

Alberta Conservation Association
2022/23 Project Summary Report

Project Name: MULTISAR – West

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Project Leader: Mike Verhage

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Partnerships

Alberta Beef Producers

Alberta Environment and Protected Areas

Alberta Fish & Game Association – Minister’s Special Licence Program

Alberta Forestry, Parks, and Tourism

Canadian Cattle Association

Canadian Roundtable for Sustainable Beef

Fisheries and Oceans Canada

Huvan Construction

Landholders in southwestern Alberta

Municipal District of Ranchland No. 66

Prairie Conservation Forum

Key Findings

- We completed a Habitat Conservation Strategy reassessment in partnership with a cattle ranch (22,171 acres) located in southwestern Alberta. We partnered with this cattle producer to 1) implement a single span bridge across Sheppard Creek to improve water quality for *Threatened* westslope cutthroat trout, and 2) implement two portable watering units to reduce cattle pressure on Sheppard Creek and Hay Creek.

- We completed a second Habitat Conservation Strategy reassessment in partnership with a cattle ranch (2,196 acres) located in southwestern Alberta.
- We partnered with a third cattle producer to 1) implement rig mats/creek crossings to improve water quality in Ings Creek, a tributary to the Highwood River that supports the *Threatened* bull trout, and 2) erected a bat condo to provide alternate maternity roosting habitat for big brown bat, hoary bat, silver-haired bat (*Sensitive*) and western long-eared myotis.
- We partnered with a fourth cattle producer to implement a portable fence to reduce cattle disturbance and improve water quality in Olin Creek and Heath Creek, both tributaries to the Oldman River that supports *Threatened* bull trout and *Threatened* westslope cutthroat trout.
- We partnered with a fifth cattle producer to plant 1,000 riparian shrubs along Cabin Creek, a tributary to the Oldman River that supports *Threatened* bull trout and *Threatened* westslope cutthroat trout.

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 benefitting agricultural operations.

In 2022, we collaborated with a private landowner in southwest Alberta to complete a Habitat Conservation Strategy reassessment on a ranch totalling approximately 22,171 acres. We identified 101 different wildlife species on this ranch, including 12 that are considered *Endangered*, *Threatened*, or *Species of Special Concern*. In total, we had 767 observations of wildlife species and conducted 133 range health assessments.

We also collaborated with a second private landowner in southwest Alberta to complete a Habitat Conservation Strategy reassessment on a ranch totalling approximately 2,196 acres. On this ranch we identified 66 different wildlife species, including 11 that are considered *Endangered*, *Threatened*, or *Special Concern*. In total, we had 233 observations of wildlife species and conducted 28 range health assessments.

In 2022, we partnered with four cattle producers to implement five habitat enhancements, including the implementation of rig mats/creek crossings on Ings Creek, a single span bridge across Sheppard Creek, two portable watering units and one portable fencing unit to reduce cattle disturbance on riparian systems, and planting 1,000 riparian shrubs along Cabin Creek.

Our interaction with the ranching community in the southwest continues to grow, and we anticipate partnering with two to three additional landholders each year moving forward. In addition to formulating a long-term detailed plan with each ranch, we will continue to identify key enhancement activities and help the cattle producer to implement these activities as opportunities occur in future years.

Introduction

Many species at risk (SAR) occur in southwestern Alberta, an area characterized by fescue grasslands, rolling topography, and deciduous and coniferous forest that often overlap with agricultural landscapes. Existing management practices on these lands are what have allowed these species to persist. We work collaboratively with multiple partners to further increase, maintain, and improve habitat for SAR in southwestern Alberta, while mutually benefitting the producer's operation. 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 and 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 2022, 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 (if deemed necessary) in the summer months making observations of fish and wildlife 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.

Normally, a large part of our effort goes into communication activities; however, this past year's effort was somewhat limited due to restrictions associated with the COVID-19 pandemic and returning to "pre-covid" social conditions. 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.

Results

In 2022, we reassessed two cattle ranches located in southwestern Alberta, both originally assessed in 2017. On each ranch, we completed detailed wildlife inventories, range health assessments, and made subsequent management recommendations for implementing habitat enhancements.

In collaboration with producers on these ranches (totalling ~24,135 acres), we completed two HCS reassessment reports and associated management plans. We identified 132 different wildlife species, including 23 that are considered *Endangered*, *Threatened*, or *Species of Special Concern* (Figure 1). Noteworthy observations that occurred during wildlife surveys included identifying a previously undocumented sharp-tailed grouse lek, and observations of several *Threatened* species including barn swallow, olive-sided flycatcher, and western wood-pewee. In total, we observed 1,125 wildlife species and conducted 95 range health assessments, 40 tame pasture assessments, and 26 forest health assessments on these two ranches.

In 2022, we implemented six new habitat enhancements to reduce pressure on riparian areas and improve habitat for fish and wildlife. In collaboration with a producer west of Longview, we implemented rig mat creek crossings at four separate locations, including two sites along Ings Creek, a tributary to the Highwood River that supports *Threatened* bull trout and westslope cutthroat trout. We also erected a bat condo on this property to provide an alternate maternity roost for *Threatened* and *Endangered* bats. We partnered with a second private landholder located in the Porcupine Hills to plant ~1,000 riparian shrubs along Cabin Creek, a tributary to the Oldman River that supports *Threatened* bull trout and westslope cutthroat trout. We partnered with a third cattle producer to implement a portable fencing unit, to limit cattle access to Olin Creek and Health Creek, both tributaries to the Oldman River. We also collaborated with a ranch manager to implement a single span bridge across Sheppard Creek and installed two portable watering units on a grazing cooperative to improve cattle distribution/range health, reduce cattle pressure on sensitive riparian areas, and improve water quality for both terrestrial and aquatic species.

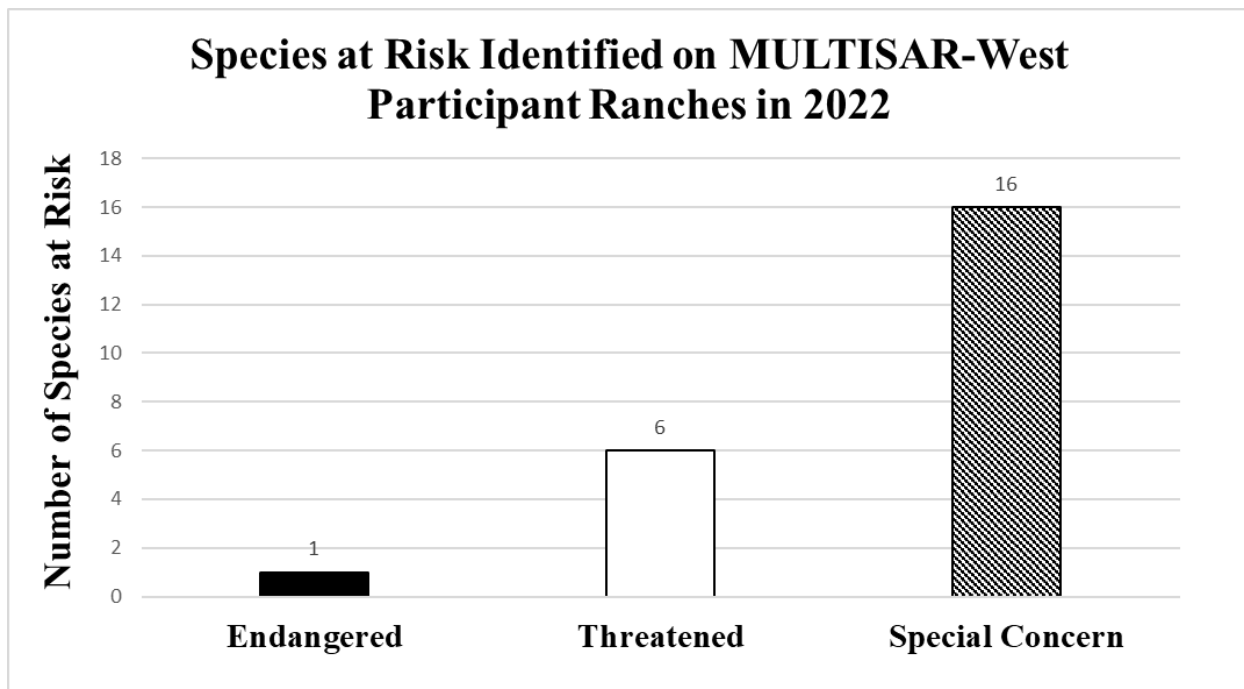


Figure 1. Species at Risk identified on two MULTISAR – West participant ranches (24,135 acres surveyed) in 2022.

Conclusions

Alberta Conservation Association (ACA) collaborated with producers and implemented enhancements on 24,367 acres in southwestern Alberta in 2022. To date, this project has benefitted eight ranches (47,790 acres), with producers on another 3,740 acres expressing interest for 2023. 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. 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

- Presented MULTISAR – West Project Overview to Fisheries and Oceans Canada (DFO), to highlight work completed and habitat enhancements funded by the Habitat Stewardship Program for Aquatic Species at Risk, Mike Verhage, September 28, 2022.

Literature Cited

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Photos



Photo 1. An upland water trough reduces cattle pressure on sensitive riparian habitat on a ranch near Longview in southwestern Alberta. Photo: Mike Verhage



Photo 2. ACA staff perform early morning, multi-species point count surveys on a ranch in southwestern Alberta. Photo: Mike Verhage



Photo 3. A solar-powered, double trough, portable watering unit provides clean water for cattle and reduces disturbance in the riparian area on a ranch near Chain Lakes in southwestern Alberta. Photo: Mike Verhage