Alberta Conservation Association

2021/22 Project Summary Report

Project Name: MULTISAR – West

Wildlife Program Manager: Doug Manzer

Project Leader: Mike Verhage

Primary ACA staff on project: Brad Downey, Ashlyn Herron, Brad Hurkett, Mike Jokinen, Amanda MacDonald, Adam Moltzahn, Allie Olson, Logan Redman, Mike Verhage, Sarah Vriend, and Cailyn Wilson

Partnerships

Alberta Beef Producers
Alberta Environment and Parks
Alberta Fish and Game Association – Minister's Special Licence Program
Canadian Cattlemen's Association
Canadian Roundtable for Sustainable Beef
Fisheries and Oceans Canada
Landholders in southwestern Alberta
Prairie Conservation Forum
Shell Foothills Legacy Fund

Key Findings

- We completed one Habitat Conservation Strategy in partnership with a cattle ranch (2,670 acres) located in southwestern Alberta. We partnered with this cattle producer to 1) implement temporary fencing to restrict cattle from accessing a stretch of Yarrow Creek that has important habitat for *Threatened* bull trout, and 2) rehabilitate a riparian area that was previously impacted by livestock by relocating a corral system upland.

- We partnered with a second cattle producer to improve water quality by implementing three creek crossings on Ings Creek, a tributary to the Highwood River that contains *Threatened* bull trout.
- We partnered with a third cattle producer to develop an upland watering site to reduce pressure on riparian habitat in five pastures.
- We partnered with a fourth cattle producer to implement a portable water pump to lessen pressure on a wetland complex spanning several pastures.

Abstract

The majority of Species at Risk (SAR) are found in the Grasslands Natural Region of southern Alberta. However, the Foothills, Parkland, and Rocky Mountain natural regions of southwestern Alberta boast some of the province's most ecologically diverse landscapes and provide habitat for many SAR including little brown bat, bull trout, grizzly bear, limber pine, western wood-pewee, and westslope cutthroat trout. Best management practices and habitat enhancements occurring on farmlands within this area have enabled many of these species to persist, but there are also many opportunities to further enhance habitat quality for these species while mutually benefiting agricultural operations.

In 2021, we collaborated with one private landowner to complete a Habitat Conservation Strategy on a ranch totaling approximately 2,670 acres. We identified 80 different wildlife species on this ranch, including 23 that are considered *Endangered*, *Threatened*, or *Species of Special Concern*. In total, we had 384 observations of wildlife species; and conducted 62 range habitat assessments, four flowing water health inventories, and six freshwater assessments.

We partnered with four cattle producers to implement five habitat enhancements, including implementing alternate watering systems for cattle, relocating livestock corrals away from sensitive riparian habitat, and temporarily fencing off a portion of Yarrow Creek that supports populations of bull trout. Building on long-term landowner relationships that ACA has established through previous projects have enabled us to collaborate with producers and implement enhancements in 2021. Our goal is to continue building on this reciprocated trust and respect so that we can collaborate on future projects that mutually benefit habitat for wildlife, SAR, and ranching operations in southwestern Alberta.

Introduction

Many species at risk occur in southwestern Alberta, an area characterized by fescue grasslands, rolling topography, deciduous and coniferous forest that often overlap with agricultural landscapes. Existing management practices on these lands is what has allowed these species to persist. We work collaboratively with multiple partners to further increase, maintain, and improve habitat for Species at Risk (SAR) in southwestern Alberta, while mutually benefiting the producer's operations. This partnership involves wildlife surveys, habitat assessments, development of voluntary habitat conservation strategies, 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. We develop these plans after first conducting in-depth wildlife, fish, and habitat surveys, along with vegetation inventories and range and riparian health assessments. We evaluate these results with the needs of SAR and balance the plan with 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 agreed-on enhancements and grazing strategies. Progress is reassessed every five years, with adjustments incorporated into an active management plan for the operation. A landowner questionnaire is also completed to identify what is or is not working from their perspective, which helps us readjust the plan going forward. Another five-year stewardship agreement may be signed for continued implementation of the strategy.

Methods

In mid-April, we conducted a sharp-tailed grouse survey following established protocols (GoA 2013). In the spring, we completed multi-species point count surveys to measure the occupancy of birds and document the presence and abundance of all wildlife species observed on the ranch (Landry-DeBoer and Downey 2010). We also completed amphibian surveys and backpack electrofishing surveys in the summer months making observations of wildlife and fish associated

with these areas. To further supplement our visual observations, we set up an Autonomous Recording Unit (ARU) in suitable habitat to detect the presence of bat species.

We also completed range health assessments (Adams et al. 2016) and riparian health assessments following protocols outlined by Cows and Fish (Ambrose et al. 2009, Fitch et al. 2009). Results from these assessments were incorporated into a landholder-specific HCS report, that includes management recommendations and suggestions for implementing habitat enhancements that mutually benefit the ranching operation and habitat for SAR.

Ordinarily, a large part of our effort goes into communication activities; however, this past year's activities were somewhat limited due to restrictions associated with the COVID-19 pandemic.

Despite these limitations, we voluntarily provided a project overview via online presentation to Fisheries and Oceans Canada (DFO), a funding partner that facilitates the Habitat Stewardship Program for Aquatic Species at Risk. We usually participate in several conferences and workshops throughout the year; however, we did not complete these this year. We anticipate that we will return to these activities once it is safe to do so.

Results

In 2021, we completed detailed wildlife inventories, range and riparian health assessments, and made subsequent management recommendations for habitat enhancements on one ranch (2,670 acres) located in southwestern Alberta. In collaboration with the producers on this ranch, we completed an HCS report and associated management plans where we identified 80 different wildlife species, including 23 that are considered *Endangered*, *Threatened*, or *Species of Special Concern* (Figure 1). Noteworthy observations that occurred during fish and wildlife surveys included identifying a previously undocumented sharp-tailed grouse lek, confirming the presence of bull trout (*Threatened*) in a stretch of Yarrow Creek, and detecting several bat species including the *Endangered* little brown bat and *Endangered* northern myotis. In total, we had 384 observations of wildlife species. On this same ranch, we also conducted 13 detailed range transects, 28 range health assessments, ten tame pasture assessments, 11 forest health assessments, four flowing water health inventories, and six freshwater assessments.

In 2021, we implemented five new habitat enhancements to reduce pressure on riparian habitat. In collaboration with a producer near the hamlet of Twin Butte, we relocated a livestock corral system away from a sensitive riparian area and implemented temporary fencing to restrict cattle from accessing a stretch of Yarrow Creek, which supports bull trout. In collaboration with three additional landowners, all near Longview, we implemented three creek crossings along Ings Creek, a tributary to the Highwood River that supports bull trout, converted a gas pump to a solar water pump to assist with cattle distribution and relieve pressure on sensitive riparian habitat within five pastures, and supplied a portable water pump to maintain clean water to several dugouts and a wetland complex spanning several fields.

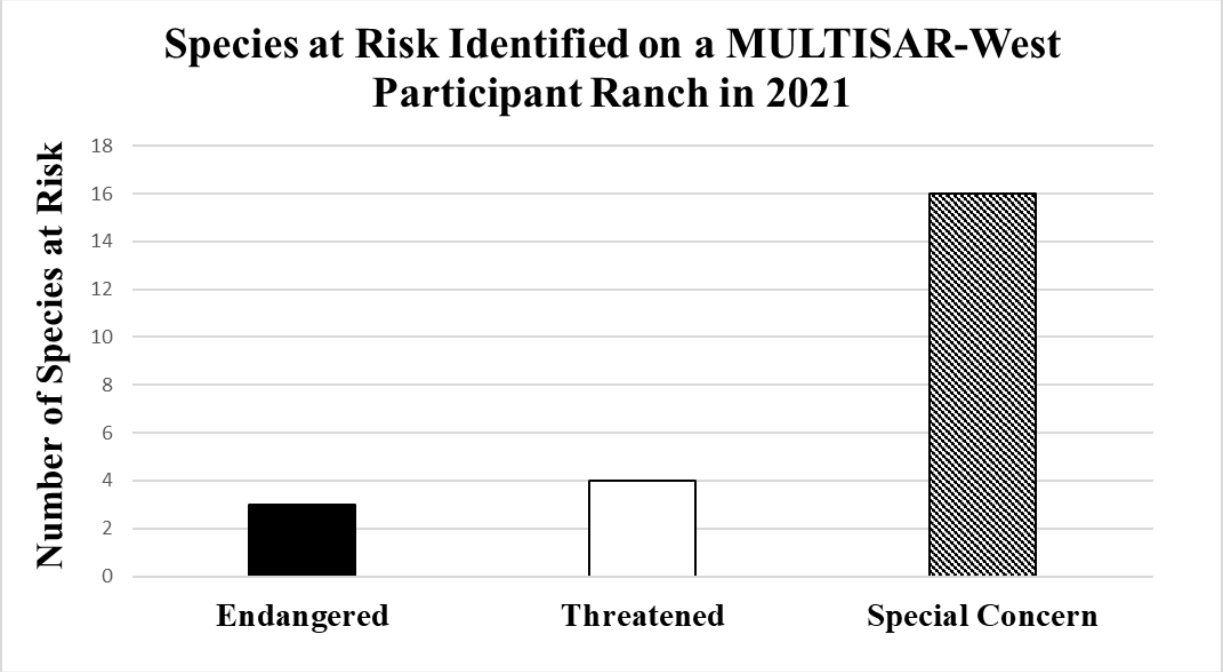

Figure 1. Species at Risk identified on a MULTISAR – West participant ranch in 2021.

Conclusions

Long-term relationships built on mutual respect and trust between conservation groups and landowners have allowed Alberta Conservation Association (ACA) to collaborate with producers and implement enhancements on 2,670 acres in southwestern Alberta in 2021. To date, this project has benefitted eight producers, with producers on another 3,840 acres expressing interest for 2022. Participating 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 community. MULTISAR – West was initiated as a result of the positive feedback and desire of landholders for us to expand MULTISAR beyond the Milk River basin. The western expansion has led to funding partnerships (~$84,000 in 2021) and the support of Alberta Fish & Game Association – Minister's Special Licence Program, Canadian Cattlemen's Association, Canadian Roundtable for Sustainable Beef, DFO, Southern Alberta Land Trust, and private donations. 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

- Interviewed for *Outdoor Canada West Magazine* article on Alberta Fish & Game Association – Minister's Special Licence Program, Mike Verhage, May 2021.
- Presented MULTISAR - West Project Overview to DFO to highlight work completed and habitat enhancements funded by the Habitat Stewardship Program for Aquatic Species at Risk, Mike Verhage, July 2021.

Literature Cited

Adams, B.W., G. Ehlert, C. Stone, M. Alexander, D. Lawrence, M. Willoughby, D. Moisey, C. Hincz, A. Burkinshaw, J. Richman, K. France, C. DeMaere, T. Kupsch, T. France, T. Broadbent, L. Blonski, and A.J. Miller. 2016. *Rangeland Health Assessment for Grassland, Forest, & Tame Pasture*. Revised. Alberta Environment and Parks, Rangeland Resource Stewardship Section. Edmonton, Alberta, Canada. 125 pp.

Ambrose, N., G. Ehlert, and K. Spicer-Rawe. 2009. *Riparian Health Assessment for Lakes, Sloughs, and Wetlands – Field Workbook.* Second Edition. Modified from Fitch, L., B.W. Adam, and G. Hale. 2009. *Riparian Health Assessment for Streams & Small Rivers – Field Workbook: Caring for the Green Zone.* Second Edition. Cows and Fish Program. Lethbridge, Alberta, Canada. 94 pp.

Fitch, L., B.W. Adam, and G. Hale. 2009. *Riparian Health Assessment for Streams & Small Rivers – Field Workbook: Caring for the Green Zone.* Second Edition. Cows and Fish Program. Lethbridge, Alberta, Canada. 94 pp.

Government of Alberta (GoA). 2013. *Sensitive Species Inventory Guidelines.* Alberta Sustainable Resource Development. Edmonton, Alberta, Canada. 69 pp. Available online at https://open.alberta.ca/dataset/93d8a251-4a9a-428f-ad99-7484c6ebabe0/resource/f4024e81-b835-4a50-8fb1-5b31d9726b84/download/2013-sensitivespeciesinventoryguidelines-apr18.pdf (accessed April 3, 2019).

Landry-DeBoer, J.P., and B.A. Downey. 2010. "Habitat Conservation Strategies." Pages 12 – 23. In: Blouin, F., B.L. Downey, B.A. Downey, S.L. Frank, D.J. Jarina, P.F. Jones, J.P. Landry-DeBoer, and K.S. Rumbolt. 2010. *MULTISAR: A Multi-Species Conservation Strategy for Species at Risk In the Grassland Natural Region of Alberta*. 2009 – 2010 Report. Alberta Sustainable Resource Development, Fish & Wildlife Division. Alberta Species at Risk Report No. 135. Edmonton, Alberta, Canada. 71 pp.

Photos

Photo 1. ACA staff member, Brad Downey, completing wildlife surveys on a ranch in southwestern Alberta. Photo: Julie Landy-Deboer

Photo 2. ACA fisheries staff confirmed the presence of *Threatened* bull trout while completing electrofishing surveys on a stretch of Yarrow Creek on a ranch in southwestern Alberta. Photo: Mike Jokinen

Photo 3. A solar-powered, portable watering unit reduces cattle pressure on sensitive riparian habitat on a ranch near Twin Butte in southwestern Alberta. Photo: Mike Verhage