

Alberta Conservation Association
2021/22 Project Summary Report

Project Name: MULTISAR – South Saskatchewan

Wildlife Program Manager: Doug Manzer

Project Leader: Brad Downey

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Partnerships

Alberta Beef Producers

Alberta Environment and Parks

AltaLink

Canadian Cattlemen's Association

Canadian Roundtable for Sustainable Beef

Cows and Fish – Alberta Riparian Habitat Management Society

Environment and Climate Change Canada

EQUUS

HUVAN Construction

Landholders

Prairie Conservation Forum

Key Findings

- We collaborated with ranchers and completed four Habitat Conservation Strategies (HCS), three HCS reassessments, and one Habitat Management Plan.
- We partnered with 23 producers on 32 enhancements including five portable electric fencing units, eight fencing projects (i.e., riparian, wildlife-friendly, fencing out dugouts, and reflector installments), seven portable watering units, seven upland water

developments (i.e., dugout enhancements, permanent water troughs, pasture pipeline projects designed to move water throughout the property, etc.), four ferruginous hawk poles, two groupings of riparian tree protections, construction of two bat condos, shrub and native seed plantings, and weed control for three properties.

- We have identified eight new properties (~39,000 acres) to collaborate within 2022/2023 and one producer will have their land reassessed (~62,000 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 benefitting 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 2021/2022 fiscal year, we collaborated with ranchers and completed four new Habitat Conservation Strategies (HCS), three HCS reassessments, and one Habitat Management Plan (HMP) on 21,320 acres of land. We partnered with 23 producers on 32 enhancements including five portable electric fencing units, eight fencing projects (i.e., riparian, wildlife-friendly, fencing out dugouts, and reflector installments), seven portable watering units, seven upland water developments (i.e., dugout enhancements, permanent water troughs, pasture pipeline projects designed to move water throughout the property, etc.), four ferruginous hawk poles, two groupings of riparian tree protections, construction of two bat condos, shrub and native seed plantings, and weed control for three properties.

We identified 167 different species on these eight properties, including two species that are federally considered *Endangered*, six species that are *Threatened*, and four that are *Species of Special Concern*. In all, we had 2,330 observations of species. On these same eight properties, we also conducted 49 detailed range transects, 150 range health assessments, 27 tame pasture assessments, 183 visual assessments, 15 HMP litter/Robel pole measurements, and nine riparian health assessments. Long-term relationships built on mutual respect and trust between conservation groups and landowners have allowed us to collaborate with producers on 30

properties and implement enhancements on more than 200,000 acres since the MULTISAR project expanded in 2016 to include the South Saskatchewan Watershed.

Introduction

There are numerous species at risk (SAR) in southern Alberta. Their habitat needs often overlap with agricultural landscapes. Existing management practices on these lands is what has 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 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 change over time with landowner beliefs on SAR.

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, we develop a plan, which after evaluating survey results, 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, along with 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 a 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 2021, we completed one HMP.

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, multi-species point count surveys, snake, and amphibian 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 2021, we completed wildlife, range, and riparian surveys on eight ranches (~21,320 acres) and developed the associated management plans (HCSs and HMPs). We identified 167 different species on these eight properties, including two species that are federally considered *Endangered*, six species that are *Threatened*, and four that are *Species of Special Concern*. In all, we had 2,330 observations of species. On these same eight properties, we also conducted 49 detailed range transects, 150 range health assessments, 27 tame pasture assessments, 183 visual assessments, 15 HMP litter/Robel pole measurements, and nine riparian health assessments. Long-term relationships built on mutual respect and trust between conservation groups and landowners have allowed us to collaborate with producers on 30 properties and implement enhancements on more than 200,000 acres since the MULTISAR project expanded in 2016 to include the South Saskatchewan Watershed.

We completed 32 new habitat enhancements as part of recommendations identified in HCSs and HMPs (Figure 1). We provided five 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 eight wildlife-friendly fencing and other fencing projects to provide better wildlife movement and to improve riparian and dugout habitat health. Seven portable watering units were put in place to protect riparian areas to deter cattle loafing and at the same time provide fresh water for cattle. We also assisted with dugout deepening and enhancement and helped develop a pasture pipeline to carry water into the uplands away from riparian areas to several locations.

We helped install four hawk poles on one property to encourage nesting of ferruginous hawks and protected other suitable nesting sites (lone trees) with corral panels to prevent cattle from rubbing on them, and we also protected groupings of trees with wire to reduce beaver tree harvest in two areas. To help maternal roosting bats, two bat condos were built, one for a property that a building is being taken down and one in an area that used to have buildings.

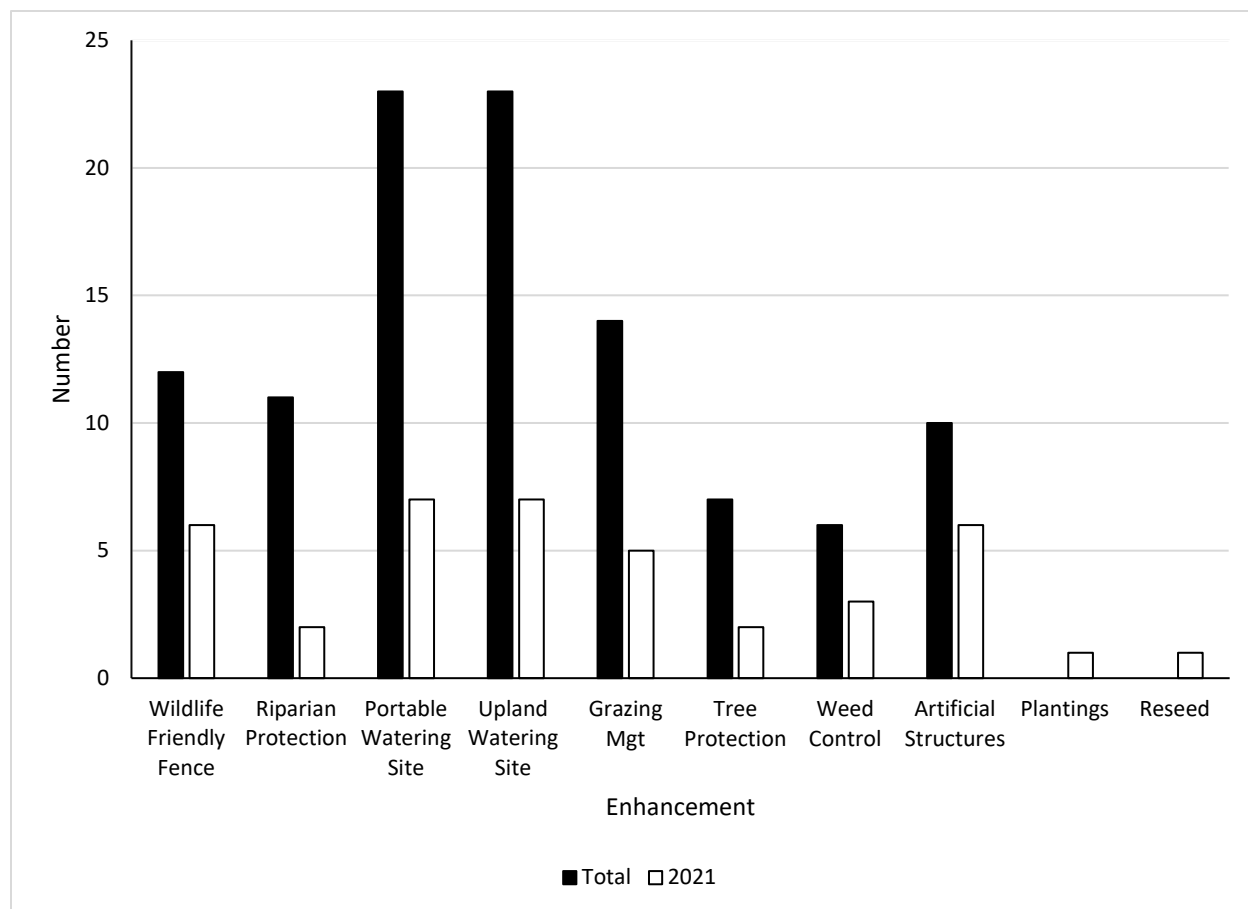


Figure 1. The number and type of habitat enhancements implemented through the MULTISAR – South Saskatchewan project since 2016.

Conclusions

Long-term relationships built on mutual respect and trust between conservation groups and landowners have allowed us to collaborate with producers and implement enhancements on more than 200,000 acres through the MULTISAR South Saskatchewan Project. 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 2023 (~\$345,000/year) from Environment and Climate Change Canada Priority Places Funding. Our advisory team, consisting of Alberta Beef Producers, Canada Cattlemen's 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: Presentation for the American and Canadian Ornithological Conference (August 2021)
- Julie Landry-DeBoer: Help put on the virtual presentations for Southern Alberta Grazing School for Women and the Range Stewardship Course (July 2021)
- Adam Moltzahn: Hawk camera article in *Alberta Farmer Express*:
<https://www.albertafarmexpress.ca/news/a-birds-eye-view-of-majestic-raptors/>
- Julie Landry-DeBoer: News article in the *Prairie Post*:
<https://www.thestar.com/news/canada/2021/07/27/southern-alberta-grazing-school-for-women-is-back-just-in-webinar-form.html>

Partners

- Published MULTISAR: A Multi-Species Conservation Strategy for Species at Risk in the Grassland Natural Region of Alberta 2021/22: MULTISAR, April 2022.
- Published *Grassland Gazette* newsletter: Winter 2021/22 issue.
- Maintained and updated MULTISAR Facebook page and Twitter account: Kristen Rumbolt; Prairie Conservation Forum.

Literature Cited

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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 staff member, Sarah Vriend, and Prairie Conservation Forum staff member, Stephanie Jaffray, hiking to a range assessment site. Photo: Dayce Rhodes



Photo 2. ACA staff member, Phil Rose, assisting with bio-control release to help control leafy spurge. Photo: Julie Landry-DeBoer



Photo 3. ACA staff member, Amanda MacDonald, morning hike to wildlife survey location.

Photo: Adam Moltzahn



Photo 4. ACA staff member, Brad Downey, assessing a fish barrier on a creek.

Photo: Mike Verhage