Alberta Conservation Association 2017/18 Project Summary Report

Project Name: MULTISAR – Milk River

Wildlife Program Manager: Doug Manzer

Project Leader: Brad Downey

Primary ACA staff on project: Brad Downey, Graydon Garner, Paul Jones, Julie Landry-DeBoer, Emma LaRocque, Lee Moltzahn, and Brook Skagen

Partnerships

Alberta Environment and Parks Government of Canada Landholders Prairie Conservation Forum

Key Findings

- Collaborated with ranchers and completed Habitat Conservation Strategies and reassessments on roughly 44,500 acres.
- We developed enhancements on six properties ranging from off-site cattle watering units to native grass restoration and hawk-pole installations.
- We sourced signage to promote reasonable public access on several collaborating ranch properties.
- We developed a manuscript that discusses the long-term relationship based success of MULTISAR for submission to *Conservation Biology*.

Introduction

We focus 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 Parks, and Prairie Conservation Forum. Our primary goal is to collaboratively develop plans to benefit multiple species; these plans are then implemented through habitat enhancement activities that benefit both the farm or ranch operation and wildlife. We initiated this effort in the Milk River Watershed (6,776 square kilometres) in 2002 because it supports the highest number of species at risk of any definable landscape in Alberta.

Methods

We completed point count surveys on three ranches to measure the occupancy of birds (Landry-DeBoer and Downey 2010). We surveyed riparian areas on these ranches by walking along the edge of the waterbodies listening and observing for amphibians (Kendell 2002). We also setup bat meters and song meters in key areas to identify bats and record birds and amphibians that may have been missed during point counts.

In early August, we surveyed short-horned lizards at sites that were predicted to be highly suitable habitat based on habitat models and 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 range health assessments (Adams et al. 2005), and incorporated these results along with those from the wildlife inventories into landholder-specific Habitat Conservation Strategies (HCS). These plans map out objectives going forward along with potential habitat enhancements to guide future work. We monitored 35 enhancements on multiple ranches completed in previous years, and did an in-depth assessment of the response of wildlife and habitat on two ranches previously visited in 2011 and 2012. These data will help determine if enhancements and ranch-specific actions implemented since 2011/12 are having the desired effect on wildlife habitat (Jones and Landry-DeBoer 2012). A large part of our effort goes into communication activities. These activities included presentations and tours to funding agencies and partners, and participation in several conferences and workshops.

Results

In 2017, we completed detailed wildlife, range, and riparian surveys on one new ranch (2,500 acres) and developed the associated Habitat Conservation Strategy. We identified 71 different species, including 19 that are considered *Endangered*, *Threatened*, or *Species of Special Concern*. We also conducted 32 detailed range transects, 33 range health assessments, and four tamed pasture assessments on the ranch.

We completed 14 new habitat enhancements on six ranches in 2017 and continued work on another three enhancements initiated in previous years. We continued the restoration of 1,300 acres back to native grass through spraying for brome, Canada thistle and other weeds to help ensure the seed bed is clean. We seeded 160 acres back to native grass in 2017, and seeded 90 acres of previously broken ground into wheat to help control weeds and prepare this land for seeding to native grass in the spring of 2018 (if conditions are favourable). We continued collaborating with a producer to remove 34 acres of crested wheatgrass and plant a simple fourspecies native mix. We planted needle and thread plugs on restoration sites on the Silver Sage Conservation Site. We installed four kilometres of new wildlife-friendly fencing for pronghorn. We wrapped 30+ cottonwood trees to protect them from beavers. We purchased two portable watering units to be used around dugouts and wetlands to improve habitat for amphibians and waterfowl. We assisted with biocontrol for invasive weeds on one property. We also installed six ferruginous hawk platforms in locations situated to assist with Richardson's ground squirrel control. These activities bring the total number of direct on the ground enhancements shared among many landowner participants to 154 since 2005 (Figure 1).



Figure 1. The number and type of habitat enhancements implemented by MULTISAR in 2017 and since 2005.

As part of our ongoing monitoring, we reassessed two ranches previously surveyed in 2011 and 2012 totalling 42,000 acres. We completed 120 range health assessments, eight tame pasture health assessments, and six riparian assessments. In total, we observed 1,318 wildlife observations. Overall grassland bird numbers have decreased on these two ranches while ferruginous hawk numbers have increase. Surveys in 2017 during a dry year provided insight into changes that occur on the landscape relative to the original surveys that were completed during a wet period. Common species like boreal chorus frog were absent from sites that usually contained several hundreds of them.

We monitored 35 enhancements in 2017, including ferruginous hawk poles, native grass restoration projects, upland watering systems, portable watering systems, shrub/forb plantings, and weed control plots. Seven of the ten ferruginous hawk poles monitored this year were active. Our native grass restoration sites had grazing occurring on them in 2017 so we will continue to monitor them in 2018. Several grassland birds, sharp-tailed grouse, and pronghorn are using these restored sites. Diversity of grassland birds has changed over the years in the native grassland restoration projects to those that prefer taller vegetation with higher litter amounts (i.e., Sprague's pipit, Baird's sparrow) (Figure 2).



Figure 2: Changes on native grass restoration sites in grassland bird abundance over time.

Upland and portable watering sites continue to be maintained and are providing alternative watering sites for cattle, allowing improved distribution and reducing impacts on riparian areas that support northern leopard frogs, loggerhead shrike, pheasants, white-tailed deer, and mule deer.

Conclusions

Long-term relationships built on mutual respect and trust between conservation groups and landowners has allowed us to collaborate with producers and implement enhancements on close to 400,000 acres through detailed planning. These improvements not only benefit species at risk, but can also provide benefits to upland game birds and ungulates and maintain the recreational opportunities that these large ranches provide. 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

- Assisted at the Women's Grazing School, Julie Landry-DeBoer, July 2017.
- Presented at the Medicine Hat College on native grass restoration and species at risk, Brad Downey, November 8, 2017.
- Presented at the Mixed Grass Forum in Medicine Hat about our native grass restoration project. Brad Downey, April 2017
- Participated in Youth Range Day at Gold Spring Campground; worked with youth on range health assessments and plant identification, Lee Moltzahn, July 2017.
- Participated in Youth Range Days at Gold Spring Campground: Leopard frog, snake, and habitat enhancement presentation, Julie Landry-DeBoer and Adam Moltzahn, July 2017.
- Set up MULTISAR display at the Milk River Watershed Council Canada Annual Meeting, Julie Landry-DeBoer, Brad Downey, and Lee Moltzahn, May 2017.
- Hosted bat lecture and walk around Elizabeth Hall Wetland for Lethbridge College, Julie Landry-DeBoer, September 2017.
- Presented at Jenny Emery Elementary School's summer program, Julie Landry-DeBoer, August 2017.
- Presented to the Medicine Hat College about Grassland Restoration at Silver Sage Conservation Site, Brad Downey, November 2017.
- Toured the Milk River Watershed group around Silver Sage Conservation Site discussing the native grass restoration projects, Lee Moltzahn, October 2017.
- Hosted MULTISAR booth at the Calgary Stampede in partnership with Canadian Cattlemen's Association, Brad Downey, Graydon Garner, Julie Landry-Deboer, Emma LaRocque, Brook Skagen, and Colin Starkevich, July 2017.

Partners

- Published MULTISAR: A Multi-Species Conservation Strategy for Species at Risk in the Grassland Natural Region of Alberta 2017/18, MULTISAR, March 2018.
- Published Grassland Gazette newsletter, Winter 2017/18 issue.
- Published Prairie Bats Beneficial Management Practices brochure
- Maintained and updated MULTISAR Facebook page and Twitter account, Kristen Rumbolt.

Literature Cited

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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



Julie Landry-DeBoer conducting leopard frog surveys with help from landholder's dog. Photo: Brook Skagen



Alberta Conservation Association seasonal staff Graydon Garner setting up range transect. Photo: Lee Moltzahn.



EQUS setting up ferruginous hawk pole. Photo: Brad Downey