

Stewards of Saskatchewan

Editors: Emily Putz, Kaytlyn Burrows, Shirley Bartz, & Melissa Ranalli



A Hawk's-Eye View: How to Catch the Attention of a Ferruginous Hawk



Shirley Bartz, Habitat Stewardship Coordinator,
Nature Saskatchewan

Ferruginous Hawks (*Buteo regalis*) nest in Saskatchewan grasslands, and are the largest species of hawk in North America. Their size and striking white belly and tail, as well as their reddish leg feathers make them conspicuous to people whose eyes are on the skies.

Others who see Ferruginous Hawks may notice them because they specialize in killing and eating Richardson's Ground Squirrels (i.e. gophers). A family of these hawks can eat as many as 500 gophers in one nesting season, acting as a built-in pest control for pastures that have a pair. Like many other predators, Ferruginous Hawks' reproductive success fluctuates with the number of gophers available as food. Although Ferruginous Hawks may seem abundant in some years, most suitable habitat is already occupied by a breeding pair, so keeping track of nesting pairs is important.

Ferruginous Hawks have been a target species for the Stewards of Saskatchewan banner program since 2010, when they were listed as a Threatened species on Schedule 1 of the Species At Risk Act.

In 2018, the Saskatchewan Ministry of Environment and the Saskatchewan Conservation Data Center organized an extensive survey for Ferruginous Hawks. With the help of a network of volunteers, including Nature Saskatchewan's Stewards of Saskatchewan (SOS) staff, 160 survey routes were completed to locate Ferruginous hawk nests across southern Saskatchewan.

In April 2019, Stewards of Saskatchewan staff also took part in the second phase of this project by meeting with 20 landowners to discuss nests observed on their land, and to learn if they would be willing to keep track of Ferruginous Hawk activity in the future. Stewards of Saskatchewan staff sent an additional 83 letters to landowners mentioning the presence of a hawk nest observed on

Stewards of Saskatchewan is a suite of voluntary stewardship programs delivered by Nature Saskatchewan:

Operation Burrowing Owl

Rare Plant Rescue

Shrubs for Shrikes

Plovers on Shore

Stewards of Saskatchewan

We work with landowners and land managers to conserve prairie habitat and monitor species at risk.

Through these programs, 941 stewards are conserving over 470,000 acres (190,000 hectares) of prairie and 145 miles (233 km) of shoreline habitat for species at risk and other prairie species.

their land, providing species information, and an invitation to participate in the Stewards of Saskatchewan banner program.

One way to improve habitat for Ferruginous Hawks is to construct a nest platform on your land. In 2009, the Alberta government did a study of 149 existing artificial nest poles to improve our understanding of how to attract Ferruginous Hawks. In their online brochure for Artificial Nest Platforms, the Alberta Conservation Association summed up the findings of the government study with these

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Ask us about our Buffaloberry seedlings!



Photo credit: Matt Lavin

Shrubs for Shrikes Program Increases to 270 Participants!



Shirley Bartz, Habitat Stewardship Coordinator, Nature Saskatchewan

Thanks to our hard-working summer students, Grace Schaan and Joshua Christiansen, the Shrubs for Shrikes (SFS) program had a very successful summer. Joshua and Grace discussed the SFS program with 35 potential participants and talked about what it would mean to join this program. Of these 35 landowners, 30 joined the SFS program! These landowners are conserving habitat and monitoring Loggerhead Shrike adults, nests, and young on 7,199 acres of land!

We were also able to visit with 22 of our existing participants and always enjoy hearing stories of other wildlife in the area, how the crops and cattle are doing this year, and of course, stories of gory impalements never get old. Thanks to the interest and willingness of some very helpful individuals in Saskatchewan, Shrubs for Shrikes now has 270 participants conserving almost 81,930 acres for Loggerhead Shrikes. We want to take this opportunity to thank everyone that welcomed us onto their property; your kindness and hospitality is the high point of our year.

First created in 2008 and recently updated, Beneficial Management Practice (BMP) plans for Loggerhead Shrikes provide information on shrike identification, habitat and life cycle. This year, we handed out BMP plans and discussed how the booklet can help landowners distinguish preferred shrike habitat. During our landowner visits, we paged through the BMP descriptions of land practices that are beneficial for shrikes, that do not negatively affect agricultural operations. We distributed 19 copies of this plan over the summer and they were well received.

The census of Shrubs for Shrikes participants is 37% complete, with more



Loggerhead Shrike; Photo credit: Kim Mann

observations trickling in every week. So far, SFS participants have reported 92 Loggerhead Shrikes, which included 28 pairs, 25 single adults, and 11 young. Public sightings and calls to Nature Saskatchewan's HOOT Line had a slightly lower number of people reporting shrike sightings. Of these 67 shrike sightings, 58 were adults (some in pairs) and 9 of the sightings were identified as nestlings or juveniles.

Summer staff conducted our annual SFS grid road search across 10 days looking for Loggerhead Shrikes in the Arm River/Eyebrow Plain area. In addition to our annual Shrubs for Shrikes grid road search, Nature Saskatchewan staff collaborated with the federal Loggerhead Shrike Recovery Team by conducting 3 formal surveys for shrikes in designated areas visited once every five years.

Thank You to Our Stewards!

We dedicate the Stewards of Saskatchewan newsletter to you, our stewards. Collectively, your individual actions to conserve habitat are of great importance, not only for species at risk and other native plants and animals, but for a healthy prairie. Your appreciation and understanding of the natural world will ensure its beauty and function is preserved for future generations. Thank you for your continued dedication and commitment—without your support our programs would not be possible. Nature Saskatchewan is proud to work alongside you!

Shirley Bartz, Shrubs for Shrikes, Plovers on Shore, and Stewards of Saskatchewan Banner Program Coordinator

Shirley Bartz was born and raised far from the Prairies, but her love of the grasslands grows each year and she and her family now call Saskatchewan home. With a B.Sc. in wildlife management, an M.Sc. in biology and nearly 20 years of fieldwork under her belt, Shirley is happy to put this experience to work connecting with landowners through Nature Saskatchewan's stewardship programs. Shirley has been in the Habitat Stewardship Coordinator position since April 2019 and is really enjoying all aspects of the work! Her favourite part of the job is talking with landowners about wildlife they have seen on their land and how to ensure that those species continue to find the habitat they need. Whether it's shorebirds or shrikes, hawks or butterflies, frogs or salamanders in wetlands, uplands, barnyards or basements, Shirley loves listening to stories and talking with people about ways to keep our prairie ecology healthy for a diversity of native species. Shirley is looking forward to fall and winter engagement activities with landowners and hopes to continue working with Nature Saskatchewan long into the future.



During our field season, we also conducted landowner visits on land designated as critical habitat for Loggerhead Shrikes in the southwestern corner of Saskatchewan.

We look forward to the final results of our participant census, and to see what next summer holds for the Shrubs for Shrikes Program!

If you would like more information about Shrubs for Shrikes, or would like to report a species at risk sighting, please call 306-780-9832 or 1-800-667-HOOT (4668) toll-free, or email outreach@naturesask.ca.

...Hawk's-Eye View, continued from page 1

suggestions:

Location: choose a place where there is;

- Native prairie (grasslands unbroken by the plow) -making up at least 50% of the area;
- Prey (gophers)- present in abundance throughout the growing season;
- Distance from other nest sites - at least 800 m (half a mile) from other possible nest sites such as cliffs, trees and other artificial platforms;
- Peace and quiet – Although they are often spotted nesting in sub-optimal habitat, Ferruginous Hawks prefer nest sites 1000 metres from roads, power lines, oil and gas developments, or farmyards;
- No other species at risk – Installing an artificial nest pole near a Burrowing Owl or Swift Fox den could be very detrimental to those equally sensitive species, it is important to leave a 800 m buffer between the species.

Timing: Install nest poles after July 31st and before March 15th, to avoid the breeding period of Ferruginous Hawks and other sensitive prairie species.

Landowners interested in conserving habitat for Ferruginous hawks can become participants in Nature Saskatchewan's Stewards of Saskatchewan banner program, joining a community of 162 other participants

conserving ~83,000 acres of habitat and monitoring Northern Leopard Frogs, Barn Swallows, Monarch Butterflies, Sprague's Pipits, American Badgers, and other rare species in our grassland communities.

If you have seen nesting Ferruginous Hawks or have them nesting on your land, or if you have questions about the species, please contact me at outreach@naturesask.ca

Native Prairie Appreciation Days honoured at Chico Hills

Irene Nowosad, Landowner, Rare Plant Rescue and Stewards of Saskatchewan Participant

Neighbours gathered at Chico Hills range, north of Shell Lake, to recognize and acknowledge the value of preserving native prairie land, just as it is – undisturbed by the plough. Since the fall of 2000, Chico Hills has been involved in and contributed to the Stewards of Saskatchewan programs – conserving, managing, and maintaining this parcel of natural land for the conservation of Saskatchewan's prairie heritage. On the property between June 21 to 23, guests enjoyed fellowship, beautiful trails, and a tasty fish fry while listening to music in the warmth of the sunshine.

Since 1999, Native Prairie Appreciation Week falls annually on the third week of June. The week is dedicated to raising and promoting awareness among the general public of conserving natural grasslands in Saskatchewan. Events held on native prairie throughout the province contribute to this goal.

Native prairie is a community of grasses, flowers, shrubs, etc., that have evolved together for thousands of years. The many kinds of plant species combine their strengths and become an adaptive and resilient community- surviving and flourishing in the extreme weather conditions of the prairies. The many varied species (100 within an acre) fluctuate in numbers in response to the environmental conditions; the secret of this resilience is in its roots. Much of native prairie plant life is below the ground – complex root systems that reach deep protect the integrity of the soil.

“Roots in this soil are roots with our past.”

Native Prairie is a threatened ecosystem. There is not much of this wild and varied community remaining, as home to wildlife, as ground cover, or as part of the charm and subtle beauty of the country side. Native prairie is a valuable resource. It contains our ecological history and is the heritage of our province. If we lose native prairie, we lose the mix of prairie plants and animals that are unique to the prairie grasslands. These species are the product of thousands of years of evolution and that richness can never be replaced. The interdependent tapestry of plant and animal life, that natural diversity that once shaped and maintained the prairie ecosystem, is all but gone. Native prairie needs you, as a landowner, to step in, and step in now.

Funding Available for Habitat Enhancement Projects

Nature Saskatchewan's Habitat Enhancement program offers 50:50 cost-sharing opportunities for eligible landowners to improve habitat for Burrowing Owls, Piping Plovers, and Sprague's Pipits. Eligible projects include native grass seeding, alternative water developments, and wildlife friendly fencing!

For more information or to apply for funding, please contact Nature Saskatchewan at obo@naturesask.ca or toll-free at 1-800-667-4668.



Sandy Summer Sleuthing for the Rare Plant Rescue Crew

Emily Putz,, Habitat Stewardship Coordinator, Nature Saskatchewan

As the fall frost sets in and RPR wraps up for another year, we celebrate once again a very successful field season! With a full searching and monitoring crew we were able to focus our efforts this year on seven federally listed plant species at risk: Slender Mouse-ear-ress, Small-flowered Sand-verbena, Western Spiderwort, Smooth Goosefoot, Tiny Cryptantha, Hairy Prairie-clover, and Buffalograss. Many of these species can be found living in sand dune areas, which meant the summer was spent emptying our hiking boots of sand while enjoying some of the most majestic views of Saskatchewan.

We surveyed a whopping 72 quarter sections this summer for new occurrences of rare

quarter sections for previously detected plants. The star of our monitoring work this year was definitely Hairy Prairie-clover. We revisited a site that was last visited in the first year of our program way back in 2002, and we were thrilled to see that the plants were still growing strong with 530 individuals detected! While there, my assistant Michelle and I were also treated to an amazing late summer display of blooming purple Blazing Star and yellow asters stretching as far as the eye could see!

As usual, another highlight of our summer is always the people we meet along the way. Our stewards show their passion for their land in everything they do and it was lovely to visit with 25 different landowners this season. We are so happy to give a great big thank you to our current program participants and a giant welcome to six newly signed landowners! These landowners join 76 others in RPR to conserve over 145,000 acres of rare plant



The flowers of the threatened Western Spiderwort bloom for only a few short hours each day. Searches during this time have the highest detectability. Photo credit: Emily Putz



The sand dune capital of Canada, Saskatchewan is home to both the country's largest and second largest active sand dunes—remnants of massive, ancient glacial lakes. Many at risk species call this unique habitat their home. Photo credit: Emily Putz

plants, the majority of which were shoreline searches for one of my favourite plants- Small-flowered Sand-verbena. Much of our work this summer was in Douglas and Saskatchewan Landing Provincial Parks, done in partnership with the Ministry of Parks, Culture, and Sport. We were very appreciative of the opportunity to work with them, and had a blast searching the sand dunes of Douglas for the very beautiful Western Spiderwort blooms. During our survey work, we counted over 5,000 individual plants of this species! This plant's flowers are bright blue to pink and open very early in the morning before closing in the heat of the day. This meant lots of very early summer mornings, amazing sunrise views, and encounters with wildlife also enjoying the peaceful mornings. Our work in both parks was very successful with many new occurrences of Sand-verbena, Smooth Goosefoot and Western Spiderwort, and several occurrences of the provincially rare Small Lupine found as well.

Our monitoring work this summer was also successful; we revisited the populations of 18 different

habitat! I personally would also like to give a big thank you to my crew this summer; thank you to Michelle Lang, Natanis Kuster, and Levi Boutin. It wouldn't have been possible without your hard work!

If you or others have questions about the Rare Plant Rescue program please don't hesitate to get in touch with me by phone at (306) 780-9417 or through email at rpr@naturesask.ca. 🐦

Pollinator Sanctuaries: A New Concept for Bee Conservation

Saikat Basu, Researcher, University of Lethbridge

Native insect pollinators around the globe are demonstrating an alarming decline due to over application of toxic pesticides, high levels of air, water and soil pollution, climate change, an increase in the spread of parasitic diseases, colony collapse disorder, lack of nectar -producing plants and suitable habitats, rapid transformation in our land use, and aggressive industrial agricultural policies and practices. Conservation of native insect pollinators is important from the perspective of agriculture, apiculture and forestry, as they are responsible for pollinating several important food and industrial crops. There is a

Emily Putz, Rare Plant Rescue Coordinator

Hello Everyone! I have always loved nature and though I grew up in the city, most of my spare time has always been spent outdoors. I am so thankful to have grown up surrounded by the beauty of Saskatchewan's prairies and the unique species that make it their home! I first started working for Nature Saskatchewan as a Summer Assistant while I was still a student in 2014 and instantly knew that it was a place I would strive to come back to in the future. I graduated from the University of Regina in 2015 with a degree in biology, with concentration in ecology and environmental biology. I have had the great opportunity to work with a number of different species throughout my short career, mainly species at risk, and in late 2016 was lucky enough to be hired as a Habitat Stewardship Coordinator for RPR. Since my initial term as RPR coordinator, I've worked in a variety of positions with Nature Sask including Database Tech, RPR assistant, OBO Coordinator, and I'm very happy to once again coordinate RPR. It's been so wonderful to meet many of you and I hope to connect with more in the years to come!



dire need for comprehensive conservation efforts to save honey bees and the dwindling populations of native bees that have declined over the decades; they need our earnest support and initiative for their survival. We need to acknowledge the fact that large numbers of global food and industrial and/or commercial crops, forages, wildflowers, ornamentals, vegetables, and forest plant species are exclusively dependent on natural biological agents of cross pollination for their successful reproduction and hence help in sustainable crop production. The significant loss of crops across the planet due to lack of suitable insect pollinators, like bees for natural pollination services, is a serious threat to maintaining the balance of our natural ecosystems and safe guarding our global economy. Therefore, the loss of insect pollinators, like bees, can have serious negative impacts on our global ecology and economy.

Recently, Farming Smarter, an applied research organization from southern Alberta, Canada has initiated a new experimental model in the successful conservation of local insect pollinators with special emphasis on honey bees and native bees. The project has been funded by the prestigious Canadian Agricultural Partnership (CAP) program. This new technology highlights the importance of using various combinations of local annual/perennial crops and wildflowers with overlapping flowering periods to establish pollinator sanctuaries and attract local insect pollinators. The experimental plots get no irrigation, fertilizer, or pesticides throughout the experiment.

The results strongly favour use of annual/perennial crop mixes with different overlapping flowering periods; to successfully extend bee foraging periods with an adequate supply of nectar and pollen. Such multi crop-based pollinator sanctuaries can help establish small local ecological niches, conserve insect pollinators and enrich local biodiversity, serve as grazing pastures or cover crops, and help in soil reclamation/prevent soil erosion. This new economical model with low cost, low maintenance, and high return with respect to establishing local pollinator sanctuaries, to conserve pollinator insects with special emphasis to honey bees and native bees, could serve as a model for Saskatchewan too. Such pollinator sanctuaries as demonstrated by the CAP funded Farming Smarter project could be easily established on non-agronomic or hard to access areas of the crop fields, farm perimeters, shelter belts, unused areas in rural and urban areas, along irrigation canals or local water bodies or on low lying or salinity impacted areas. 🐦



In addition to native bees and honey bees, other insect pollinators have been found to visit the pollinator sanctuary plots in large numbers throughout the growing season. Photo credit: Saikat Basu.

Vern Harms Important Plant Areas of Saskatchewan

Chet Neufeld, Executive Director, Native Plant Society of Saskatchewan & Ashley Vass, Habitat Stewardship Coordinator, Nature Saskatchewan

Although you don't hear much about them, plants are among the most rare and threatened species, but are often overlooked when it comes to conservation. A new program being managed by the Native Plant Society of Saskatchewan (NPSS), and facilitated by the Saskatchewan Conservation Data Centre and the Botanical Assessment Working Group (BAWG), is helping to combat the fact that plants are often left in the shade. The Vern Harms Important Plant Areas (IPAs) of Saskatchewan program is shining a light on important habitats in the province, supporting native plant species and plant diversity.

The IPA designation was first developed in the early 2000s by the organization PlantLife International. IPAs represent a region's most significant places for native plant and fungal species. Originally developed for use throughout Europe, it has since been accepted around the globe but has only recently been implemented in Canada.

“There are many areas within Saskatchewan supporting rare plant species and unique community assemblages that are worthy of the IPA title” says Chet Neufeld, Executive Director of the NPSS.

“The NPSS is excited to announce the local implementation of this international designation”, making Saskatchewan the first province in Canada to designate sites as IPAs, “and we are very glad that we are able to honour Vern Harms,” adds Neufeld, “as Vern is one of the province's preeminent botanists.”

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Two Native Grassland Workshops Under One Roof in Regina

Carolyn Gaudet, Manager, Prairie Conservation Action Plan

The Saskatchewan Prairie Conservation Action Plan (SK PCAP) is looking forward to hosting the 7th Native Prairie Restoration and Reclamation Workshop (NPRRW), in conjunction with the 5th Transboundary Grassland Partnership Workshop on February 25-27, 2020, in Regina, SK at the Ramada Plaza.

This event marks the seventh time that SK PCAP has hosted the forum that brings together diverse stakeholders who have an interest in prairie and species habitat restoration and reclamation. This is the first time SK PCAP has hosted the Transboundary Grassland Partnership Workshop, and combining the two events has been an interesting challenge. For those who are not familiar with the Transboundary Grassland Partnership, it provides a forum where transboundary (Saskatchewan, Alberta and Montana) jurisdictions and sectors work collaboratively to conserve and enhance native grassland landscapes.

Attendees, including scientists, academics, researchers, ranchers, communicators, and naturalists, will participate in sessions that address tools for restoration, soil health, invasive weed strategies, prescribed burning, native seeds, bison reintroduction and partnerships, among others. Prairie restoration, reclamation, and management practices continue to shift and evolve as does land use and development. Many experts from across the Canadian prairies and northern United States will be sharing their collective experiences and knowledge. The workshop theme is "The Big Picture: Planning and Partnerships" and SK PCAP is anticipating

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Dotted Blazing Star; Photo credit: Emily Putz

3 Billion Birds: New Study Finds Canada and U.S. Have Lost More Than One in Four Birds in the Past 50 Years

Rosenberg, K. V., A. M. Dokter, P. J. Blancher, J. R. Sauer, A. C. Smith, P. A. Smith, J. C. Stanton, A. Panjabi, L. Helft, M. Parr, and P. P. Marra

Data show that since 1970, the U.S. and Canada have lost nearly 3 billion birds, a massive reduction in abundance involving hundreds of species, from beloved backyard songbirds to long-distance migrants.

A study published recently in the journal *Science* reveals that since 1970, bird populations in the United States and Canada have declined by 29 percent, or almost 3 billion birds, signaling a widespread ecological crisis. The results show tremendous losses across diverse groups of birds and habitats — from iconic songsters such as meadowlarks, to long-distance migrants such as swallows, and backyard birds including sparrows.

“Multiple, independent lines of evidence show a massive reduction in the abundance of birds,” said Ken Rosenberg, the study’s lead author and a senior scientist at the Cornell Lab of Ornithology and American Bird Conservancy.

“We expected to see continuing declines of threatened species. But for the first time, the results also showed pervasive losses among common birds across all habitats, including backyard birds.”

The study notes that birds are indicators of environmental health, signaling that natural systems across the U.S. and Canada are now being so severely impacted by human activities that they no longer support the same robust wildlife populations.

The findings show that of nearly 3 billion birds lost, 90 percent belong to 12 bird families, including sparrows, warblers, finches, and swallows — common, widespread species that play influential roles in food webs and ecosystem functioning, from seed dispersal to pest control.

“These data are consistent with what we’re seeing elsewhere with other taxa showing massive declines, including insects and amphibians,” said co-author Peter Marra, senior scientist emeritus and former head of the Smithsonian Migratory Bird Center and now director of the Georgetown Environment Initiative at Georgetown University. “It’s imperative to address immediate and

ongoing threats, both because the domino effects can lead to the decay of ecosystems that humans depend on for our own health and livelihoods — and because people all over the world cherish birds in their own right. Can you imagine a world without birdsong?”

Evidence for the declines emerged from detection of migratory birds in the air from

143 NEXRAD weather radar stations across the continent in a period spanning over 10 years, as well as from nearly 50 years of data collected through multiple monitoring efforts on the ground.

“Citizen-science participants contributed critical scientific data to show the international scale of losses of birds,” said co-author John Sauer of the U.S. Geological Survey (USGS). “Our results also provide insights into actions we can take to reverse the declines.” The analysis included citizen-science data from the North American Breeding Bird Survey coordinated by the

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Grassland Birds

MAJOR DECLINES SINCE 1970

There are very few remaining native grasslands in North America. Grassy livestock pastures can help fill the void if managed properly, but crop agriculture and development continue to eat away at grasslands.

720
MILLION
GRASSLAND BIRDS
LOST SINCE 1970

POPULATION LOSS



GRASSLAND BIRDS
HAVE SUFFERED A

-53%

POPULATION LOSS
SINCE 1970

Eastern Meadowlark
Sturnella magna

3 IN 4

EASTERN MEADOWLARKS GONE



Eastern Meadowlark by S. Queen/Macaulay Library, Prairie Grasslands by Joshua Meyer/Creative Commons

...IPAs, continued from page 5

Anyone can nominate a site for IPA status by filling out a nomination form and submitting it to the NPSS. Following submission, nominated sites will be reviewed by an expert committee twice a year. Sites must meet certain criteria, which are indicated on the form, and a detailed scoring sheet is also readily available online. Designated sites will be made public; however, sensitive species information will not be released in detail, nor will locations of private land with IPA designations, unless permitted by the landowner.

“Although an IPA designation holds no legal restrictions, our hope is that it will encourage extra consideration regarding potential development and management decisions” explains Neufeld, “and possibly even enable funding opportunities for land managers to improve the area through beneficial management actions.”

For more information or to nominate an area as an IPA, please visit the Vern Harms Important Plant Areas of Saskatchewan program page at www.npss.sk.ca/news-and-events/projects/292 or contact the Native Plant Society of Saskatchewan at info@npss.sk.ca. 🦇

Going the Distance: Saskatchewan’s Migratory Bats

Dana Green, Mammal Ecologist, PhD Student, University of Regina

When one pictures a colony of bats, a cave is usually a common scene. However, some of the bats that can be found in Saskatchewan are tree roosting and migratory. There are eight species of bats found in Saskatchewan, three of which are considered to be highly migratory: the Hoary Bat, Eastern Red Bat, and Silver-haired Bat. The Hoary Bat (*Lasiurus cinereus*) demonstrates the longest migration of any Canadian bat, capable of moving over 1,000 km one way!

In the summer, Hoary Bats and Silver-haired Bats (*Lasionycteris noctivagans*) are common in the Cypress Hills. When they begin their migration in early spring from over-wintering locations, they are already pregnant and fly long-distances to Cypress Hills to have their pups. In the Cypress Hills, Silver-haired Bats roost in small colonies inside crevices of aspen trees where they have their pups and forage along creeks and in fields. Hoary Bats, interestingly, roost solitarily hidden in the branches of spruce trees. Each of these species are well known for having twins, while other non-migratory bats more commonly have a single pup. As the



Photos top to bottom: Hoary Bat (highly migratory); Silver-haired Bat (partial migrant); Little Brown Bat (regional migrant). Notice the differences between the wing shapes and sizes of migratory vs. non-migratory bats. Photo credits: Dana Green.

summer comes to an end in August, both Hoary and Silver-haired Bats begin to migrate out of the area.

Dana Green, mammal ecologist and PhD student at the University of Regina, has spent two summers in the Cypress Hills studying the migratory bats. She is interested in migratory behaviours and the differences between non-migratory and migratory species. Currently, she is exploring the differences between wing shapes and how that relates to whether a bat is migratory or not. Over the course of her PhD, she also aims to demonstrate the ability of bats to determine the direction for migration, possibly indicating where migratory routes are located.

Erin Swerdfeger, MSc. student at the University of Regina, has been determining potential pathways used by bats during their autumn migration. She has been using acoustic detectors scattered across Saskatchewan to record bats as they migrate through the area. She is hoping to identify landscape features that bats use, potentially as visual aids during migration.

Migratory bats are a current topic in conservation because of the growing wind energy industry. Just like migratory birds, many bats are killed every year by wind turbines. Each of the migratory bats in Canada

are now listed as species of “high concern” by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) because they may be at risk of extinction. In Saskatchewan, wind energy continues to grow, spurring collaboration between researchers, government, and industry. Through continued collaboration and research, the knowledge of migratory bat behaviour and migratory corridors will help inform conservation decisions while also allowing the wind energy sector to continue to grow. 🦇

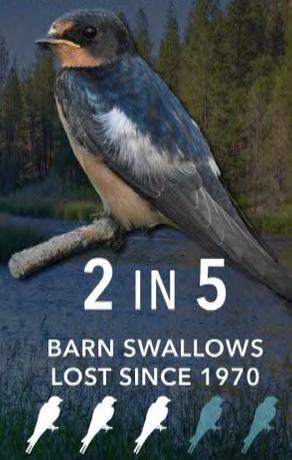


Hoary & Silver-haired Bat; Photo credit: Dana Green

Aerial Insectivores

160 MILLION
AERIAL INSECTIVORES
BIRDS LOST
SINCE 1970

-32%
POPULATION
LOSS IN AERIAL
INSECTIVORES
SINCE 1970



birds elsewhere in the world, suggesting multiple interacting causes that reduce breeding success and increase mortality. It noted that the largest factor driving these declines is likely the widespread loss and degradation of habitat, especially due to agricultural intensification and urbanization.

Other studies have documented mortality from predation by free-roaming domestic cats; collisions with glass, buildings, and other structures; and pervasive use of pesticides associated with widespread declines in insects, an essential food source for birds. Climate change is expected to compound these challenges by altering habitats and threatening plant communities that birds need to survive. More research is needed to pinpoint primary causes for declines in individual species.

“The story is not over,” said co-author Michael Parr, president of American Bird Conservancy. “There are so many ways to help save birds. Some require policy decisions such as strengthening the Migratory Bird Treaty

Among the steep declines noted:

- Grassland birds were especially hard hit, with a 53-percent reduction in population — more than 720 million birds — since 1970.
- Shorebirds, most of which frequent sensitive coastal habitats, were already at dangerously low numbers and have lost more than one-third of their population.
- The volume of spring migration, measured by radar in the night skies, has dropped by 14 percent in just the past decade.

Act. We can also work to ban harmful pesticides and properly fund effective bird conservation programs. Each of us can make a difference with everyday actions that together can save the lives of millions of birds — actions like making windows safer for birds, keeping cats indoors, and protecting habitat.”

The study also documents a few promising rebounds resulting from galvanized human efforts. Waterfowl (ducks, geese, and swans) have made a remarkable recovery over the



...3 Billion Birds Lost, continued from page 6

USGS and the Canadian Wildlife Service — the main sources of long-term, large-scale population data for North American birds — the Audubon Christmas Bird Count, and Manomet’s International Shorebird Survey.

Although the study did not analyze the causes of declines, it noted that the steep drop in North American birds parallels the losses of

Sask Swallows: Know Your Aerial Acrobats!



Cliff Swallow
Petrochelidon pyrrhonota

Body & Colouration: Largest swallow species. Compact body with small head. Blue black backs, red–orange rumps and throats with a bright buff triangular spot on crown.

Wing & Tail: Rounded broad wings and a medium length, squared tail.

Social: Most colonial swallow in the world, colonies of 200-3,000 nests.

Nesting: Makes a gourd-shaped mud pellet nest. Commonly nests on the underside of bridges and overpasses near open water.



Barn Swallow
Hirundo rustica



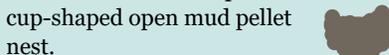
STATUS: THREATENED

Body & Colouration: Flattened head and broad shoulders. The brightest of the swallows, rich cobalt blue back and head, tawny belly with a darker bright throat.

Wing & Tail: Long, pointed wings and a deeply forked tail unique to this species.

Social: While several pairs can nest in an area, males are highly territorial and will chase other encroaching males.

Nesting: Nests exclusively on man-made structures. The pair will build a cup-shaped open mud pellet nest.



Bank Swallow
Riparia riparia

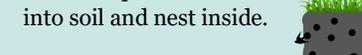
STATUS: THREATENED

Body & Colouration: Smallest swallow species. Has a chunky body with a large head. White belly with brown back, head, and wide neck band.

Wing & Tail: Short, broad pointed wings, and a short slightly forked tail.

Social: Colonial species that can have colonies of up to 2,000 nests.

Nesting: Nest in banks, sandy cliffs, gravel and sand pits near water bodies. A pair will burrow into soil and nest inside.



Tree Swallow
Tachycineta bicolor

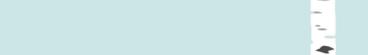


Body & Colouration: Streamlined body. Deep cobalt blue back and head with a bright white chest and black eye mask.

Wing & Tail: Long pointed wings, and a notched squared tail.

Social: Very social and will nest near other pairs. Form large migratory flocks.

Nesting: nest in natural tree cavities, old woodpecker nests, and nest boxes.



Left to right: I. Taylor, D. Debold, K. Miyamoto, R. McColloch, (co), K. Billington, (co), T. Shackton

Courtesy of the Cornell Lab of Ornithology. Source: Science, 2019

past 50 years, made possible by investments in conservation by hunters and billions of dollars of government funding for wetland protection and restoration. Raptors such as the Bald Eagle have also made spectacular comebacks since the 1970s, after the harmful pesticide DDT was banned and recovery efforts through endangered species legislation in the U.S. and Canada provided critical protection.

“It’s a wake-up call that we’ve lost more than a quarter of our birds in the U.S. and Canada,” said co-author Adam Smith, Environment and Climate Change Canada. “But the crisis reaches far beyond our individual borders. Many of the birds that breed in Canadian backyards migrate through or spend the winter in the U.S. and places farther south — from Mexico and the Caribbean to Central and South America. What our birds need now is an historic, hemispheric effort that unites people and organizations with one common goal: bringing our birds back.” 🐦

A Soggy Summer and Uncertain Winter for Piping Plovers



Shirley Bartz, Habitat Stewardship Coordinator, Nature Saskatchewan

Piping Plovers have had marked periods of cool and wet weather this summer through much of their Saskatchewan breeding range. Although the precipitation in southern Saskatchewan has been about average, some areas were very dry, while others experienced torrential rains. Though Nature Saskatchewan’s Plovers on Shore program is still gathering the census data for 2019, reports from nearby Ontario plover populations are encouraging. Bird Studies Canada reported the Great Lakes breeding population has increased from 67 pairs in 2018 to 71 pairs in 2019.

Atlantic hurricane season runs from June 1 to November 30, and includes the Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea. Piping Plovers overwinter along the coasts of the Gulf of Mexico, southeastern United States, and the Caribbean islands. Hurricane Dorian has devastated the Bahamas, and while our hearts are with the families of the missing people, we are also wondering how hundreds of species of birds will fare as they overwinter in the wake of its path.

Despite that destructive storm, numbers of plovers counted by participants in Nature Saskatchewan’s Plovers on Shore program are looking good. With about two thirds of participants responding so far (reporting on



Piping Plover; Photo credit: Annie McLeod

60% of the total number of sites), 5 pairs, 5 young, and 4 single adult Piping Plovers have been reported through the census and HOOT line calls from public citizens.

We are so grateful that landowners are willing to learn about, monitor, and protect this endangered species and are very happy to welcome four new participants to the program. There are now 67 landowners conserving 145 miles of Saskatchewan shoreline for Piping Plovers. Saskatchewan is a very important part of the Piping Plover breeding range, and with hurricane-related havoc on their wintering grounds, we can’t be thankful enough to have the support of landowners looking after Piping Plovers and their habitat.

It is worth noting that hurricanes are not all bad news for plovers. They can smooth beaches and remove overgrowth and other vegetation that plovers avoid, potentially creating more Piping Plover habitat, as long as they’re still around to enjoy it.

If you would like more information about Plovers on Shore, or would like to report a species at risk sighting, please call 306-780-9832 or 1-800-667-HOOT (4668) toll-free, or email outreach@naturesask.ca. 🐦

Agricultural Drainage and the Environment

Jeff Olson, Citizens Environmental Alliance, Saskatchewan

In less than a single lifetime, we’ve lost almost a third of our bird populations; that’s almost 3 billion birds lost since 1970. These are the findings of the first comprehensive review of avian population trends in the U.S. and Canada. These bird losses are a strong signal that our human-altered landscapes are losing their ability to support birdlife.

One of the main reasons for these declines is the loss of habitat. Whether it is a place to nest, a place to grow up, or a place to rest and refuel, the amount of habitat available is in

decline as we use it and convert it to grow more crops, develop more mines, and expand our cities. While birds belong to society, and are in the public trust doctrine, most of the land and the habitat found on it, is privately owned. So we rely on landowners’ good stewardship to maintain and provide this habitat and the other ecological goods and services that wetlands and native prairie habitat provide. Most farmers and ranchers do this without any compensation but we need to find better ways to reward landowners for providing society with wildlife habitat if we want the decline to stop. Nature Saskatchewan and other conservation organizations have programs to encourage landowners to maintain habitat and information illuminating the benefits of habitats of all kinds, but the losses continue to exceed what is protected.

Water, marshes, lakes, rivers, and wetlands on the other hand are a different story because the provincial government has control over what happens to them. Wetlands themselves provide flora and fauna habitat but also important ecological functions; downstream flood protection, mitigating droughts, carbon sequestration, recharging groundwater, and improving water quality following degradation from fertilizers, pesticides, and sedimentation. The government department entrusted with this “public trust” responsibility is the Saskatchewan Water Security Agency (WSA) and they require nearly every drainage ditch to have a license. However, despite having laws that require this as well as a permit to protect the aquatic habitat, almost all (95-98%) of the drainage and the aquatic habitat loss that occurs happens illegally without any authorization with the loss of wetlands continuing to exceed 10,000 acres annually. To point out the severity of this, WSA estimates that some 16 to 24 million acres of farmland have unapproved drainage works.

To combat the wetland destruction and the impacts to water quality, habitat loss, and

Continued on page 13...



Kaytlyn Burrows, Operation Burrowing Owl Coordinator

For as long as I can remember, I have always had a connection with nature. When I was a kid, growing up in Regina, I would spend every minute I could outside. I remember the struggle my parents had to endure trying to convince me to come in for supper! This connection has led me to who I am today and the focus of my career. I am a Habitat Stewardship Coordinator with Nature Saskatchewan, in particular, I coordinate our longest running stewardship program, Operation Burrowing Owl. I have been in this position since July of 2013. Prior to that, I spent a year as the Office Coordinator, as well as a summer as a member of the Rare Plant Rescue search and monitoring crew. I graduated from Lakeland College in 2012 with an Environmental Science Diploma in Conservation and Restoration Ecology and I recently returned to school and am (slowly) working towards my B.Sc. in Environmental Biology from the University of Regina. I am incredibly fortunate to love what I do and I hope I can continue to share my passion for nature, the prairies, and conservation!

Burrowing Owls, We're Hooting For You!



Kaytlyn Burrows, Habitat Stewardship Coordinator, Nature Saskatchewan

Every year, I have the same feeling of how fast summer seems to go by and this year is no exception. This summer was a busy one filled with many landowner visits to discuss Burrowing Owls and Operation Burrowing Owl (OBO), how the owls are faring, and what landowners can do to help attract owls, among other topics. We had a very successful field season with many accomplishments. With the help of our two Habitat Stewardship Assistants, Joshua Christiansen and Grace Schaan, we were able to visit with 32 of our current program participants and 15 potential program participants, with 11 of them joining the program. We extend a very warm welcome to our new participants!

OBO currently has 361 participants conserving just over 160,000 acres of Burrowing Owl habitat across southern and central Saskatchewan. Unfortunately, the number of reported owls during the annual census is still quite low. We are always optimistic of increasing that number as our participants work so hard to conserve their remaining habitat. The census for 2019 is now

complete (90% response) and participants have reported 13 pairs, 8 singles, and 4 young. Unfortunately, this is a decrease from the reported 16 pairs in 2018.

During the census, we also ask participants to report presence or absence of Richardson's Ground Squirrels (gophers) and badgers. If you're curious as to why, it's because Burrowing Owls highly depend on these animals to provide nesting habitat for them. Burrowing Owls do not actually dig their own burrows. They rely on gophers and badgers to do that work for them. Without the presence of these fossorial mammals, Burrowing Owls have nowhere to nest and will be forced to try and find somewhere else more suitable. We acknowledge and understand there is a delicate balance between the success of your operation and gophers and badgers, and we are always here to help you achieve this!

We have also had several sightings reported through our toll-free HOOT line (1-800-667-4668). Ten members of the public called to report 7 pairs, 4 singles, and 8 young! We continue to encourage people to report Burrowing Owl sightings and I am always so thrilled when I receive one! The toll-free HOOT line is a great and easy way to submit Burrowing Owl sightings (or any other species at risk sightings). Rest assured, your privacy is very important to us and we never share personal information.

We are really excited to have two habitat enhancement projects for Burrowing Owls currently underway! Both projects involve the erection of wildlife-friendly fencing for the purposes of creating native pastures for grazing to improve habitat quality for Burrowing Owls. In total, both projects will be erecting 4.4 miles of fencing and enhancing 420 acres of habitat.

While the field work keeps us pretty busy, we also try to find some time to participate in other events to learn and network with landowners and other professionals. We were fortunate enough to participate in some events this summer and fall such as, the Saskatchewan Chapter of the Wildlife Society's



Young Burrowing Owls have a solid buff-coloured belly, lacking the white mottling colouration of adult owls (left bottom photo). Photo credit: Boyd Coburn

AGM, Earth Month Celebration and Science Literacy Week at the Saskatchewan Science Centre, and Nature Saskatchewan's Spring and Fall Meets. In addition, several presentations were delivered at a variety of events including the Saskatchewan Science Centre, Innovation Place at the University of Regina, and Prairie Conservation Action Plan's Native Prairie Speaker Series.

From all of us at Nature Saskatchewan, I would like to thank our Habitat Stewardship Summer Assistants, Joshua and Grace. It was a pleasure working with you and the successes of this field season and the program would not be possible without all your hard work!

As always, if you have any questions or comments, please do not hesitate to give me a call at (306) 780-9833, toll free on our HOOT line at 1-800-667-4668, or email me at obo@naturesask.ca. I would love to hear from you! 🦉



Photo credit: Boyd Coburn

Ranchers Key in Grassland Conservation for Species at Risk

Tom Harrison, Kelly Williamson, Krista Connick Todd, Melanie Toppi and Diego Steinaker, South of the Divide Conservation Action Program Inc.

Ranchers can play an important role in protecting and restoring grassland critical habitat in southwestern Saskatchewan, where most of native prairie lands are managed for cattle producers. The South of the Divide Conservation Action Program Inc. (SODCAP) is a collaborative partnership of ranchers, government, environmental non-government organizations, and industry, with a goal of implementing actions for biodiversity protection on native prairies.

The SODCAP, in partnership with the Saskatchewan Stock Growers Association (SSGA), provides financial incentives for grassland conservation to ranchers, through a variety of programs and agreements. Habitat Management Agreements, for example, support management plans that improve and maintain critical and important habitats for species at risk. Habitat management plans may include activities such as upholding appropriate stocking rates, improving grazing management, avoiding destructive activities, and monitoring. Producers may be fully compensated for all costs associated with implementing the agreement and any potential lost opportunity.

Results-Based Conservation Agreements are another type of program that SODCAP promotes. In this case, agreements are designed to encourage producers to make management decisions that support habitat for a specific target species - Greater Sage Grouse or Sprague's Pipit, for example. SODCAP's agroecologists work with individual producers to help them meet habitat

- **Badgers are a main burrow provider for many other species, including Burrowing Owls!**
- **Badgers are great for pest control & will eat large numbers of pocket gophers, ground squirrels, and voles throughout the year.**
- **Having multiple burrows doesn't always mean you have multiple badgers. Badgers are solitary and a single badger will dig many burrows before moving on as prey depletes.**
- **Badgers have been known to team up with coyotes to hunt. Both predators benefiting from this hunting strategy.**
- **Prairie badger populations are on a declining trend, the main threats include habitat loss, road mortality, and persecution by humans.**



Photo credit: Maria Anderson

Status: SPECIAL CONCERN

requirements for the target species. In exchange for achieving the desired habitat targets, producers are rewarded with financial incentives. Habitat assessments, management plan reviews, and payments to producers occur on an annual basis.

SODCAP's Habitat Restoration Agreements aim to recreate the grass composition, structure, and function of native prairie on currently cultivated lands. For many species, these parcels of cultivated land beside native prairie create gaps in their movement patterns. Restoring prairie in these areas helps create habitat corridors and allows species at risk to move freely. Native seed mixes are

carefully chosen with the assistance of a SODCAP agrologist, and agreements are generally signed for 21 years. The producer is responsible for seedbed preparation, weed management, and seeding.

More than 220,000 acres are currently under some of these SODCAP agreements, involving 35 individual projects. Annual payments to producers amounted to \$443,000 in the last fiscal period. Producers who own or manage important or critical habitat for species at risk in southwestern Saskatchewan are eligible to sign new agreements.

SODCAP and the SSGA work on many other projects, including integrated weed management projects that focus on Leafy Spurge control on native grasslands and along the Frenchman river; as well as a Grassbank project between local producers and Grasslands National Park, with the goal of creating habitat for multiple species at risk. SODCAP also helps local producers to submit applications for funding to the Farm Stewardship Program (FSP) and the Farm and Ranch Water Infrastructure Program (FRWIP). In 2018-19, 22 FSP and FRWIP applications were submitted to the Ministry of Agriculture for review. Most projects focused on livestock water development to improve grazing management on native prairie, and converting annual cropland to perennial tame grass cover to increase the corridors needed



Ranchers play a key role in native prairie conservation for species at risk. Tim Christianson sustainably manages more than 50,000 acres of Greater Sage-grouse critical habitat in mixed grass prairie in southwestern Saskatchewan. In the photo, Tim is standing next to a wire electric fence with white markers for Greater Sage-grouse to minimize collision. Photo credit: Diego Steinaker.

Species Spotlight: The American Badger
Taxidea taxus taxus

Photo credit: Randy McCulloch

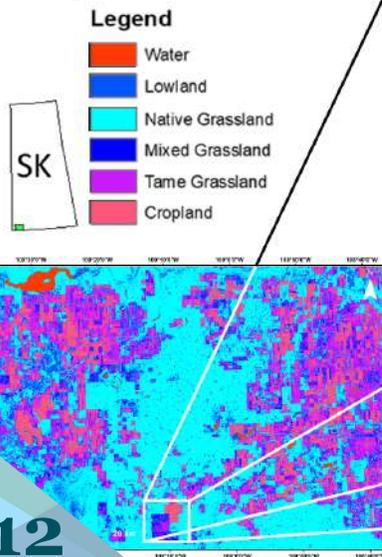
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Using New Technologies to Map Grasslands in Saskatchewan

Nasem Badreldin, Beatriz Prieto, and Ryan Fisher, Fish, Wildlife and Lands Branch, Saskatchewan Ministry of Environment

Similar to other jurisdictions in Canada and the United States, Saskatchewan does not have a reliable map of where native grasslands are currently located in the province. All current landcover mapping products that are available over the entire agricultural region of the province typically lump native and tame grassland types together. The main goals of the Prairie Landscape Inventory (PLI) project are to evaluate new ways to update Saskatchewan's land-cover maps and to map more accurately the location of parcels of native and tame grasslands. We completed a pilot project in the South-of-the-Divide planning region (4,500 km²) to test out different mapping techniques. This region has had significant mapping already completed and was also the focus of Ministry of Environment field work to do further ground vegetation assessments. New technologies such as supercomputers, high resolution satellite information (10 m x 10 m resolution), and advanced statistics have helped the PLI project to successfully build an overall classification model with 90.2% accuracy, which is 7-10% higher than Agriculture and Agri-food Canada (AAFC) land-cover maps of 2016, 2017, and 2018. We also achieved significantly better accuracy compared to the AAFC products at distinguishing pure stands of native and tame grasslands. Grasslands that are some mix of native and tame grasses were more difficult to distinguish.

We are now using the results from this pilot study to map all of the mixed grassland ecoregion in Saskatchewan. We hope that this map will show the accurate spatial locations of native and tame grasslands, with 10 meters of ground resolution, across much of the province.



Saskatchewan's Strategy to Reduce Emissions and Build Climate Resilience

David Stevenson, Director of Climate Change Policy & Planning, Climate Change Branch, Saskatchewan Ministry of Environment

Climate change brings challenges and opportunities for the province – from a changing environment to a growing need for innovation and technology. To address these, the Government of Saskatchewan released Prairie Resilience: A Made-in-Saskatchewan Climate Change Strategy in December 2017, which includes more than 40 commitments designed to make Saskatchewan more resilient to the effects of a changing climate.

As part of the made-in-Saskatchewan Prairie

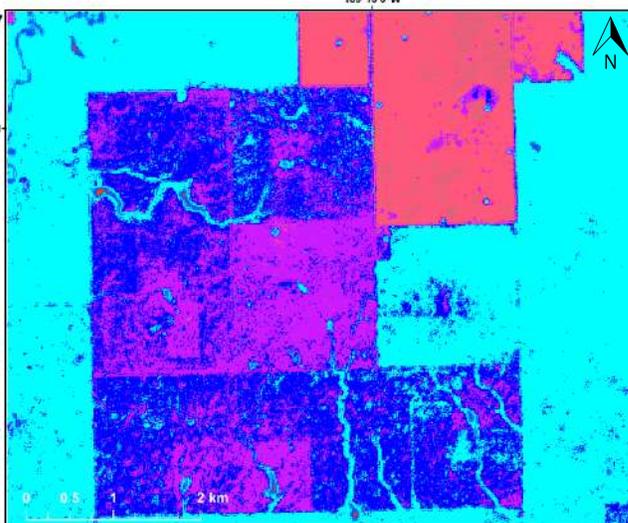


Photo credit: Government of Saskatchewan

Resilience strategy, government developed output-based performance standards that apply to more than 65 Saskatchewan industrial facilities across Saskatchewan. These facilities currently generate approximately 8.5 million tonnes of emissions and are expected to reduce that portion by a total of 10% by 2030.

Performance standards are only one method of reducing emissions in Prairie Resilience. New regulations have come into force which require a 40% reduction in emissions from electricity generation by 2030, and a 40-45% reduction in emissions by 2025 from upstream oil and gas operations.

Mitigation of emissions is important for



A sample model area. The model can accurately display the land-cover type within a 10% error. Figure credit: Saskatchewan Ministry of Environment

tackling climate change, but if Saskatchewan reduced its provincial emissions to zero tomorrow, there would still be a climate change challenge to address in the province. This is why climate resilience – the ability to cope with, adapt to and recover from stress and change – is at the forefront of Prairie Resilience.

The commitments in Prairie Resilience are designed to enhance the resilience of the province's economy, society, and environment. For example, Prairie Resilience contains commitments to: ensure natural and commercially forested lands are managed in a manner that enhances the removal and storage of carbon from the atmosphere; maintain or restore landscape integrity to

optimize ecological goods and services and manage the risk to biodiversity; and work towards achieving Canada's Target 1 for expanding Canada's system of protected areas and biodiversity conservation.

In November 2018, the province released a Climate Resilience Measurement Framework to help measure resilience in the face of a changing global climate. This government-wide approach includes 25 measures to monitor and enhance provincial resilience to climate change. Multiple systems need to be strengthened to enhance the resilience of the province to climate change. This includes the ability of our natural systems, physical infrastructure, economic sustainability, community preparedness, and the well-being of people to adapt and thrive in a changing environment and lower-carbon economy. These five key resilience areas are interconnected and promote resilience through interactions that benefit each other. The first annual report on the resilience framework was released in April 2019.

Prairie Resilience is comprehensive, but it is not intended to be the only set of actions taken in Saskatchewan to build resilience to climate change. Building resilience to climate change in Saskatchewan is a collective effort. More information about Prairie Resilience: A Made-in-Saskatchewan Climate Change Strategy and the Climate Resilience Measurement Framework is available at www.saskatchewan.ca/climate-change.

...Agricultural Drainage, continued from page 9

flooding, WSA has implemented a new Agricultural Water Management Strategy. Unfortunately, the focus is on getting drainage licensed with no requirement to retain wetlands, protect habitat, or mitigate for the habitat when it is lost. And unlike conservation officers, WSA does not stop illegal drainage when it occurs, instead responding only to signed written complaints. The end result is that we continue to lose wetlands, publicly controlled habitat, and the birds and animals that depend on them. The provincial government needs to improve on its leadership role on this issue and enact effective policies, monitoring, and enforcement to stop this trend.

We need to do a much better job of conserving the habitat that belongs to all of us. The beloved Red-winged Blackbird, a common sight on virtually every marsh and roadside wetland across the continent, has declined by 92 million birds. They, like other birds, are our “Canary in a coal mine” in that we need wetland conservation legislation, policy, and commitments that protect and conserve wetlands that are monitored and enforced. Tomorrow’s generations depend on it. 🐦



Photo credit: Rebecca Magnus

World Migratory Bird Day Celebration at LMBO

Rebecca Magnus, Conservation and Education Manager, Nature Saskatchewan

Nature Saskatchewan held a large celebration on Saturday May 11, 2019 at the Last Mountain Bird Observatory within Last Mountain Regional Park. Joined by Canadian Wildlife Service, the City of Regina and 108 participants and volunteers, we joyfully

celebrated the World Migratory Bird Day. This year’s theme was “Be the Solution to Plastic Pollution!”

Participants from Regina, Saskatoon, and surrounding communities spent the morning rotating through different stations including: bird banding, where participants got an up close experience with the birds while watching them get aged and banded; mist netting, watching as birds were extracted from the net; a migration obstacle course, where participants had the chance to experience the challenges birds face every year while migrating from Mexico to Canada; and nature crafts including bird feeders, banding bracelets and bird masks. Everyone then joined together at the park’s picnic hall to enjoy a free BBQ lunch and shared conversations about their morning adventures.

To honor this year’s theme, we followed lunch with a shoreline cleanup. Participants were fascinated not only by the unique types of garbage they did not expect to see, but by the lack of garbage and how clean the shore actually was. Participants were encouraged to share how they could be the solution to plastic pollution and created a pledge banner. The weather was great and everyone’s enthusiastic spirits were contagious.

World Migratory Bird Day is celebrated year round to highlight migratory birds, bird conservation, and bird conservation education. World Migratory Bird Day is now celebrated at over 600 sites from Canada to Argentina. In 2019, 70 countries around the world hosted 714 events to celebrate the world’s birds. Right here at home in

Want to Keep Up With the Bird Banding Season at Last Mountain Bird Observatory?

Subscribe to the Black & White Warbler Newsletter!

To subscribe please go to www.naturesask.ca/who-we-are/contact-us.



Saskatchewan, Last Mountain Bird Observatory is the perfect place to celebrate the return of our migratory birds. Each year we band thousands of birds and over a hundred different species. This event was free and open to the public for all ages.



To learn more about Last Mountain Bird Observatory or World Migratory Bird Day please feel free to contact me at 306-780-9481 or by email at rmagnus@naturesask.ca. World Migratory Bird Day at Last Mountain Bird Observatory will be held May 9th 2020!

Lastly, to watch a video of images from all around the globe participating in world migratory bird day please go to www.youtube.com/watch?v=1NiiHfhShSk

Happy birding! 🐦

...Ranchers in Conservation, continued from page 11

for many species to move from one area of quality habitat to another.

If you are interested in any of these programs and funding opportunities, please contact SODCAP Executive Director Tom Harrison at ed@sodcap.com, phone 306-530-1385, or any of the SODCAP agroecologists: Krista Connick Todd, Melanie Toppi, Kelly Williamson, and Diego Steinaker. 🐦

Distinctive Blue Grama flowering heads (comb-like spikes). Blue Grama (*Bouteloua gracilis*) is a warm season perennial grass, native to North America. It is important to livestock and wildlife because of its high palatability and nutritional value, resistance to grazing and drought, and it is a long-lived grass that grow late in the season, when the forage quality of many cold season species decrease. Photo credit: Diego Steinaker.



Livestock Coverage With SGI

Pam Cradock, Marketing & Communication, SGI Canada

Do you have insurance for the animals on your property? What would you do if something happened to them? SGI Canada offers an add-on livestock coverage for your Agro insurance policy. It's affordable and easy to set up, and it covers the common risks you'll face in the coming year. And if you have a claim, it could save you thousands of dollars.

Animals covered include cattle, horses, pigs, sheep, poultry, and even bees! Rates and coverage provided are based on the class of the insured animal, and settle claims are based on the market value of the animal at the time of loss. In some situations, you can also insure llamas, goats, and other exotic species on a case-by-case basis.

Possible risks that may be covered include:

- fire or lightning
- cyclone, tornado, windstorm, hail
- explosion or earthquake
- flood or drowning
- collapse of a building, bridge or culvert, or any falling structure, tree or part of one of these items
- collision during transportation
- electrocution
- attack by dogs or wild animals

There are two types of coverage options: individually identified coverage and blanket coverage.

Individually identified coverage insures each animal and their value individually on your insurance policy. It's a very accurate way of taking out insurance coverage, but it does require some work on your end. Every time you buy or sell an animal or a new animal is born on your farm, you'll need to adjust your coverage accordingly. This is an appealing option for people who only want to insure their higher value animals.

Blanket coverage gives you the option to choose one overall value for all the animals you have in one species or class. That means you choose one amount for your cattle, one for

your sheep, etc. It's an easy way to set up your insurance because it covers your entire herd, but you'll need to make sure you make the value high enough. If you don't have enough insurance, you could end up with a smaller claim payment than you need or expect.

SGI's brokers will offer personalized service to help you navigate the ins and outs of this coverage and anything else you may need. For more information visit sgicanada.ca/findbroker to find a broker near you. 🐦

Conserving Habitat for Birds

The Nature Conservancy of Canada, Saskatchewan Region

Whether you are walking in your favourite park or sitting in your own backyard, listening to the different bird songs can be a great reminder to pause and enjoy nature's sounds.

However, those bird songs we often cherish are becoming scarce. The 2019 *State of Canada's Birds Report* was released earlier this year by Environment and Climate Change Canada. The report looks at the population trends of over 400 bird species in Canada since 1970. Some of the key findings include:

- Bird species dependent on native grasslands have decreased by 87%.
- Our grasslands have lost an estimated 300 million birds since 1970.
- Migratory shorebirds have decreased by 40%.
- Long-distance migratory shorebirds have declined by 55%.
- Aerial insectivore birds have decreased by 59%.
- 55 of 58 seabirds that use Canadian waters are of conservation concern, and 20 species are at risk of extinction.

Reasons why bird populations have declined include habitat loss, climate change, and pollution. These issues impact birds on their Canadian breeding grounds, during their migration, and in their wintering areas.



Last year, the Nature Conservancy of Canada collaborated with Bird Studies Canada for the Saskatchewan Breeding Bird Atlas on the identification of 149 species of birds on 13 of our properties. Seven species at risk were identified including Common Nighthawk, Barn Swallow, Bank Swallow, Sprague's Pipit, Baird's Sparrow, Bobolink, and Chestnut-collared Longspur.

Additionally, the Monitoring Avian Productivity and Survivorship (MAPS) project is taking place at NCC's Big Valley property, near Lumsden. As part of the multi-year MAPS project, six times throughout the summer, trained NCC staff placed a uniquely numbered leg band on temporarily captured birds, while also recording the age, sex, breeding status, and other characteristics of the birds.

NCC is committed to science-based conservation and the information collected will enable NCC to make informed decisions on how to manage and conserve natural areas and the species they sustain. With your help, future generations will have the same opportunity to enjoy the beautiful sights and sounds of nature. 🐦



Raise a Glass to Stewards of Sask!

\$1 from every litre of Saskatchewan-made Prairie Sentinel Cider sold goes to Stewards of Sask species at risk programing!



Partner Projects: Fueling Conservation on the Prairies

A highlight from one of our partners, Ducks Unlimited Canada and Pembina Pipeline Team-up for Conservation. Modified from the DUC February news release.

Ducks Unlimited Canada (DUC) and Pembina Pipeline are teaming up on a new project that promotes sustainable industry practices, acknowledges a working landscape, and delivers essential environmental benefits to all who call the region home.

“Those of us who live and work in Western Canada know how powerful its landscapes are. They are the economic drivers and environmental jewels that support our communities and connect us to the world. Ensuring they remain healthy and productive is a responsibility we all share.” Ian Balfour, Vice President, Pembina Pipeline stated.

Pembina’s \$1-million investment will conserve approximately 2,000 acres (809 hectares) of important wetland and grassland habitat in key areas of Alberta and Saskatchewan.

“We look forward to witnessing this important conservation work come to life in the backyards of our family, friends, and stakeholders,” says Balfour.

Alberta and Saskatchewan are among DUC’s top priority areas. Their expansive landscapes are home to thousands of shallow wetlands that provide critical habitat for millions of North America’s migratory birds. However, these wetlands aren’t just for ducks, they’re for everyone. The wetland and grassland areas DUC and Pembina are partnering to conserve are some of the most important ecosystems on the planet. They protect our communities and our way of life. Wetlands naturally filter harmful nutrients and pollutants from water, keeping lakes and rivers clean; they reduce the

Melissa Ranalli, Species at Risk Manager

As Species at Risk Manager, my admiration for Saskatchewan’s natural landscapes, unique species, and the people that steward them continue to motivate me. Soon after completing a BSc in Biology at the University of Regina and a MSc on green roof plant ecology at Saint Mary’s University, I started working for Nature Saskatchewan in 2009. In this time, government priorities and program funding have changed, but the unwavering commitment of our participants’ to habitat conservation has allowed the SOS programs to persist. I am very grateful for this commitment, and thoughtful of it when I enjoy Saskatchewan’s outdoors.



harmful effects on communities from costly and devastating floods; wetlands store large amounts of carbon, keeping it from being released into the atmosphere as greenhouse gas; and their natural habitat provides homes for wildlife and opportunities for outdoor recreation year-round. Rewards of safeguarding these natural areas are well worth the effort.

DUC Conservation activities funded by Pembina will be delivered through DUC’s Revolving Land Conservation Program. It’s an innovative approach that engages landowners and other partners to support a perpetual cycle of conservation. DUC purchases land with high conservation value and restores the wetlands and grasslands on the property, the land is then sold back to producers with a conservation easement placed on the title that protects the natural habitat, while allowing subsequent owners of the property to use the land in their operation through haying or grazing. Funds from the sale of the land provide DUC with the capital to repeat the cycle.

“The revolving model allows Pembina’s support to be continually leveraged, funding conservation for years to come,” says Karla Guyn, CEO, DUC, “It’s a powerful way to forge an environmental, economic, and social legacy.”

By supporting DUC’s Revolving Land Conservation Program, Pembina is helping keep land in the hands of private owners. It allows agricultural interests to stay on the land, while protecting important areas for conservation. Given high demand for land across the Prairies, DUC’s Guyn says this is important.

“Partnerships with companies such as Pembina and initiatives like the Revolving Land Conservation Program showcase our commitment to collaboration,” she says. “We believe in finding solutions by working together with those with whom we share our land, water, and wildlife.” 🐦

...Native Prairie Workshops, continued from page 5

over 230 participants during the 3-day event.

The event also includes a poster session and trade show, where participants can find some of the specialized restoration equipment and plant material required for their projects.

“Few events bring together prairie restoration and reclamation specialists such as the Native Prairie Restoration and Reclamation Workshop,” says Carolyn Gaudet, SK PCAP Manager. “In addition to those specialists, we’ll also have a number of grassland conservationists that will be attending that otherwise would not attend NPRRW, so it provides a great opportunity to broaden the scope of the event. We look forward to bringing these diverse people together to learn from everyone’s collective experience,” she adds.

Registration is open now and a draft program is also available. A subsidy will be available to landowners and small NGO’s to help cover the cost of attending the workshops. The subsidy application form will be available online in November. Please visit the website for more information and to register: www.pcap-sk.org/upcoming-events. 🐦

Photo credit: DUC



Operation Burrowing Owl, Rare Plant Rescue, Shrubs for Shrikes, Plovers on Shore, and Stewards of Saskatchewan banner program, are programs of:

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Check us out on social media to stay up-to-date with all our
current news!



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