moltzahn and Julie Landry-DeBoer, July and August 2013.
- Delivered presentation to World Wildlife Fund in Bozeman, Montana, Brad Downey and Francois Blouin, August 26, 2013.
- Assisted at the Women's Grazing School, Julie Landry-DeBoer, July 2013.
- Delivered presentation and tour about MULTISAR native grass restoration project with Scott Milligan and other Land Use Framework personnel, Brad Downey and Julie Landry-DeBoer, August 21, 2013.
- Delivered presentation and tour of native grassland restoration sites with Michelle Duval of Environmental Damages Fund, Brad Downey, September 10, 2013.
- Interviewed by *Let's Go Outdoors* on Native Prairie Restoration, Brad Downey, September 12, 2013.
- Prepared internal MULTISAR Evaluation Report, Julie Landry-DeBoer and Paul Jones, March 2014.
- MULTISAR collaborated with the Alberta Beef Producers and Canadian Cattlemen's Association, as well as other environmental groups, on an environment booth at the Calgary Stampede, Brad Downey and Julie Landry-DeBoer, July 5 – 14, 2013.
- Published (June 2013 issue) manuscript in *Rangelands* entitled "Restoring Dry-Mixed Native Grassland in Southeastern Alberta, Canada," Brad Downey and Paul Jones.

- MULTISAR display set up at the Milk River Watershed Council Canada Annual Meeting, Julie Landry-DeBoer and Brad Downey, April 2013.
- Developed brochure: *Amphibians on My Land—Habitat Stewardship in Agricultural Landscapes*.

Partners

- Published *MULTISAR: A Multi-Species Conservation Strategy for Species at Risk in the Grassland Natural Region of Alberta 2013/14*, MULTISAR, March 2014.
- Published the *Grassland Gazette* newsletter, Winter 2013/14 Issue.
- Maintained and updated MULTISAR Facebook page and Twitter account, Kristen Rumbolt.
- Delivered presentations to Alberta Beef Producers, Francois Blouin, August and December 2013.
- Maintained and updated the MULTISAR website: www.multisar.ca.

Literature Cited

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- James, J.D. 2002. A survey of short-horned lizard (*Phrynosoma hernandesi hernandesi*) populations in Alberta. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 29, Edmonton, Alberta, Canada. 25 pp.
- Jones, P., and J. Landry-DeBoer. 2012. MULTISAR's monitoring, enhancement, and evaluation program. Alberta Conservation Association Internal Report, Lethbridge, Alberta, Canada.
- Kendell, K. 2002. Survey protocol for the northern leopard frog. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 43, Edmonton, Alberta, Canada. 30 pp.
- Landry-DeBoer, J.P., and B.A. Downey. 2010. Habitat Conservation Strategies. Pages 12 – 23. In: F. Blouin, B.L. Downey, B.A. Downey, S.L. Frank, D.J. Jarina, P.F. Jones, J.P. Landry-DeBoer, and K.S. Rumbolt. *MULTISAR: A Multi-Species Conservation Strategy for Species at Risk 2009 – 2010 Report*. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 135, Edmonton, Alberta, Canada. 71 pp.

Photo Captions



Alberta Conservation Association staff member Brad Downey and his son Colter attaching twigs to a ferruginous hawk nesting platform. Photo: Nikki Heck
[filename: Photo1_MULTISAR_2013-14_Nikki Heck.jpg]



Alberta Conservation Association staff member Julie Landry-DeBoer collecting silver sagebrush seed. Photo: Brad Downey
[filename: Photo2_MULTISAR_2013-14_Brad Downey.jpg]



Alberta Conservation Association staff members Brad Downey and Lee Moltzahn on second-year native grass restoration site. Photo: Julie Landry-DeBoer
[filename: Photo3_MULTISAR_2013-14_Julie Landry-DeBoer.jpg]



Kris Kendell undertaking mechanical control of Canada thistle (*Cirsium arvense*) at Jenner Springs northern leopard frog stewardship site to prevent seed production and improve effectiveness of future herbicide application. Photo: Amanda Rezansoff
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