

Alberta Conservation Association (ACA)

Date: 2014-2015

Project Name: MULTISAR

Wildlife Program Manager: Doug Manzer

Project Leader: Brad Downey

Primary ACA staff on project:

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

Partnerships

- Alberta Environment and Sustainable Resource Development
- Canadian Natural Resources Limited
- Government of Canada
- Landholders
- Prairie Conservation Forum

Key Findings

- Confirmed Alberta's first yellow-bellied racer hibernacula.
- Collaborated with ranchers and completed Habitat Conservation Strategies and reassessments on roughly 87,000 acres.
- Collaborated with the Canadian Cattlemen's Association at the Calgary Stampede; over 100,000 people toured our display.
- Planted 4,000 silver sagebrush, golden bean and wild vetch plugs on native grass restoration sites in greater sage-grouse range.

Introduction

MULTISAR focuses 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 unique collaborative effort among landholders, Alberta Conservation Association, Alberta Environment and Sustainable Resource Development, and Prairie Conservation Forum. Our primary goal is to collaboratively develop plans to benefit multiple species, which are then implemented through 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 two ranches to measure the 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 habitat based on habitat models and sites that had historical occurrences (James 2002). In early October, we surveyed coulee slopes to identify new snake hibernacula (dens) (Alberta Sustainable Resource Development 2010). 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 (Habitat Conservation Strategies; HCS) and identified potential habitat enhancements for future work.

We monitored 58 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 2008. These data will help determine if enhancements and ranch-specific actions (HCS) implemented since 2008 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 and tours to funding agencies and partners, and participation in several conferences and workshops, including collaborating with the Canadian Cattlemen's Association on the Environmental Booth at the Calgary Stampede (over 100,000 people toured our display) and touring a number of groups around our native grass restoration projects.

Results

In 2014, we completed detailed wildlife, range and riparian surveys on two ranches (~42,000 acres) and developed their associated HCS. We identified 109 different species on the largest property (~41,500 acres), including 13 that are considered *Endangered/At Risk or Threatened/May Be At Risk* species. We also conducted 231 detailed range transects, 410 range health assessments and 10 riparian assessments on the two ranches.

We completed 21 habitat enhancements in 2014, including planting 4,000 silver sagebrush, wild vetch and golden bean plugs split across two sites. We installed fence reflectors on 800 m of fence line that runs next to an active sharp-tailed grouse lek. We removed two old buildings that were providing habitat for predators, which can negatively impact greater sage-grouse. We installed 400 m of new wildlife-friendly fence around one restoration site and 1,200 m around a second restoration site. One landowner also installed smooth wire on the bottom of their fence for 9 km. We started our test plots using Simplicity® to control Japanese and downy brome grass at two sites. We developed three upland water sites to attract cattle out of riparian zones. We seeded patches of wild-harvested needle-and-thread grass and silver sagebrush on test plots. We continued work on 1,300 acres of native prairie restoration, which involved controlling Canada thistle and identifying brome patches to be sprayed. We took steps to eradicate Canada thistle at a northern leopard frog stewardship site near Jenner, Alberta, through hand-pulling/clipping plants, followed by chemical treatment with Milestone®. This work brings the total number of

direct on-the-ground enhancements completed by MULTISAR participants since 2005 to 109 (Figure 1).

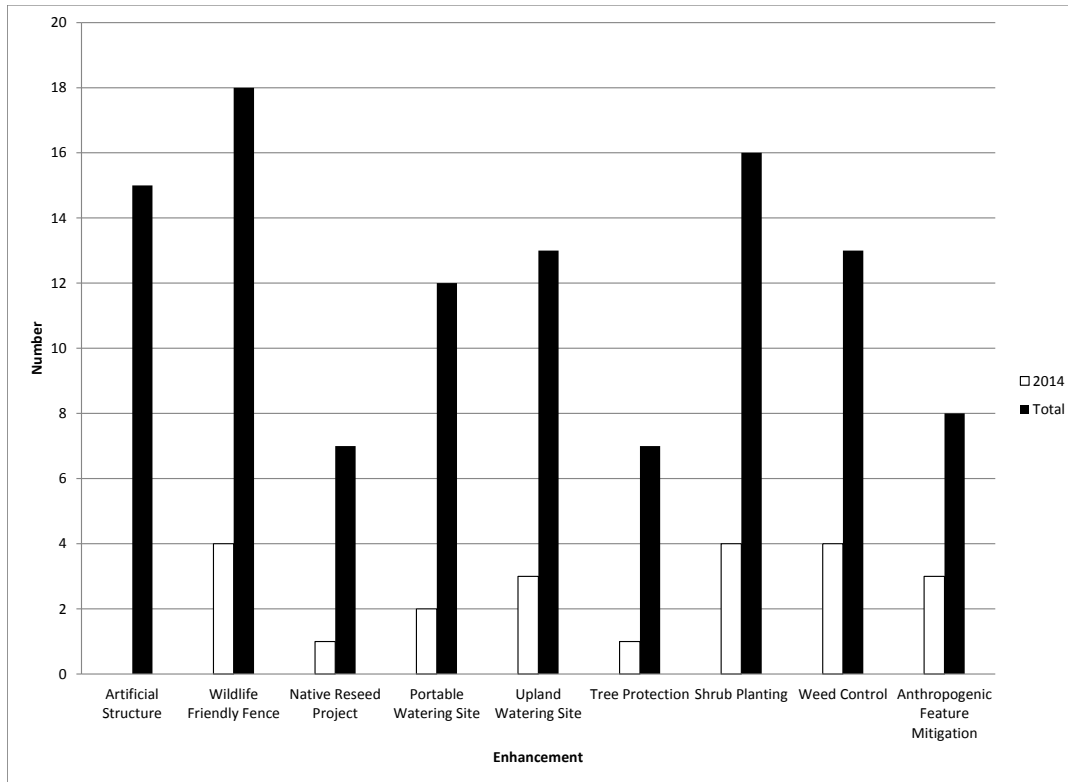


Figure 1. The number and type of habitat enhancements implemented by MULTISAR in 2014 and since 2005.

As part of our ongoing monitoring, we reassessed three ranches previously surveyed in 2008 totaling 44,987 acres. We completed 136 range health assessments, 21 tamed pasture health assessments, and 20 riparian assessments, and entered 1,686 wildlife observations into the Alberta Fisheries and Wildlife Management Information System database. Range health increased on all three properties, with the largest property (40,745 acres) showing a significant increase in wildlife diversity and species richness over the past five years.

We monitored 58 enhancements in 2014, which showed that ferruginous hawks were using 7 of the 11 nest platforms we installed. We completed 10 line transects to measure silver sagebrush and thorny buffaloberry shrub growth. Most of these were new monitoring sites established this fall. Silver sagebrush seemed to be the only plugs that survived, because wild vetch plugs were not found a year later. Further monitoring will occur in 2015 because additional wild vetch plugs and golden bean plugs were planted in fall 2014. We monitored six native grass reseed projects; these projects continue to evolve, with native grass species increasing in number as well as

wildlife species richness increasing on all sites. Small patches of brome have been noted on the sites, and a chemical application will be initiated in the spring to control and eventually eliminate the brome. We also monitored 19 watering sites and 2 bio-control sites to control leafy spurge and Dalmatian toad flax along riparian zones, and we photo-documented where an abandoned house and corral system were removed.

Conclusions

MULTISAR is a collaborative effort among landowners, conservation organizations, government and industry. The program is succeeding through co-operative teamwork with all partners working toward a common goal of habitat and species conservation on farms and ranches. Success has occurred not only through direct improvements that benefit wildlife habitat and farm or ranch operations, but also through awareness of species at risk in landholders' day-to-day activities on their land. 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

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- Assisted at the Women's Grazing School, Julie Landry-DeBoer, July 2014.
- Presented/toured the Land Management group around the Silver Sage Conservation Site in relation to the native grass restoration projects, June 2014.
- Presented/toured Alberta Public Lands staff around the Silver Sage Conservation Site in relation to the native grass restoration projects, Brad Downey, May 2014.
- Presented/toured Prairie Conservation Forum staff around the Silver Sage Conservation Site in relation to the native grass restoration projects, Brad Downey, September 2014.
- Presented at the Prairie Conservation Forum meeting on MULTISAR and ACA in general, Brad Downey, September 2014.
- Presented to the County of Forty Mile on MULTISAR, Brad Downey, July 2014.
- Presented at The Nature Conservancy workshop at the Matador Ranch in Montana on habitat enhancements for species at risk, Brad Downey, June 2014.
- Presented to the Red Creek Stewardship group on ferruginous hawks, northern leopard frogs and types of habitat enhancements that could be implemented for them, Brad Downey, August 2014.
- Presented at the Native Prairie Restoration and Reclamation workshop in Saskatoon, Saskatchewan, on our native grass restoration projects on the Silver Sage Conservation Site, Brad Downey, January 2015.
- Presented at the Native Prairie Restoration and Reclamation workshop in Saskatoon, Saskatchewan, on wildlife-friendly fencing, Paul Jones, January 2015.
- Published article in ACA's *Conservation Magazine*, "Silver Rush," Brad Downey, Fall/Winter 2014.
- Presented at Lethbridge College lab on bat monitoring, Julie Landry-DeBoer, November 2014.

- Ran the bird identification portion of the Amazing Race Contest at Youth Range Day in Writing-on-Stone, Julie Landry-DeBoer, July 2014.
- Ran the birding portion of the Amazing Race Contest for the younger kids for the Summer Education Program at Jennie Emery Elementary School, August 2014.
- Presented at the Wildlife in the Wind Speaker Series on bat monitoring, Julie Landry-DeBoer, February 2015.
- Presented to the Foothills Fescue Forum on our native grass restoration projects, Lee Moltzahn, November 2014.
- Produced internal MULTISAR evaluation report, Julie Landry-DeBoer and Paul Jones, March 2015.
- 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, Megan Jensen and Julie Landry-DeBoer, July 2014.
- Set up MULTISAR display at the Milk River Watershed Council Canada Annual Meeting, Julie Landry-DeBoer and Lee Moltzahn, April 2014.

Partners

- Published *MULTISAR: A Multi-Species Conservation Strategy for Species at Risk in the Grassland Natural Region of Alberta 2014/15*, MULTISAR, March 2015.
- Published *Grassland Gazette* newsletter, Winter 2014/15 issue.
- Maintained and updated MULTISAR Facebook page and Twitter account, Kristen Rumbolt.

Literature Cited

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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.

Photos



Alberta Conservation Association staff members Lee Moltzahn and Deanna White conducting range health assessments. Photo: Julie Landry-DeBoer



Alberta Conservation Association staff member Brad Downey surveying for northern leopard frogs. Photo: Julie Landry-DeBoer



Alberta Conservation Association staff member Julie Landry-DeBoer assessing poplar and willow regrowth on a riparian enhancement site along the Milk River. Photo: Brad Downey