Alberta Conservation Association
2019/20 Project Summary Report

Project Name: MULTISAR – Milk River

Wildlife Program Manager: Doug Manzer

Project Leader: Brad Downey

Primary ACA staff on project: Kelsey Cartwright, Brad Downey, Ryan James, Paul Jones, Daniel Knop, Julie Landry-DeBoer, and Lee Moltzahn

Partnerships

Alberta Environment and Parks
EQUS
Government of Canada
Landholders
Milk River Watershed Council Canada
Prairie Conservation Forum

Key Findings

- We collaborated with ranchers and completed Habitat Conservation Strategies reassessments on 54,790 acres.
- We implemented seven enhancements ranging from wildlife friendly fencing and upland watering sites to hawk poles.
- We published a manuscript in the journal *Rangelands,* titled "Listen, Learn, Liaise: Taking the Species out of Species-At-Risk Through Engagement."

Abstract

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, ACA, 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 ranch operation and wildlife. We reassessed four ranches previously surveyed in 2013 and 2014, totalling 54,790 acres. We completed 176 range health assessments, 19 tame pasture health assessments, and five riparian assessments. In total, we had 2,605 wildlife observations. We saw a maintenance or increase in range health, even after two years of dry conditions, with the average health scores increasing by as much as 13%. We also saw the number of unhealthy range sites identified during baseline assessments decrease by as much as 14%. In 2019 we completed seven new habitat enhancements on four ranches and continued work on one other enhancement initiated in previous years. These enhancements include wildlife-friendly fencing, hawk pole installation, portable fencing, upland watering sites, and continued work on our reseeding projects. These improvements not only benefit species at risk habitat but can also provide benefits to upland game birds and ungulates habitat that many hunters and anglers have come to enjoy.

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 (ACA), 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 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.

A Habitat Conservation Strategy (HCS) is a five-year extendable, voluntary plan that identifies beneficial management practices and habitat improvement recommendations to encourage sustainable ranching operations. First, an initial Letter of Intent is signed that outlines the roles of both ACA and the landowner, and clarifies that the landowner allows reasonable public access for recreation on their ranch. We then develop these plans after first completing in-depth habitat, wildlife, and fish surveys, along with vegetation inventories, and range and riparian health assessments. We evaluate these results with the needs of species at risk and balance the plan with the needs and objectives of the ranching operation. Mutually agreed-upon solutions are adopted and integrated into the strategy, and with priorities listed along with a monitoring plan to assess progress. After signing a five-year stewardship agreement, we assist the producer with implementing the agreed to enhancements and grazing strategies. Progress is re-assessed every five years, with adjustments incorporated into a living management plan for the operation. A landowner questionnaire is also completed to identify what is or isn't working from their perspective, and to document landowner perspectives across years. This questionnaire helps us re-adjust the plan going forward and can show change over time with landowner beliefs on species at risk. Another five-year stewardship agreement may be signed for continued implementation of the strategy.

Methods

We completed point count surveys on 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 set up 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 50 enhancements on multiple ranches completed in previous years, and did an in-depth assessment of the response of wildlife and habitat on three ranches previously visited in 2013 and 2014. These data will help determine if enhancements and ranch-specific actions implemented since 2013/14 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 2019, we completed seven new habitat enhancements on four ranches and continued work on one other enhancement initiated in a previous year. We continued the restoration of 1,300 acres back to native grass through spraying for kochia, Canada thistle, and other weeds. We installed three miles of new wildlife-friendly fencing for pronghorn to improve movement and to prevent cattle from accessing riparian areas. We purchased a portable fencing unit to be used around dugouts, coulees and wetlands to improve habitat for amphibians, game birds and waterfowl. We installed a watering trough 60 m away from a dugout/wetland to provide an alternative watering source to improve cattle distribution and reduce pressure on the waterbody. We installed three hawk poles to assist with the recovery of the *Endangered* ferruginous hawk and to help the producer control Richardson's ground squirrels. These activities bring the total number of direct, on-the-ground enhancements shared among many landowner participants to 172 since 2005 (Figure 1).

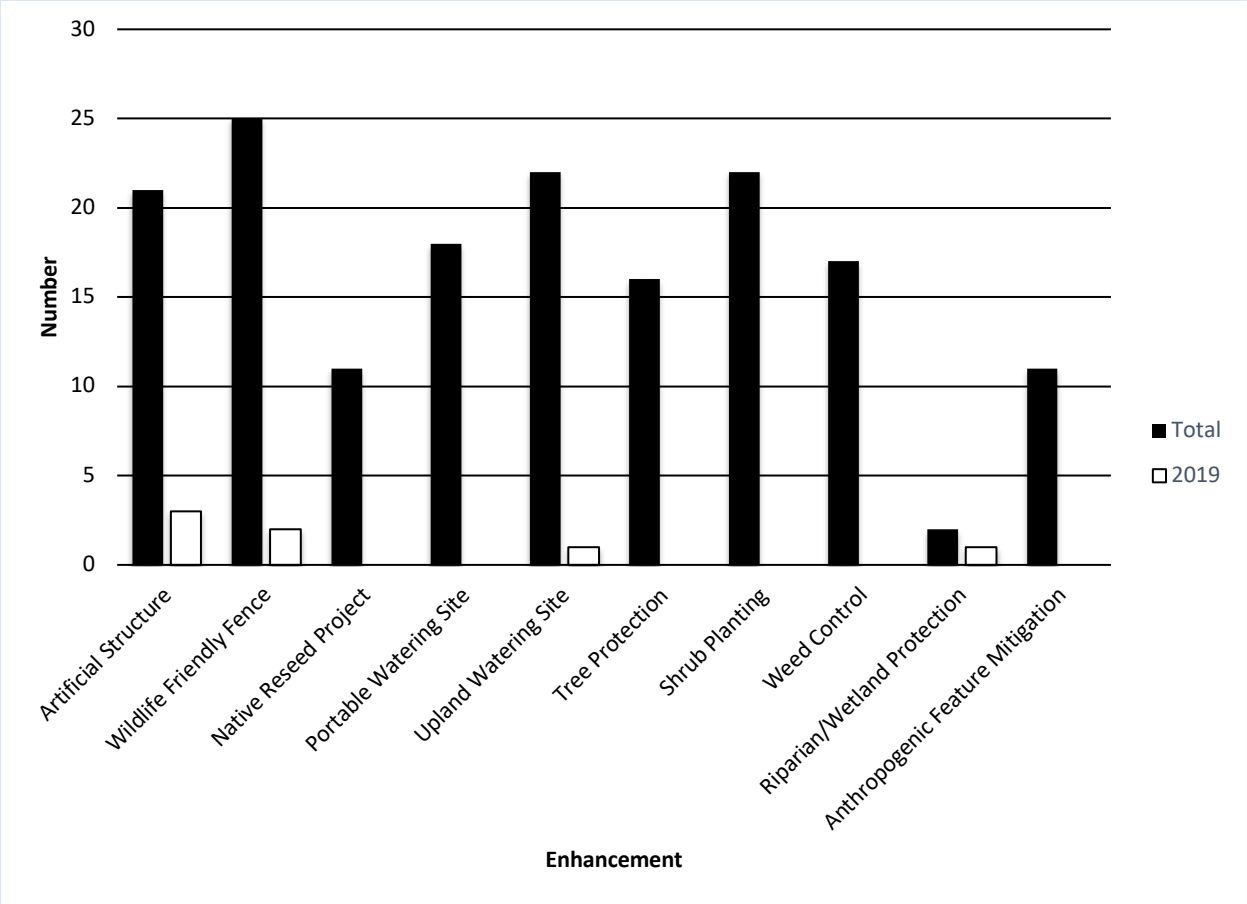

Figure 1. The number and type of habitat enhancements implemented by MULTISAR in 2019 and since 2005.

As part of our ongoing monitoring, we reassessed four ranches previously surveyed in 2013 and 2014, totalling 54,790 acres. We completed 176 range health assessments, 19 tame pasture health assessments, and five riparian assessments. In total, we had 2,605 wildlife observations and after two years of dry conditions saw average range health scores either remain stable or improve from 65 to 78%, 73 to 78%, 74 to 74%, and 82 to 82%. We also saw the number of unhealthy range sites identified during baseline assessments decrease from 3 to 0%, 9 to 4%, 12 to 4%, and 14 to 0%. Having a mosaic of range land conditions is important for wildlife as some species prefer land with less litter or low structure; however, having most of the land base in healthy conditions is desired.

Based on trends from reassessment properties we continue to generally see a decrease in grassland birds along with an increase in the number of Richardson's ground squirrels. Some properties, like our Bull Trail Conservation Site, have shown increases in grassland birds like Baird's sparrow and have maintained populations numbers for Sprague's pipits although at low numbers. A new sharp-tailed grouse lek was also identified on Bull Trail in 2019.

We monitored 50 enhancements in 2019, including ferruginous hawk poles, native grass restoration projects, upland watering systems, portable watering systems, shrub/forb plantings, and weed control plots. Our native grass restoration sites have maintained their health or increased in health since last year and continue to be used by several grassland birds, sharp-tailed grouse, and pronghorn. We have partnered with the University of Lethbridge; they have started studying insect abundance and diversity on the restoration sites and adjacent native grasslands. This should help us better understand how insect numbers may be influencing our grassland bird population on a ranch. Of note is the identification of the *Endangered* nine-spotted lady beetle, blue-margined ground beetl,e and many others that indicate grassland ecosystem recovery. As part of our monitoring, we also provide landholders with a survey regarding the program and it was noted that participants increased their knowledge of range management principals and most were prepared to make some changes. When asked what each landowner thought was most beneficial to having an HCS completed on their land, they appreciated knowing more about their land and using the report as a tool for assistance with management decision-making. All participants were willing to complete projects that help benefit their cattle operations as well as wildlife, and have agreed to voluntarily work with us for another five years. After years of implementing the MULTISAR process we finally published our work in Society of Range Management's journalm, *Rangelands.* Titled "Listen, Learn, Liaise: Taking the Species Out of Species-At-Risk Through Engagement," this paper has already been widely circulated, with request for a copy coming in from as far away as South America.

Conclusions

Long-term relationships built on mutual respect and trust between conservation groups and landowners have allowed us to collaborate with producers on habitat enhancements. These

improvements not only benefit habitat for species at risk, but also provides essential resources for upland game birds and ungulates that are highly valued by recreational users who access these ranches. Declines in grassland bird numbers for key species like chestnut-collared longspurs and Sprague's pipits continue to be noteworthy because breeding habitat on these properties has remained stable based on comparisons between our original assessments and the reassessments completed this year. This leads to questions about other factors at play, like food availability, or factors outside producers' influence like migration and wintering habitat. Our hope is the University of Lethbridge's work will aid in a better understanding of the food component of these questions.

Communications

ACA:

- Assisted at the Women's Grazing School: Julie Landry-DeBoer, July 2019.
- Interview for sage grouse article in ACA's *Conservation Magazine:* Brad Downey and Tyler Johns, January 2020.
- Presented at the Milk River Watershed Council Canada's Community Appreciation Event on the MULTISAR Project: Julie Landry-DeBoer, March 2020.
- Toured Environment Canada directors and staff around our native grass restoration projects: Brad Downey, June 2019.
- Presented to the University of Lethbridge on grasslands and grassland restoration: Brad Downey, January 2020.
- Presented at the Transboundary Workshop/Native Prairie Restoration and Reclamation Workshop in Regina, Saskatchewan: Brad Downey, February 2020.
- Participated in Youth Range Days at both Thomson and Sandstone Ranches: Lee Moltzahn, July 2019 – Range Health, Plant ID, Ranch Plan coaching, Plant ID Quiz.
- Participated in Youth Range Days at Grain Hall: Raptors and nesting structures presentation, raptor nest building exercise/demonstration, and grassland songbird identification: Julie Landry-DeBoer and Adam Moltzahn, July 2019.
- At Aggie Days at the Lethbridge Exhibition, we talked with hundreds of kids about species at risk and the MULTISAR Project: April 2019, Julie Landry-Deboer.

- Published a manuscript in the journal *Rangelands*, titled "Listen, Learn, Liaise: Taking the Species out of Species-At-Risk through Engagement": Paul Jones, October 2019.

Partners:

- Published MULTISAR: A Multi-Species Conservation Strategy for Species at Risk in the Grassland Natural Region of Alberta 2019/20: MULTISAR, March 2019.
- Published *Grassland Gazette* newsletter: Winter 2019/20 issue.
- Maintained and updated MULTISAR Facebook page and Twitter account: Kristen Rumbolt.

Literature Cited

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Photos

Early morning wildlife assessments near Sweet Grass Hills. Photo: Brad Downey

ACA seasonal staff Ryan James completing litter assessments. Photo: Lee Moltzahn