Alberta Conservation Association
2010/11 Project Summary Report

Project Name: *MULTISAR*

Wildlife Program Manager: Doug Manzer

Project Leader: Paul Jones

Primary ACA staff on project:

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Partnerships

Alberta Summer Temporary Employment Program
Alberta Sustainable Resource Development
AltaLink
Canadian Natural Resources Limited
Government of Canada Habitat Stewardship Program for Species at Risk
Landholders
Prairie Conservation Forum

Key Findings

- Observed Sprague's pipits, chestnut-collared longspurs and sharp-tailed grouse in restored native grasslands three years after restoration.
- Over 240,000 acres have been enrolled in the MULTISAR program over the past six years. An upland watering site reduced the impact of over 100 cattle on the Milk River and associated riparian habitat.
- Two landholders agreed to install 11 km of wildlife-friendly fencing to facilitate pronghorn movement and improve nesting and rearing habitat for greater sage grouse.
- Two landholders agreed to plant 400 thorny buffaloberry and chokecherry shrubs and 148 silver sagebrush for loggerhead shrike nesting habitat and upland game bird winter habitat.

Introduction

Albertans have an interest in wildlife conservation. For some, this interest is expressed in a desire for actions to avoid declines or allow recovery of native species. For others, there is a concern that the rural economy and lifestyles may be impacted by species at risk initiatives.

MULTISAR is a program focused 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 between Alberta Conservation Association, Alberta

Sustainable Resource Development (ASRD), Prairie Conservation Forum and landholders. The primary goal of MULTISAR is to implement an effective process to manage multiple species on a defined landscape. These processes are compiled into landholder specific Habitat Conservation Strategies (HCS), leading to the implementation of habitat enhancement activities that benefit both the landholder and wildlife. The Milk River Watershed (6,776 km^2) and surrounding areas were chosen as the MULTISAR program area because they support the highest number of species at risk of any definable landscape in Alberta.

Methods

We completed multi-species point count surveys on all HCS properties to measure the occupancy of birds (Landry-DeBoer and Downey 2010).

We surveyed all riparian areas on five ranches (4,696 acres) by walking along the edge of the waterbodies listening and observing for amphibians following Kendell's (2002) protocols. In early October, we surveyed coulee slopes on foot to identify new snake hibernacula (dens) using the survey protocol described in the Sensitive Species Inventory Guidelines (ASRD 2010). We surveyed for greater short-horned lizard (*Phrynosoma hernandesi*) on foot with six people spread across the slope of the coulee where high quality habitat exists, following protocols described by James (2002).

We completed detailed range health transects and range health assessments following Alberta Lands Division protocols (Adams et al. 2005).

We monitored 30 sites using range health assessments and wildlife point counts to determine if enhancements implemented since 2005 are having the desired effect on wildlife habitat (Downey and Jones 2010).

We incorporated the results of the wildlife inventories and range assessments into landholder specific HCS's, identified potential habitat enhancements, and entered all wildlife observations into the Fish and Wildlife Management Information System (FWMIS).

Results

In 2010, we completed detailed wildlife and range surveys on five ranches (4,696 acres). We conducted 74 detailed range transects, 103 range health assessments and entered 2,300 wildlife observations into the FWMIS database. Species of interest encountered during wildlife surveys included ferruginous hawk (*Buteo regalis*), greater short-horned lizard and Sprague's pipit (*Anthus spragueii*).

MULTISAR signed three habitat enhancement agreements with landholders, then reseeded 90 acres back to native grass, planted 548 shrubs, and installed 5 km of wildlife-friendly fencing to improve range health around an active greater sage grouse (*Centrocercus urophasianus*) lek. We also installed 6 km of wildlife-friendly fence lines on the Sandstone Ranch and installed bat boxes on two properties. This brings to 38 the total number of enhancement projects completed by MULTISAR participants since 2005 (Figure 1).

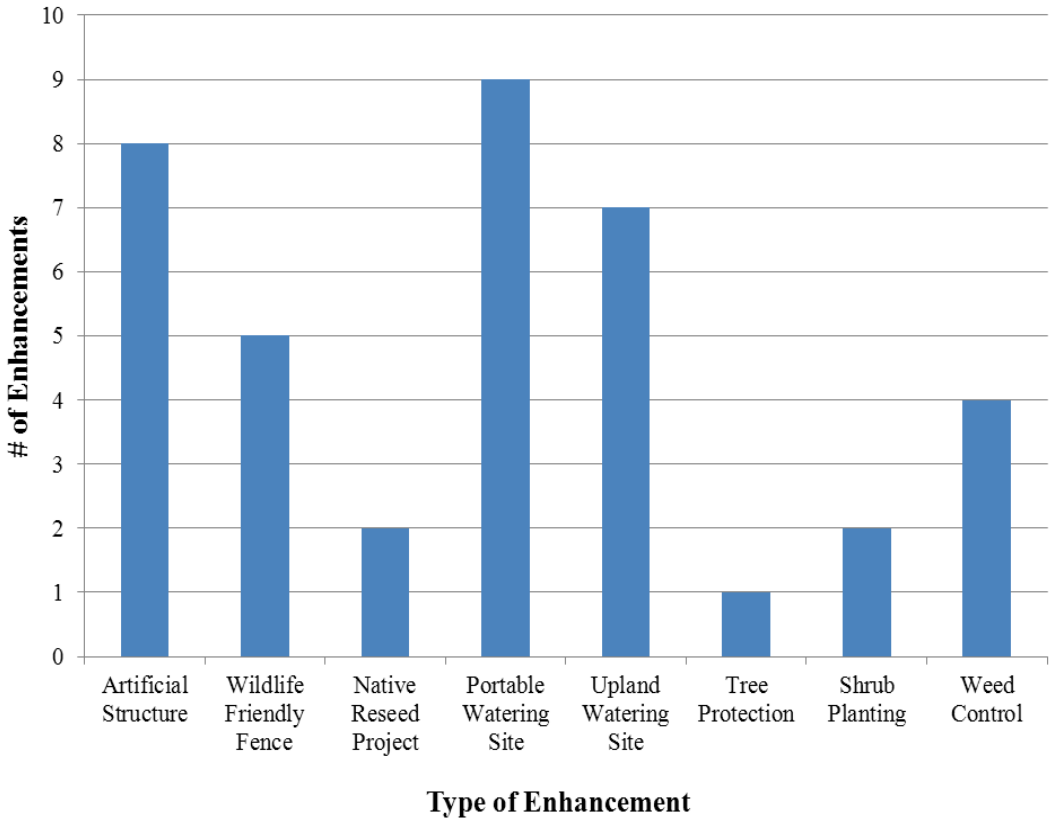

Figure 1. Number of specific habitat enhancements implemented by MULTISAR since 2005.

Our enhancement efforts implemented over the past few years are having a positive effect. Two of the three artificial nest structures that we recently setup are now being used by ferruginous hawks.

The nine portable watering units we surveyed in 2010 allowed emergent vegetation to increase at 67% of the sites previously disturbed by cattle.

One upland watering site, in particular, prevented 100 cattle from disturbing emergent vegetation along the Milk River, thereby improving both water quality and riparian habitat.

All 148 (100%) silver sagebrush plugs planted in early May were alive and doing well by September and had grown 5 to 8 cm. Only 46% of chokecherry shrubs and 36% of thorny buffaloberry shrubs planted in early May survived until the end of September.

We observed Sprague's pipit, chestnut-collared longspur (*Calcarius ornatus*) and sharp-tailed grouse *(Tympanuchus phasianellus)* using native grassland habitat three years after restoration. Wildlife diversity on reseeded sites has increased from a monoculture comprised of horned larks (*Eremophila alpestris*) to 14 species identified in 2010. Composition of native grass has also increased since 2008 (Table 1).

Table 1. Changes in native grass composition on 140 acres of reseeded cropland between 2008 – 2010.

Date Implemented	Target Species	November 2008		Latest Assessment 2010	
		Species	%	Species	%
Apr-08	Grassland birds	western/northern wheatgrass	9.6	blue grama grass	13.4
				northern wheatgrass	13.0
		blue grama grass	4.0	June grass	10.9
		June grass	0.5	western wheatgrass	6.7
		needle and thread grass	trace	needle and thread grass	3.3

Western wheatgrass (*Agropyron smithii*), northern wheatgrass (*Agropyron dasystachyum*), blue grama grass (*Bouteloua gracilis*), June grass*(Koelaria macrantha*), needle and thread grass (*Stipa comata*).

Conclusions

MULTISAR is a collaborative effort between landowners, conservation organizations, government and industry, and is succeeding at this level through co-operative teamwork with all partners working towards a common goal of habitat and species conservation. Success has not just been seen through direct improvements, but also through awareness of species at risk in landholder's day-to-day activities on their land. These activities include opening gates to free pronghorn trapped during snow storms, reporting swift fox sightings, and working with the county to use environmentally-friendly herbicides or alternative methods for weed control near northern leopard frog habitat. Through open communication and team-based wildlife habitat planning, MULTISAR will continue to implement components of species at risk recovery plans, provide information and education, implement habitat enhancements, and strive to build long-term relationships with landholders, government, non-government organizations and industry.

Communications

ACA:

- ACA *Conservation Magazine* article – Where the Green Grass Grows, Paul Jones.
- ACA *Conservation Magazine* article – Silver Sage Conservation Site, Carla Koenig.
- Article for ACA *Conservation Magazine* and Northern Leopard Frog document being developed by Kris Kendell – Kissing Frogs: The Balog Ranch Stewardship Story, Lorne Fitch.
- Presentation to the Prairie Conservation Forum – Members update on ACA, Brad Downey, Cardston, Alberta, June 2010.
- Developed MULTISAR three-panel display.
- Species at Risk Report No. 139 – 2010 Ferruginous Hawk Inventory and Population Analysis, Adam Moltzahn, January 2011.
- Assisted at the Women's Grazing School, Julie Landry-Deboer.
- Presented poster at the Human Dimensions of Natural Resource Management Conference – MULTISAR: Partnering in Species at Risk Conservation, Julie Landry-DeBoer, Revelstoke, British Columbia, October 2010.
- Presentation to Lethbridge College Fish and Wildlife Technicians – MULTISAR, Brad Downey, Lethbridge, Alberta, March 2011.

- Presentation to the Alberta Chapter of the Wildlife Society – Native Prairie Restoration in SE Alberta: Wildlife Implications, Brad Downey, Camrose, Alberta, March 2011.

Partners:

- MULTISAR: A Multi-Species Conservation Strategy For Species at Risk in the Grassland Natural Region of Alberta 2010 – 2011, Rumbolt et al., March 2011.
- Presentation to the Lethbridge Naturalist Society – MULTISAR, Francois Blouin, Lethbridge, Alberta, January 2011.
- Presentation to Friends of Fisk Creek Park – MULTISAR, Francois Blouin, Calgary, Alberta, November 2010.
- Presentation at the Native Prairie Restoration and Reclamation Workshop – Native Grassland Restoration in SE Alberta, Emily Wesley, Regina, Saskatchewan, February 2011.
- Maintained and updated MULTISAR website (www.multisar.ca).
- *Grassland Gazette* Newsletter. August 2010.
- Article in the *Taber Times* – Species at Risk Conservation Plans, Francois Blouin, November 2010.
- Presentation to the Range Management Working Group – MULTISAR, Brandy Downey Sandstone Ranch, Alberta, October 2010.
- Article about the prairie rattlesnake release written for the Government of Alberta *Mirror* (internal newsletter). Francois Blouin, September 2010.
- Report – Alberta Species At Risk, Program and Projects 2008 – 2011. Alberta Sustainable Resource Development, Fish and Wildlife Division, 2010.

Literature Cited

Adams, B.W., G. Ehlert, C. Stone, M. Alexander, D. Lawrence, M. Willoughby, D. Moisey, C. Hinz, A. Burkinshaw, and J. Carlson. 2005. Rangeland health assessment for grassland, forest, and tamed pasture. Public Lands Division, Alberta Sustainable Resource Development. Pub. No. T/044.

Alberta Sustainable Resource Development. 2010. Sensitive species inventory guidelines. Alberta Sustainable Resource Development, Fish and Wildlife Division. Edmonton, Alberta. 69 pp. Available online: http://srd.alberta.ca/ManagingPrograms/FishWildlifeManagement/documents/SensitiveSpeciesInventoryGuidelines-Aug2010.pdf

Downey, B.A., and P.F. Jones. 2010. Monitoring and Evaluation. Pages 31-38. *In:* F. Blouin, 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 2009 – 2010 Report. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 135, Edmonton, Alberta. 71 pp.

James, J.D. 2002. A survey of short-horned lizard (*Phrynosoma hernandesi hernandesi*) populations in Alberta. Alberta Sustainable Resource Development, Fish and Wildlife

Division, Alberta Species at Risk Report No. 29. Edmonton, Alberta. 25 pp. http://srd.alberta.ca/BioDiversityStewardship/SpeciesAtRisk/ProgramReports.aspx

Kendell, K. 2002. Survey protocol for the northern leopard frog. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 43, Edmonton, Alberta.

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

Photos:

Installing temporary fence around newly reseeded area. (Photo: Julie Landry-DeBoer)

MULTISAR range transect on Silver Sage Property. (Photo: Carla Koenig)

Ferruginous hawk young. (Photo: Adam Moltzahn)

Milk River Watershed. (Photo: Carla Koenig)