

Alberta Conservation Association
2022/23 Project Summary Report

Project Name: MULTISAR – South Saskatchewan

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Partnerships

Alberta Beef Producers

Alberta Environment and Protected Areas

AltaLink

Canadian Cattle Association

Canadian Roundtable for Sustainable Beef

Cows and Fish – Alberta Riparian Habitat Management Society

Environment and Climate Change Canada

EQUUS

Landholders

Prairie Conservation Forum

Key Findings

- We collaborated with ranchers and completed five Habitat Conservation Strategies, one Habitat Conservation Strategy reassessment, and three Habitat Management Plans.
- We partnered with 12 producers on 19 enhancements including two portable electric fencing units, two fencing projects (riparian fencing and fencing off loggerhead shrike habitat), three portable watering units, five upland water developments (i.e., pasture pipeline designed to move water throughout the property, spring development, permanent

water troughs), three ferruginous hawk poles and two platforms (delivered to landowners to create their own ferruginous hawk poles), and weed control assistance on three properties.

- We have identified four new properties (~30,080 acres) to collaborate with in 2023/24 and two producers will have their land reassessed (~20,960 acres).

Abstract

There are numerous species at risk in southern Alberta, often overlapping with agricultural landscapes. Existing management practices on these lands are what have allowed these species to persist, but there are also many opportunities on these lands and adjoining lands to further enhance habitat quality for these species while also benefiting agricultural operations. We work collaboratively with multiple partners to maintain, increase, and improve habitat for species at risk within the Grassland Natural Region of Alberta. In the past year, we collaborated with five new ranchers completing Habitat Conservation Strategies (HCS) on their properties, completed an HCS reassessment on a sixth ranch, and completed Habitat Management Plans (HMP) for three additional operators, covering a total of 101,060 acres of land. We identified 178 different species on these nine properties, including four species listed as federally *Endangered*, nine species listed as *Threatened*, and nine species listed as *Special Concern*. In all, we had 5,533 wildlife observations. On these same nine properties, we conducted 180 detailed range transects, 344 range health assessments, 37 tame pasture assessments, 253 visual assessments, 56 HMP litter/Robel pole measurements, and 72 riparian health assessments.

We also partnered with 12 producers to implement 19 enhancements including two portable electric fencing units, two fencing projects (riparian fencing and fencing off loggerhead shrike habitat), three portable watering units, five upland water developments (i.e., pasture pipeline designed to move water throughout the property, spring development, permanent water troughs), three ferruginous hawk poles and two platforms (delivered to landowners to create their own ferruginous hawk poles), and weed control assistance on three properties.

Our interaction with the ranching community throughout southern Alberta continues to grow, and we anticipate partnering with two to three additional operators each year moving forward. In addition to formulating a long-term detailed plan with each ranch, we will continue to identify

and help the operator to implement key enhancement activities as opportunities occur in the coming years.

Introduction

There are numerous species at risk (SAR) in southern Alberta. Their habitat needs often overlap with agricultural landscapes. Existing practices on these lands have allowed these species to persist, but there are also many opportunities to improve habitat functionality more fully while also benefiting agricultural operations. We work collaboratively with multiple partners to maintain, increase, and improve habitat for SAR within the Grassland Natural Region of Alberta. This partnership involves habitat assessments, development of voluntary habitat conservation plans, and subsequent implementation and monitoring of on-the-ground enhancements.

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 Alberta Conservation Association (ACA) and the landowner and clarifies that the landowner allows reasonable public access for recreation on their ranch. A landowner questionnaire is completed to identify what is or is not working from their perspective, and to document landowner perspectives across years. This questionnaire helps us readjust any part of the plan in the future and can show changes in landowner perceptions of SAR over time.

The largest part of the HCS process is completing in-depth wildlife, fish, and habitat surveys, along with vegetation inventories, and range and riparian health assessments. Then, after evaluating survey results, we develop a plan, paying attention to the needs of SAR and the needs and objectives of the ranching operation. Mutually agreed-upon solutions are adopted and integrated into the strategy, with priorities listed and a monitoring plan to assess progress. After signing a five-year stewardship agreement, we assist the producer with implementing the mutually agreed-upon enhancements and grazing strategies. Progress when possible is reassessed every five years, with adjustments incorporated into an active management plan for the operation. Another five-year stewardship agreement may be signed for continued implementation of the strategy.

In 2018/19, Habitat Management Plans (HMP) were introduced as an extension of the MULTISAR HCS to focus solely on proposed habitat improvements at a given ranch and to continue collecting some wildlife and habitat data. HMPs are a more condensed version of the HCS applied at the ranch level but involve detailed wildlife surveys and simplified wildlife habitat assessments to document SAR and habitat indicators. In 2022, we completed four HMPs.

Methods

Our first surveys on the properties included sharp-tailed grouse lek searches in early spring. After migrating songbirds returned, we then completed point-count surveys (including one Robel pole measurement) on properties to measure the presence of birds and other wildlife (Landry-DeBoer and Downey 2010). We surveyed riparian areas on these ranches by walking along the edge of the waterbodies listening and looking for amphibians (Kendell 2002) as well as looking for raptor nests. Other targeted surveys included setting up bat meters and song meters in key areas to identify bats and record birds and amphibians, respectively, that may have been missed during point counts.

In early August, we surveyed greater 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) (GoA 2013). We also completed range health assessments (Adams et al. 2005) and incorporated these results along with those from the wildlife inventories into landholder-specific HCSs. These plans map out objectives going forward, along with potential habitat enhancements to guide future work.

The range surveys included vegetation inventories (detailed transects) and range and tame pasture health assessments. Rare, invasive, and poisonous plants were incidentally recorded when they were observed. Inventory data collection and analysis were based on established protocols (AEP 2021). Detailed transects were established on representative range sites in each field. Plant composition and community type was determined and foliar cover for grasses, forbs, and shrubs were estimated and recorded on the provincial standard forms.

For our HMPs, detailed wildlife inventories, including sharp-tailed grouse, snake, amphibian, and multi-species point-count surveys, were completed. At each multi-species point-count survey

location, a Robel pole measurement and litter weight estimate were taken following protocols by Robel et al. (1970) and Willoughby (2007), respectively, to gain some insight on wildlife habitat for a particular land base (no other range health indices measured).

A large part of our effort goes into communication activities. These activities included presentations, online meetings, participation in several conferences and workshops, and when possible, tours to funding agencies and partners.

Results

In 2022, we completed wildlife, range, and riparian surveys on nine ranches (~101,060 acres) and developed the associated management plans (HCSs and HMPs). We identified 177 different species on these nine properties, including four species that are federally *Endangered*, nine species that are *Threatened*, and nine that are *Special Concern*. In all, we had 5,533 observations of wildlife species. On these same nine properties, we also conducted 180 detailed range transects, 344 range health assessments, 37 tame pasture assessments, 253 visual assessments, 56 HMP litter/Robel pole measurements, and 72 riparian health assessments.

We completed 19 new habitat enhancements as part of recommendations identified in HCSs and HMPs (Figure 1). We provided two landowners with portable electric fence units to assist with grazing management, including keeping cattle out of sensitive riparian areas and promoting grazing in areas that cattle tend to avoid.

We assisted with two fencing projects to improve riparian habitat health, and to protect a loggerhead shrike thicket. We provided three portable watering units to protect riparian habitat and dugouts by deterring cattle from loafing in the water and at the same time provide fresh, cleaner drinking water for the cattle. We assisted with five upland water developments including using a pasture pipeline project to move water to different parts of a property, developing one spring, and installing permanent water troughs. To encourage nesting ferruginous hawks, we helped install three hawk poles on two properties as well as provided two nest platforms to one other property for their installment. Finally, we assisted with weed control on three properties.

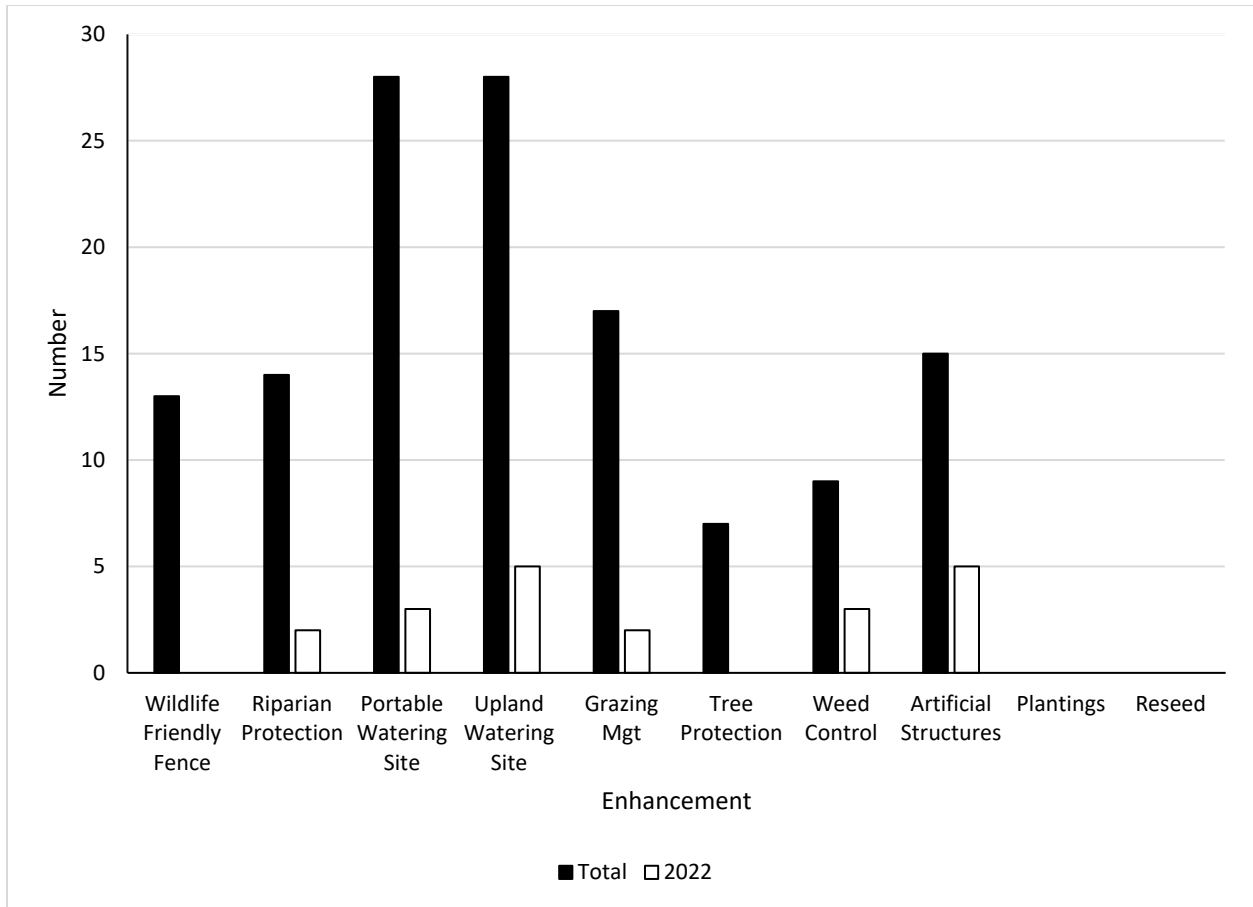


Figure 1. The number and type of habitat enhancements implemented through the MULTISAR – South Saskatchewan Project since 2016.

Conclusions

Within the MULTISAR program we aim to foster long-term relationships built on mutual respect and trust between conservation groups and landowners. These relationships allow us to collaborate with producers and implement enhancements throughout the MULTISAR – South Saskatchewan Project area equaling more than 200,000 acres. Landholders view this collaboration as non-threatening, and new relationships are being formed because of this awareness and through promotion of the program in the local community. The South Saskatchewan Watershed expansion has led to renewed funding partnerships until March 2026 (~\$450,000/year) from Environment and Climate Change Canada Priority Places Funding. Our advisory team, consisting of Alberta Beef Producers, Canada Cattle Association, and Canadian Roundtable for Sustainable Beef, along with the landholders we collaborate with,

continue to provide vital support and promotion of the program within the ranching community. It is through these partnerships that we strive to foster mutually beneficial relationships with the agriculture community and improve wildlife habitat for all species on this land base.

Communications

ACA

- Brad Downey: Restoring Native Grasslands. Interview with Let's Go Outdoors, posted January 26, 2023.
- Brad Downey: Ferruginous Hawks. Interview with Let's Go Outdoors. Posted August 5, 2022.
- Brad Downey: Interview with Susan Hagan on "What does Conservation Mean." *ACA Conservation Magazine* Spring/Summer 2023.
- Brad Downey: Interview with Susan Hagan on "All about owls and why we should give a hoot." *ACA Conservation Magazine* Fall/Winter 2022 Pages 52-55.
- Poster at Prairie Conservation and Endangered Species Conference MULTISAR: A Multi-species Habitat Stewardship Project. Feb 21-23, 2023.
- Julie Landry-DeBoer: Southern Alberta Grazing School for Women: Oyen, AB (July 2022).
- Julie Landry-DeBoer and Kristen Rumbolt Miller hosted a landowner liaison with students of the Lethbridge College (September 2022).
- Phil Rose: "Connecting the Dots between Grassland Birds, Insects and Vegetation – The Silver Sage Research Project" (Presentation). Prairie Conservation and Endangered Species Conference Feb 21-23, 2023.

Partners

- Published MULTISAR: A Multi-Species Conservation Strategy for Species at Risk in the Grassland Natural Region of Alberta 2022/23: MULTISAR, April 2023.
- Published *Grassland Gazette* newsletter: Winter 2022/23 issue.
- Maintained and updated MULTISAR Facebook page and Twitter account: Kristen Rumbolt; Prairie Conservation Forum.

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Willoughby, M.G. 2007. *Range Survey Manual for Alberta Rangelands*. Version One. Rangeland Management Branch, Alberta Sustainable Resource Development. Edmonton, AB. Pub. No.: I/176. ISBN: 978-0-7785-6507-9 (Print edition), ISBN: 978-0-7785-6508-6 (Online edition).

Photos



Photo 1. ACA biologist, Phil Rose, collecting wildlife data. Photo: Julie Landry-DeBoer



Photo 2. ACA biologist, Phil Rose, measuring habitat litter. Photo: Julie Landry-DeBoer