

# Stewards of Saskatchewan

Editors: Grace Pidborchynski, Emily Putz, Ashley Vass, and Rebecca Magnus



#### Rare Plant Rescue: An Appreciation for the Landscape, Landholders, and Most Elusive Plants

Tory Frankl & Vanessa Wagner, Conservation Database Technicians, Nature Saskatchewan

Rare Plant Rescue's (RPR) Search and Monitoring Crew's role is to venture out to specific habitats in search of elusive plant species. Since 2002, RPR has extended across southern Saskatchewan working with landholders that are keeping native landscapes thriving. Our dedication to conserving nature includes our respect and openness to understanding every operation and landholder is different, and without them, these rare plants would not be accessible. We are grateful for their interest in conservation and for their support in our search for these species.

This past field season, we had the opportunity to visit with seven current RPR participants and eight potential participants, three of which signed into RPR, adding 8,824 new acres with suitable habitat for rare plants! The RPR team searched and monitored seven federally protected rare species: Slender Mouse—ear-cress (Crucihimalaya virgata), Buffalo grass (Bouteloua dactyloides), Smooth Goosefoot (Chenopodium subglabrum), Small-flowered Sand-verbena (Tripterocalyx micranthus), Hairy Prairie-clover (Dalea villosa), Tiny Cryptantha (Cryptantha minima), and Dwarf Woolly-heads (Psilocarphus brevissimus var. brevissimus). To the search and monitoring crew's excitement, six out of the seven species were found!

Tiny Cryptantha was surveyed and four populations were found on three of the four quarter sections surveyed. We searched 22 quarter sections for Dwarf Woolly-heads and 10 quarter sections for Slender Mouse-ear-cress. Only one quarter had Dwarf Woolly-heads, but this small success is still important for this ephemeral wetland specialist, as its habitat can be at risk of being ploughed in some areas in dry years. We once again did not find Slender Mouse-ear-cress, but we are still hopeful to find a new population one day.

The rest of the target species were present across the prairie ecozone. A total of 21 quarter sections with previously known populations were monitored and 61 quarter sections were searched for new populations. There were 35 new populations of Smooth Goosefoot and 37 revisited populations that were all doing well! Small-flowered Sand-verbena was absent at two out of the 21 population revisits, but 11 new occurrences were found. As well, there were 21 new populations of Hairy Prairie-clover with seven previous locations re-confirmed. Buffalograss was also monitored and found at four locations.

#### Stewards of Saskatchewan is a suite of 5 voluntary stewardship programs delivered by Nature Saskatchewan:

Operation Burrowing Owl Rare Plant Rescue Shrubs for Shrikes Plovers on Shore

#### Stewards of Saskatchewan banner program

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

All together 1,193 program participants are conserving 1,036,140 acres of prairie and 213 miles of shoreline habitat for species at risk and other prairie species.

While searching for our target species we came across ten provincially rare species! These were Least Mousetail, (Myosurus minimus), Rocky Mountain Pincushion Plant (Navarretia saximontana), Rockyround Sandwort (Eremogone congesta var. lithophila), Schweinitz's Flatsedge (Cyperus schweinitzii), Flat-spine Sheepbur (Lappula occidentalis var. cupulata), Beaked Annual Skeletonweed (Shinnersoseris rostrata), Kelsey's Cryptantha (Cryptantha kelseyana), Dakota Stinking Goosefoot (Chenopodium watsonii), Gumbo Evening Primrose (Oenothera cespitosa), and Small Lupine (Lupinus pusillus ssp. pusillus).

Although our team is on the lookout for plants, we often encounter interesting wildlife on the way to some of our search sites. One particular highlight of this summer was coming across a pair of Ferruginous







Small-flowered Sand-verbena Photo: Vanessa Wagner

Hawks utilizing an artificial nesting platform. As we drove by every morning to get to our search site, we got to see the birds in action, as well as a few babies in the nest! It is always so nice to see landholder's efforts pay off, and to know that we are working in the right direction to conserve these species and the habitats they rely on.

We ended the field season grateful to Brandon Melnechenko for organizing and leading the field season, and we wish him well as he continues his university studies. We are excited to welcome Ashley Vass back to the RPR Coordinator position after a term organizing, running and writing the report for the Canada Prairie-wide Piping Plover Census. Welcome back Ashley!

For more information about the Rare Plant Rescue program or if you have seen a rare plant, please reach out to Ashley at (306) 780-9417 or through email at rpr@naturesask.ca. You can also call our toll-free Hoot Line, at 1-800-667-HOOT

# Have you considered joining a Local Nature Society?

Nature Saskatchewan has many local societies throughout Saskatchewan.

Don't miss out on local field trips with great people.

Find local societies at naturesask.ca

# 11<sup>th</sup> Native Prairie Restoration/Reclamation Workshop Coming to Regina

The Saskatchewan Prairie Conservation Action Plan (SK PCAP) is looking forward to hosting the 11<sup>th</sup> Native Prairie Restoration/ Reclamation Workshop along with the Canadian Prairies Prescribed Fire Exchange's Prairie Fire Summit 2025, February 11-13, 2025 in Regina, SK.

Attendees, including scientists, researchers, technical staff, ranchers, communicators, and naturalists, will participate in sessions that address tools for restoration, restorations from a soils perspective, invasive weed strategies, industry practices, and urban projects, using native seed, and new skills and technologies. Prairie restoration and reclamation practices continue to shift and evolve as does land use and development. Many experts and researchers from across the prairies and northern United States will be sharing their collective experiences and knowledge.

The event also includes case studies, a poster session, tradeshow and networking opportunities.

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For more information, you can visit: https://www.pcap-sk.org/upcoming-events/native-prairie-restorationreclamation-workshop-2025 or contact Carolyn Gaudet at pcap@sasktel.net.



## **Ashley Vass, Rare Plant Rescue Coordinator**

Hello! I'm Ashley Vass. I started with Nature Saskatchewan in January, 2014, shortly after receiving my M.Sc. in Biology from the University of Regina. Although born and raised in Regina, I've always preferred being out on the wide open prairie. There's always been a place in my heart for our grassland ecosystem and all the biodiversity that it supports. I enjoy teaching my children the different types of flowers, bugs, and other wildlife whether it be while out hiking in the hills or just in our own backyard. I have been lucky to hold many different roles within the stewardship programs and have recently returned to my position as Rare Plant Rescue Coordinator, after a hiatus last year where I had the pleasure of coordinating the Prairie Canada Piping Plover Census. Working with so many community-focused and conservation-minded people really inspires me for the future and I look forward to another year! You can reach me at rpr@naturesask.ca, or call 306-780-9417.

# **Great Year for Shrike Sightings!**

Emily Putz, Habitat Stewardship Coordinator, Nature Saskatchewan

Loggerhead Shrikes can be a conspicuous species when nesting on the farm. Between their hungry chicks' loud begging calls come July, their territory-marking and prey storing impalement behaviours, and their bold grey, black, and white colouring; shrikes don't often go unnoticed if they are cozying up as neighbours in the yard site. That was certainly the case this year with the flash of their wings catching the eye of a number of folks contributing to an uptick in new sightings over the 2024 season.

This year's "HOOT"-line was a buzz with shrike activity. Between the spring and fall, over 90 public calls and emails were taken to report Loggerhead Shrike sightings. These calls reported in 34 pairs, 66 individuals, and 21 confirmed juveniles. Whether the sightings were a result of increased shrike presence or

increased public awareness it is hard to say, either way it's a win for the species recovery! Thank you to everyone who called in and keep up the fantastic work! Every call contributes to the understanding of the population and range of the Loggerhead Shrike in Saskatchewan.

We are grateful to participants keeping an eye out and reporting any shrikes they saw this summer. The Shrubs for Shrikes program currently has 350 participants conserving almost 160,000 acres of habitat. Our participant census is only 44% complete and already 60 pairs, 79 singles, and 28 juvenile shrikes have been reported! It is looking to shape up to have been a successful summer for these unique birds.

If you have any questions about Loggerhead Shrikes, or would like more information on our Shrubs for Shrikes program, please call or text me at 306-780-9832, or email outreach@naturesask.ca.



**Buffaloberry. Photo: Matt Lavin** 

In partnership with SaskPower's Shand Greenhouse and Blazing Star Wildflower Seed Company we will be offering free Bee and **Butterfly Garden Seed Mix** packets and Buffaloberry Seedlings next summer. We will also be offering free Milkweed Seedlings in partnership with Shand Greenhouse, with seeds sourced from Prairie Originals. Ask us how to get yours today!



Dwarf Milkweed. Photo: May Haga



Loggerhead Shrike feeding young.

# Emily Putz, Shrubs for Shrikes, Plovers on Shore, and Stewards of Saskatchewan Banner Program Coordinator

Hello Everyone! I first started working for Nature Saskatchewan as a Student Summer Assistant in 2014. In 2015, I graduated from the University of Regina and was back with Nature Sask as the Rare Plant Rescue Coordinator the next year! Since my initial term as RPR coordinator, I've had a chance to try my hand at all the programs, spending time as Database Tech, OBO Coordinator, and back to RPR! I am now permanently coordinating the Shrubs for Shrikes, Plovers on Shore, and SOS Banner Program. I look forward to many future summers with these programs, and many future visits with our wonderful participants! While not out in the field scoping out Species-at-risk, I live on my 30-acre property by Silton, SK with my dogs, cats, horses, geese, ducks, and sheep. And one very understanding and loving fiancé Evan! I can be reached by email at outreach@naturesask.ca or by phone at 306-780-9832.



#### Eastern Kingbirds Won't Back Down

Val Thomas, Nature Saskatchewan steward

We always love hearing from people about their nature observations! Here, one of our stewards describes an encounter she witnessed with Eastern Kingbirds and a Loggerhead Shrike.

While birding along a trail around Yellow Grass, I noticed three young Eastern Kingbirds huddled together on a barbed wire fence to the right side of the road. Thinking they may be waiting for the mom to return with food, I stopped in the middle of the road a little ways away from them to observe what would happen. After about three minutes, one of the parents was seen hopping cautiously from post to post approaching the young birds. It landed just above them with an insect in its mouth. Camera-ready, when the adult flew down to feed them, a photo was taken. Seeing it was a back view of the adult, I thought it would be nice to try for a front feeding shot. Close to ten minutes passed. No more adults came. Thinking the vehicle may be deterring them, I decided to leave. On starting the vehicle and glancing to the other side of the road, the reason became obvious. A Loggerhead Shrike was sitting on a lower barbed wire with two very anxious Eastern Kingbirds on the top wire.



Loggerhead Shrike near kingbirds. Photos: Val Thomas



The Kingbirds began swooping down at the shrike, hoping to scare it off. After a couple of minutes, the Loggerhead Shrike flew a few feet away to land on a nearby fence post. The kingbirds followed and continued swooping. Eventually the shrike flew off. I left in hopes the feeding would now continue. I did check back a couple of days later and noticed young Eastern Kingbirds in the area, so the Loggerhead Shrike must have not scared them too bad!

#### Operation Burrowing Owl Update: Read "Owl" About It!

Grace Pidborchynski, Habitat Stewardship Coordinator, Nature Saskatchewan

What a great, successful field season we had at Nature Saskatchewan! With the help of our Habitat Stewardship Assistants, Kim Sowa and Nathaniel Hak, we were able to visit 31 current Operation Burrowing Owl (OBO) participants and 13 potential program participants to discuss OBO, how Burrowing Owls are faring, and what participants can do to help. We are thrilled to welcome eight new program participants who are all helping us monitor the Burrowing Owl population and conserve their habitat in Saskatchewan. Thank you to everyone who welcomed us into your homes and out on the land this summer and charmed us with your stories!

Currently, OBO has 350 participants conserving almost 221,000 acres of Burrowing Owl habitat across southern and central Saskatchewan. We are working hard on following up with participants for the 2024 Burrowing Owl census and so far, we have reached 56% of participants (90% being the goal). These participants have already reported 24 pairs, 8 singles, and 26 young! We still have a way to go to meet the goal, so I am optimistic that we will receive more sightings as we reach more participants. Our annual census helps monitor Burrowing Owls population, track any changes, and determine distribution across the province.

We have also had several sightings reported through Nature Saskatchewan's toll-free Hoot Line (1-800-667-4668) throughout the spring and summer. Eighteen members of the public called in to report 11 pairs, 8 singles, and 10 young. Early in the field season there seemed to be a bit of a hot spot, where we were able to check on two reports of owl pairs that were



nesting in a ditch during our summer staff training week. It was a fantastic opportunity to help our staff learn what to look for to identify a Burrowing Owl. We later got word that one of the owl pairs successfully raised a family of 7 young! We are always thrilled to receive a Burrowing Owl report and every call helps us track and monitor all species at risk across Saskatchewan.

The toll-free HOOT Line is a great and easy way to report species at risk sightings and we thank every person who calls in to report. Rest assured we take privacy seriously and we never share personal information.

As always, if you have any questions or comments, please don't hesitate to reach out and give me a call at (306) 780-9833, call our HOOT Line at 1-800-667-4668, or email me at obo@naturesask.ca. I would love to hear from you!



#### Ordinary People Taking Extraordinary Action: Ray Glasrud Protects Grasslands

This article is republished from Your West Central Voice, May 7, 2024, and features the work of one of our Stewards of Saskatchewan participants! Edited for length.

Ray Glasrud grew up on a grain farm near Mazenod. Growing up on the farm taught him the value of hard work and self-reliance. It also instilled in him an appreciation for open spaces, nature, and wildlife, which provided the foundation for his life's work.

After he graduated from high school, his love of wildlife led him to the University of Montana where he studied Wildlife Biology, after which he pursued a career in wildlife research and habitat conservation. For several years, he worked for the Canadian Wildlife Service, the New Zealand Forest Service, and the US Antarctic Service, among others.

Ray eventually became tired of the politics that seemed to permeate his chosen field. He felt that science had become secondary to politics. So, in 1982 he decided to return to agriculture.

He and his wife Linda had saved enough money to buy land. He could now pursue his lifelong interest in ranching. His 9000-acre ranch is mostly native prairie and has many unique landscapes. It also features remnants of life in the region before colonization. The ranch's name, "Pole Trail Ranch Company", plays homage to the North-West Mounted Police Pole Trail from Wood Mountain to Moose Jaw that Ray's grandfather had followed when he came to the region to homestead.

Ray and Linda knew from the outset that they wanted to protect the existing

grassland on the ranch, as well as reestablish grassland in areas that had been broken. They understood that grasslands are critical for biodiversity and habitat, but that they are also one of the most threatened ecosystems in the world. For support and assistance, they turned to Nature Saskatchewan, an organization that offers a variety of programs and resources to help landowners protect threatened habitats and species. One of the first ways that Nature Saskatchewan helped was to provide financial assistance to help them reseed about 500 acres of the ranch which in Ray's opinion should never have been broken. They also participate in Nature Saskatchewan's wildlife monitoring programs, particularly by monitoring the population of Loggerhead Shrikes and Ferruginous Hawks on their land.

Ray knows that large ruminants can be







an important part of keeping grasslands healthy and productive. Among other things, healthy grasslands provide habitat for pollinators, help regulate water, sequester carbon, and control erosion. Grasslands co-evolved with grazing animals, but on the great plains the bison that once roamed are now largely gone. Cattle can helpfill that role, but only if they are properly managed. To do this, Ray uses rotational grazing to ensure that his land is not overgrazed. He also protects water sources and keeps outside interests such as oil companies limited in their activities. Ray and his family think it is vitally important that as much of the natural world that remains should be protected from human destruction and preserved for future generations.

This column is a collaborative project of the Saskatchewan Environmental Society (SES) and the Regional Centre of Expertise on Education for Sustainable Development (RCE-SK).

# **Grace Pidborchynski, Operation Burrowing Owl Coordinator**

Hi everyone! I have been working with Nature Saskatchewan since May of 2023, where I started out the Habitat Stewardship Assistant for Rare Plant Rescue during the summer and was fortunate enough to stay on as the Conservation Database Technician. I eventually transitioned to my current position of Habitat Stewardship Coordinator for Operation Burrowing Owl, where I continue to get the chance to connect with our fantastic stewards! My roots are in Manitoba, where I grew up in a small town in the southwest corner of the province. I graduated from the University of Manitoba, majoring in Biological Science with a concentration in Ecology and Environmental Biology. Throughout my education and into today, my passion lies with environmental conservation and I am so lucky to live in a province where we can look outside to see all the biodiversity every day. My favourite place to be is out in nature, where I can be found fishing, cross-country skiing, or taking photos of wildlife. You can reach me at obo@naturesask.ca or by calling 306-780-9833.





Nature Saskatchewan staff and interns gathered at the Royal Saskatchewan Museum to celebrate Nature Saskatchewan's 75th anniversary. Photo: Nature Saskatchewan

#### Nature Saskatchewan Staff Update

Rebecca Magnus, Species at Risk Manager, Nature Saskatchewan

Please join me in welcoming back
Ashley Vass to the Habitat Stewardship
Coordinator role running the Rare Plant
Rescue program. Ashley took on another
role, coordinating the 2024 Prairie
Canada Piping Plover Census January to
September 2024. Ashley has been
working with Nature Saskatchewan's
Stewards of Saskatchewan programs for
over a decade, since 2014! We are
grateful for her continued passion and
dedication she brings to the programs
and team. Welcome back Ashley!

Please also join me in thanking Brandon Melnechenko for his term, covering for Ashley and keeping the program running smoothly through the field season. We are grateful for his hard work and dedication to the programs and field staff he organized and supported. Thank you Brandon!

#### Plovers Piping up along Saskatchewan's Shore

Emily Putz, Habitat Stewardship Coordinator, Nature Saskatchewan

Piping Plovers are a federally-listed endangered shorebird species that are hard to spot, often joked about as "moving rocks" due to their superb camouflage on Saskatchewan's shorelines. Their sandy grey backs, white chests, and black banding blends in perfectly with rocky and gravelly terrain. Their chicks' colouration is broken up even more, with mottling patterns helping them blend in perfectly against a sandy backdrop.

Spotting them can be a challenge, but it was a challenge Nature Saskatchewan staff were willing to meet this summer as we got our boots (and sometimes pants!) muddy helping out with the Canada Prairiewide Piping Plover Census! For two weeks in early June we surveyed basins, on the hunt for this elusive bird. Our efforts were rewarded with a few sightings, and our work contributed to this important census.

With the large majority of our Plovers on Shore participants conserving shorelines surveyed by this year's Prairie-wide census, we are excited for the census report to see how the Piping Plovers fared this breeding season.

Plovers on Shore has 76 participants conserving 217 miles of shoreline for Piping Plovers. For more information on the Plovers on Shore program, or if you have any questions or comments, please call or text me at 306-780-9832 or email outreach@naturesask.ca.







## Rebecca Magnus, Species at Risk Manager

Hi there! Welcome new participants and hope everyone is doing well. In case you don't know me, I have been with Nature Saskatchewan since 2007, largely working with the Stewards of Saskatchewan programs. My husband, Ryan, and I have two boys 10 and 13 years old that keep us busy!

As you take time here and there to catch up on some of the work our great province is doing to partner and collaborate, I hope you find the articles informative and positive. There is so much momentum and support for conservation today, and we know that the key to continued success is partnerships and support for all of you... the stewards of the land. I hope you know you are appreciated and your voice is heard. Feel free to reach me, Rebecca (Becky) Magnus [rmagnus@naturesask.ca or 306-780-9270(c)], anytime. We appreciate learning from you and your experiences, and are grateful for all your efforts in the conservation of biodiversity.

#### Growing Canada's Native Seed Industry: Insights from a Nuffield Scholar's European Journey

Renny Grilz, 2024 Nuffield Canada Contemporary Scholar

In the summer of 2024, I had the incredible opportunity to embark on a six-week journey across Europe as part of my Nuffield Canada Agricultural Scholarship. This experience allowed me to dive deep into the native seed industry and learn about innovative habitat restoration practices across the continent. My travels took me through England, Ireland, Northern Ireland, Germany, Estonia, and Latvia, where I engaged with native seed producers and explored a variety of restoration methodologies, from rewilding and meadow-making to woodland meadows and urban naturalization projects.

As someone who has worked in prairie restoration for over 30 years and is co -owner of our family native seed business (Blazing Star Wildflower Seed Company), I've always been passionate about the production and use of native seeds in restoration projects. This Nuffield project gave me the chance to expand my knowledge and discover how European producers manage native seed operations. I gained valuable insights on wild seed harvesting, tracking the history of seeds throughout their life cycle, seed production plot management, and large-scale harvesting techniques. Visiting these producers firsthand offered a fresh perspective on how their approaches could be adapted to benefit



Tour of the only native seed company in Estonia. The company was created by the University of Tartu and grows over 200 species of native plants on 2 ha of seed production plots.

Photo: Renny Grilz

the Canadian native seed industry.

Europe's commitment to biodiversity conservation is clear through initiatives like the EU's Natural Restoration Law and England's Biodiversity Net Gain program. These frameworks integrate biodiversity into land use and development planning, emphasizing the recovery of ecosystems. Seeing these initiatives in action provided me with practical ideas for how similar policies could drive the growth of Canada's native seed sector and enhance habitat

restoration efforts across the country.

My goal with this Nuffield project is to share the innovative practices I encountered with Canadian native seed producers and restoration practitioners. By applying the lessons learned from Europe, I hope to inspire growth in the Canadian native seed industry and expand its impact on habitat restoration and biodiversity conservation. My Nuffield travels will continue until summer 2025, with travels planned for across North America, meeting with fellow seed producers across the continent.

I would like to sincerely thank Nuffield Canada and the Nature Conservancy of Canada who generously sponsored Nuffield Canada for my scholarship. Thank you to all the additional sponsors who made this scholarship possible including Saskatchewan Provincial Parks, Brett Young Seeds, Blazing Star Wildflower Seed Company, Meewasin Valley Authority, Native Plant Society of Saskatchewan, Skinner Native Seeds, Saskatchewan Environmental Society ACE Fund, ALCLA Native Plants, and KT Honey. This incredible learning experience has not only broadened my understanding of the native seed industry but will also help me contribute to the growth of native seed industry in Canada.

Renny with an employee/translator (left) and Ernst Rieger (center), owner of Rieger-Hofmann native seed company in Germany. Rieger-Hofmann is one of the largest native seed companies in Germany, working with 80 farmers to produce native seeds on over 2,000 ha of land.

Photo: Renny Grilz



#### Saskatchewan Prairie Conservation Action Plan Partnership kicks off new 5-year Strategic Plan

Carolyn Gaudet, Manager, Saskatchewan Prairie Conservation Action Plan

Since 1998, the Saskatchewan Prairie Conservation Action Plan (SK PCAP) has been bringing Saskatchewan's prairie grassland conservation organizations together through the PCAP Partnership. It started as a collection of 16 partners as a subcommittee of the Saskatchewan Stock Growers Association, and since then is has grown into a decades-long commitment that has sparked numerous resources, high-profile events, education and awareness campaigns and a current partnership made up of 35 organizations.

In 2023, the SK PCAP Partnership met to discuss and develop a 5-year Strategic Plan. In November 2024, the PCAP Partnership gathered for a Signing Ceremony to kick off the new plan.

The PCAP Partnership's shared mission is to facilitate the conservation, enhancement, and restoration of Saskatchewan native prairie ecosystems for all living things, including the people who derive cultural and socio-economic value from these lands, through our core strategies of:

- A. Collaborating for and promoting the maintenance and enhancement of native prairie; this includes promoting and participating in the International Year of Rangelands and Pastoralists in 2026, continuing to build capacity for prairie conservation through in-person events and collaborating to promote alignment of the K-12 curriculum with PCAP's mission.
- B. Enabling the current and next generation through education, knowledge transfer and innovation, and; this includes maintaining and improving SK PCAP's hub of relevant and up to date information, developing a mechanism for collaboration to facilitate more effective data sharing and increasing intergenerational engagement and connection to native prairie.
- C. Supporting land users to continue beneficial land practices; including maintaining and enhancing SK PCAP's land

users' section of the website with relevant programming and promoting and supporting knowledge transfer and mentorship amongst land users.

Most of the 35 SK PCAP Partners have signed on to support the 5-Year Strategic Plan, as they recognize the critical importance of preserving the prairie ecosystems in Saskatchewan, which are not only of local significance but also contribute to the broader global effort to address climate change and protect endangered species.

The SK PCAP's strategic approach to increasing awareness about habitat restoration, species at risk protection, and community engagement resonates with PCAP Partner values and aspirations for a sustainable future.

Saskatchewan
Prairie
Conservation
Action Plan
Framework
Renewal
signing
ceremony with
partners.
Photo: Caitlin
Mroz-Sailer



We are grateful to have two of our recent summer staff stay on with us as Conservation Database Technicians as they work to get our new Stewards of Saskatchewan database up and running! Read their bios below:

#### Tory Frankl

Hi! I started working for Nature Saskatchewan at the beginning of the summer in 2024 as part of the Rare Plant Rescue Search and Monitoring Crew. I am now working as a Conservation Database Technician, where I get to look back on everything collected by the Rare Plant Rescue crew over the summer! I'm from Regina, but I spent plenty of time on my family's farm when I was younger, where I developed a fascination for nature and, later, an interest in land management and conservation—which is where I focused my education. I recently received my BSc in Environmental Biology from the University of Regina, and, between semesters, I left the prairies to work as a rangeland technician in British Columbia, where I had the opportunity to learn more about grassland management. Aside from my professional life, I love going on walks, traveling, and listening to music. I am grateful to have had the opportunity to explore biodiversity in different parts of the world and to grow a greater appreciation for Saskatchewan's outdoors.

#### Vanessa Wagner

Hi, my name's Vanessa! I am originally from Germany but spent the majority of my life on an acreage in southern Saskatchewan. I am a fourth year student at the University of Regina, working on two degrees: Environmental Biology, and Environmental Geoscience. I started at Nature Saskatchewan in the summer of 2024 on the Rare Plant Rescue Search and Monitoring Crew, and am now continuing as a Conservation Database Technician. Before this field season, I did not realise how much biodiversity the Prairies has to offer, and am so grateful to be able to see the uniqueness of these landscapes. I grew up going camping and fishing a lot with my family, which led to my interest in learning about animals and their habitats. I always knew that I would like to pursue a career with animals, and over the years of trying out different jobs, I was able to get a better understanding of what type of career path I would like to take, and landed on the side of conservation. In my free time, I enjoy going on hikes with my husky, traveling, snowboarding, and baking.

#### **SPECIES COMPARISON:**

#### **Prairie Rattlesnake**

(Crotalus viridis)

#### **Bullsnake**

(Pituophis catenifer sayi)



#### **Distinctive features:**

- Bullsnakes have yellow colouring heavily mottled with patches of black & rusty brown
  - Prairie Rattlesnakes are olive green, with yellow and brown tones
- Bullsnakes are longer and leaner than Prairie Rattlesnakes, which are short and chunky
- Bullsnakes have blunt or rounded heads whereas Prairie Rattlesnakes have well-defined, arrow-shaped heads
  - Both species of snakes can be found in Southwestern Saskatchewan

#### Stewards of Saskatchewan in the Spotlight

Emily Putz, Habitat Stewardship Coordinator, Nature Saskatchewan

Stewards of Saskatchewan was a favourite this year in Saskatchewan's small papers and radio stations! The program released many news releases as usual, and the uptake was fantastic! We were also approached to give interviews on topics outside of our news releases and everything from Swift Foxes to Bullsnakes were covered. Highlights include a CBC radio interview on Monarchs, and a Podcast Interview on Saskatchewan Snakes for Discover Moose Jaw. We were very happy with the attention and glad to put some of these little known species into the spotlight, shining a light on the great work our Stewards are doing and contributing to an uptick in HOOT-line sightings.

Speaking of sightings, our SOS Banner Program census is underway, with 30% of program participants responding with their species sightings so far. Barn Swallows continue to take the lead, with 412 adults, 209 chicks, and 128 nests reported. Other species reported in the census so far include 125 Common Nighthawks; 104 Northern Leopard Frogs; 41 adult Ferruginous Hawks, 27 chicks, and 9 nests; 51 American Badgers; 40 Tiger Salamanders; 22 Sprague's Pipits; 14 Bobolink; 4 Short-eared Owls; and lastly 22 adult Monarchs and 2 caterpillars reported through our census so far! Many more of each of these species were also reported by the public through our toll-free HOOTline, once again a big thank you to everyone that acted as our eyes and ears this year!

The SOS banner program now has 310 participants with just over 375,000 acres enrolled. Thanks for a wonderful year! If you have questions or would like more information on the Stewards of Saskatchewan Banner Program, please contact me at 306-780-9832 or outreach@naturesask.ca.



#### Prairie Canada Piping Plover Census

Ashley Vass, 2024 Piping Plover Census Coordinator, Nature Saskatchewan

Piping Plovers (Charadrius melodus) are small migratory shorebirds that breed on the sparsely-vegetated beaches, and muddy or sandy saline flats of the Canadian Prairies, United States Great Plains, Great Lakes, and Atlantic coast from Newfoundland and the French islands of St. Pierre and Miquelon south to South Carolina. There are two subspecies split geographically into three separate breeding populations. Atlantic Piping Plovers (Charadrius melodus melodus) nest along the Atlantic Coast, and Interior Piping Plovers (Charadrius melodus circumcinctus) nest in the Northern Great Plains and the Great Lakes regions. They all winter on coastal beaches, sandflats, and mudflats on the Atlantic coast from North Carolina to Florida, the Gulf of Mexico, and the Bahamas and West Indies. All populations are listed as Endangered.

International Piping Plover Censuses (IPPCs) are a concerted survey effort across Canada, the USA, Mexico, and the Caribbean and were established to determine population size, monitor population trends, understand site use

and habitat availability, identify potential threats, and measure the effectiveness of recovery plans. With the goal of counting all adult Piping Plovers across their range, IPPCs have been carried out every five years from 1991-2016, making it the longest running shorebird census to cover the entire breeding and wintering range of a species. The COVID-19 pandemic prevented the initiation of the seventh IPPC, which was to take place in 2021. Uncertainty in commitment to the IPPC from some jurisdictions led to the development in Prairie Canada of a regional Piping Plover Census coordinated across the provinces of Alberta (Alberta Conservation Association, Alberta Environment and Sustainable Resource Development), Manitoba (Manitoba Wildlife, Fisheries, and Resource Enforcement, Manitoba Piping Plover Recovery Program), and Saskatchewan, led by Nature Saskatchewan in partnership with the Canadian Wildlife Service.

The Prairie Canada Piping Plover Census (PCPPC) was conducted May 27<sup>th</sup> to June 16<sup>th</sup> 2024. Approximately 160 collaborators, contractors, and volunteers spent over 1400 personhours surveying for Piping Plovers on 232 basins (54 in AB, 175 in SK, and 3 in MB). Compared to the previous IPPC,

2024 results show a 4% decrease in adult Piping Plovers with 887 birds (268 pairs) observed. The majority of observations (91%) were in Saskatchewan, with 810 birds (243 pairs) in SK, 75 birds (24 pairs) in AB, and 2 birds (1 pair) in MB. This compares to 928 birds (324 pairs) across the Canadian Prairies in 2016, with 802 (280 pairs) in SK, 123 birds (43 pairs) in AB, and 3 (1 pair) in MB. While the total number was lower, plovers were found on more basins in 2024, with 69 basins (11 in AB, 57 in SK, and 1 in MB) having plover presence, while in 2016 plovers were found on only 55 basins (17 AB, 36 SK, 2 MB).

More than half (57%) of the birds counted during the 2024 PCPPC were found on only four basins: Lake Diefenbaker, Chaplin Lake, Willow Bunch Lake, and Reed Lake; all within Saskatchewan. Lake Diefenbaker continues to be a major hot spot for Piping Plovers with use of the lake by 91 pairs and 305 birds; 34% of the entire Prairie Canada population. Although still supporting a large majority of the population, Chaplin Lake was at an alltime low this year with 91 birds (Highest count was 359 in 2011 and lowest count was 105 in 2001), while Reed Lake was at an all-time high of 40 birds, almost doubling its previous record high of 21 birds. Willow Bunch Lake supported 66 adults, which was higher than its lowest recorded count of eight in the previous census, but only about half of it's record high of 124 birds in 1996. Three basins, Big Quill Lake, Fife Lake, and Redberry Lake, that historically held a larger number of Piping Plovers (435, 53, and 21 respectively), again had no plover presence.

The final report for the PCPPC is being prepared by the Plover Census Coordination Team and will contain a thorough summary of methodology and results. We are thankful for the financial support from Environment and Climate Change Canada, and extremely grateful to all the participants that allowed us to access the shoreline through their properties and to the many partners and people that contributed to the success of this project, without which a survey of this enormity could not have been possible! For more information, please contact Ashley Vass at rpr@naturesask.ca.

#### Ashley surveying for Piping Plovers. Photo: Nature Saskatchewan



#### Exploring Grassland Relationships - How Do Birds, Insects, and Prairie Vegetation Interact with Each Other?

Krista Connick Todd, Co-Executive Director, South of the Divide Conservation Action Program

Native prairie ecosystems are complex, diverse systems. Biodiversity abounds on native rangelands. Years of research and observation have provided information on the biology of many species and their habitat requirements. However, we don't know much about how the species interact! A new study on native grasslands in southwestern Saskatchewan is exploring these interactions by measuring plant community characteristics, and bird and insect abundance and diversity on overlapping plots. Diego Steinaker, PhD, is a biologist with South of the **Divide Conservation Action Program** (SODCAP) and has been involved with this project since its inception.

"Understanding species interactions, and how they relate to their habitat, is key to identifying and supporting grassland management strategies that can enhance and maintain biodiversity" states Steinaker.

Three years of data has been collected on 80 sites, spanning 14 ranches and six different ecosites in the mixed grasslands ecoregion in southern Saskatchewan. Insect populations were collected using sweep nets, pan traps, and malaise tents, and categorized into groups of butterfly larva, grasshoppers, beetles and others. Insect populations were investigated according to two main roles in the ecosystem: as pollinators and as a food source for grassland birds. An inventory of the grassland birds was completed for each plot, identifying birds using their individual calls. Multiple aspects of the habitat and vegetation were also measured, including species composition in plant communities, height and structure of the vegetation, the amount of litter, and bare soil and clubmoss cover on the site,



Collecting field data. Photo: Andrea Tastad

among other variables. Steinaker explains "So far, we have found that diversity of insects, particularly hoverflies, is positively related to abundance of forbs in the site. Our preliminary results also showed a positive relationship between insect lipid content and bird diversity, but no relationship between insect mass and bird density and diversity. In other words, quality may be more important than



A sweep net being used to collect insect populations.

Photo: Andrea Tastad

quantity of insect food for grassland birds. Finally, habitat heterogeneity, or the variability in vegetation structure, was positively related to both insect and bird diversity, and this variability may be particularly important for birds of the most conservation concern"

The importance of habitat heterogeneity on biodiversity may be related to the variability in habitat requirements of different grassland insects and birds, and to individual species' needs for accessing a variety of patch types. How to create this patchwork of diverse vegetation on the landscape is the exciting next step! Heterogeneity can be promoted by focal point grazing disturbances within landscapes, changing the focal areas over time, to produce a shifting mosaic that can enhance biodiversity and enrich wildlife habitat in grasslands.

This project is a partnership between SODCAP's Living Lab - Central Prairies, the Saskatchewan Stock Growers Foundation, Birds Canada, the Canadian Wildlife Federation, and multiple Saskatchewan land managers. We are currently in the process of analyzing new data collected in this 2024 field season. Stay tuned for more results and findings over the next year!



Native prairie valley. Photo: Sarah Vinge-Mazer

## Ecosystem At Risk and the Canadian National Vegetation Classification Project

Sarah Vinge-Mazer, Botanist/Ecologist

Prairie folks have long been familiar with the concept of species at risk, with the flagship Burrowing Owl receiving a great deal of attention when it became Endangered in the 1980s. But across the country there is less familiarity with the concept of ecosystems at risk. We all know that species do not exist on their own, they are but one piece of a larger ecosystem puzzle. Conservation efforts have traditionally focused on species, largely because they were less complicated and easier to focus efforts. Habitat conservation has usually been a part of that. But what about conservation for ecosystems that are endangered on their own?

The Canadian National Vegetation Classification (CNVC) project has been underway in Canada for a number of years and has finally reached the prairies. The goal of the CNVC is to create an ecological classification of all vegetation types, which will then act as a "dictionary" by which users can learn about Canada's vegetation. While the goal is to describe all types, conservationists are particularly interested

in those that are at risk. Using NatureServe methods, which assess the rarity, threats and trends for each type, ecologists can systematically determine which ones are at risk, and thereby direct efforts to monitor them and guide conservation actions or management goals. NatureServe Canada is proud to be leading the project in Canada, working with many partners across the country as well as across the border!

To develop the CNVC, the national team works closely with provincial and territorial experts. Saskatchewan has already had extensive work done to classify vegetation. In the prairies, the Saskatchewan Rangeland Ecosystems (Thorpe 2014) has long been the classification standard, especially as it applies to management of rangelands for grazing. The boreal and northern ecosystems have been described in the Field Guide to the Ecosites of Saskatchewan's Provincial Forests (McLaughlin et al. 2010). These guides help form the basis for describing provincial ecosystems within the national CNVC system. But there is still more data to collect! While those projects have provided extensive coverage of the province's most common vegetation types, there are still a number of rare and uncommon to be described, including

Saskatchewan's alvars and prairie fens.

Recently, NatureServe Canada and the NatureServe Network project completed a preliminary assessment of grassland ecosystems in the prairie provinces. It's no surprise that all of them, from Alberta to Manitoba, are at risk. There are many invasive species degrading the remaining grasslands such as Smooth Brome, Downy Brome, Crested Wheatgrass, Kentucky Bluegrass, Canada Thistle, and Leafy Spurge; while some of them still provide grazing benefits, they are all ecologically devastating.

It is thanks to the careful long-term management of land managers across the prairies that grasslands are still present on the landscape. Continued partnerships to identify and conserve the most at-risk ecosystems will go a long way to seeing them persist on the landscape as healthy and functioning biodiverse areas.

# For more information, visit https://cnvc-cnvc.ca/

**Did you know?** Manitoba already has Legislation protecting two ecosystem types - both alvar and tallgrass prairie are listed as endangered.



Prairie wetland. Photo: Andrea Kotylak

## Mapping Badger Presence in the South of the Divide: A Key Step Towards Understanding Co-existence

Tehlu Singh & Beatriz Prieto Diaz, SK Ministry of Environment

Research plays a crucial role in understanding interactions between wildlife and people and providing effective solutions that meet the needs of both. Some species are challenging to monitor due to their elusive behaviour, which makes them hard to spot and leads to gaps in data, sometimes fueling further misconceptions. One such species found in Saskatchewan and neighbouring provinces is the American badger.

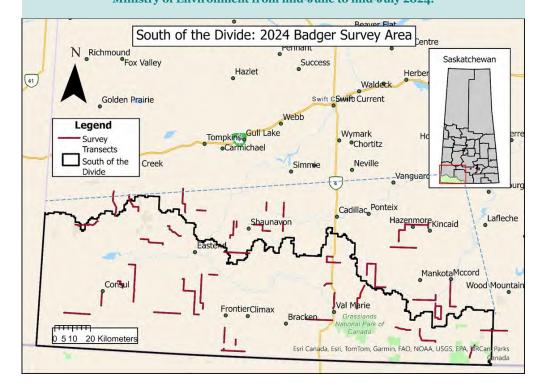
Badgers across the prairie provinces are federally listed as a Species of Special Concern since 2018 due to habitat loss, hunting and trapping, vehicle collisions and secondary poisoning from their prey. Due to their elusive nature and lack of standard survey methods, there are gaps in information surrounding their current distribution, population size and the impact of the above listed threats on local populations. To address this gap and support conservation efforts, the Saskatchewan Ministry of Environment conducted a pilot study to map badger presence in the South of

the Divide — a working landscape in southwestern Saskatchewan known for its rich biodiversity. Through this research, we aim to understand how badgers use the landscape, which will help develop the best management practices to support both the species and landowners' needs.

Two teams of biologists conducted roadside surveys from mid-June to mid-July to observe badger activity across diverse habitats, including native prairies and cropland, as badgers are active during this period in search of food and mating. The teams surveyed 40 road transects averaging 13 km, covering a total of 528.55 km. Surveys were conducted from morning until evening, systematically scanning the area to record badger sightings and signs of their presence, such as burrows, while driving at 40 to 60 km/hr. The team made stops every 1.6 km to search for badger presence. Data was collected digitally using the Survey123 app. Badgers often use roads as travel corridors and hunting grounds, which allowed the team to survey larger areas without land access permissions.

The teams recorded 26 badgers: 11 live adults, three juveniles and one dead juvenile along survey transects, with a sighting rate of one live badger per 38 km. They also noted nine live adults, one juvenile and one dead adult incidentally. The sightings were observed at a mean distance of 245 m from the road, and the

#### Map of the South of the Divide, an area surveyed for badger presence by the Saskatchewan Ministry of Environment from mid-June to mid-July 2024.



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# **Species Spotlight:**

## **American Badger**

Taxus subspecies (Taxidea taxus taxus )

# SARA Status: Special Concern

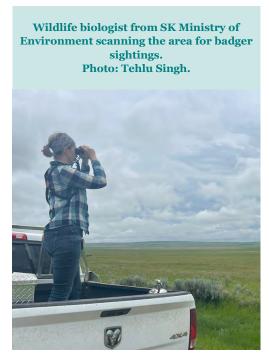


American Badger. Photo: Randy McCulloch

- A medium sized fossorial (burrowing) carnivore in the weasel (Mustelidae) family
- Four subspecies of American Badger are recognized, three of which occur in Canada; badgers occurring on the Canadian Prairie are referred to as *Taxidea taxus taxus*
- Badgers are considered "keystone species", creating burrow networks for their own purposes as well as critical habitat for many grassland species
- They are estimated to consume 2-3 ground squirrels per day, reducing a population by 50% while in the area
- Although they're not true hibernators, American Badgers decrease their metabolism and activity level to conserve energy during the coldest months

highest number was recorded in the morning. Not surprisingly, a strong correlation was found between badger activity and gopher presence, further highlighting the badger's role in controlling rodent populations. As a next step, these survey results will be used to identify badger activity hotspots and better understand their habitat preferences.

To successfully monitor the badger population in the province, the Ministry of Environment needs the support of residents. You can contribute to research efforts by reporting badger sightings through community science App platforms like iNaturalist or calling/emailing Nature Saskatchewan. Additionally, you can support badger conservation by staying alert for badgers crossing roads, respecting their space by observing them from a distance and avoiding disturbance to their burrows. By working together, we can ensure the long -term survival of this keystone species.



## Yellowhead Nature Society Road Allowance Project

Arden Bradford, Yellowhead Nature Society

February of 2025 will be the third anniversary of the Yellowhead Nature Society's Road Allowance Project. This project was initiated at the annual meeting of the Yellowhead Flyway Birding Trail Association held in Saltcoats, SK in February of 2022. Working under the Yellowhead Nature Society banner, the committee focused on the preservation of road allowances within individual rural municipalities (RMs).

In the summer of 2022 and with the permission of the RM of Saltcoats council, signs were installed on designated roads that have natural habitat that allows wildlife to flourish. The signs are an invitation to drive or walk and enjoy the many natural wonders within that environment. A recent drive revealed two Rough-legged Hawks surveying a quarter section of grassland. One perched on a tall tree on the east side and the other from a high perch on the north side, both patiently waiting for a movement in the grass.

In the winter of 2022/2023, the RMs of Orkney, Wallace, and Cana granted permission for the installation of signs on designated roads within their jurisdictions. To date, there are more than 100 signs placed throughout the RMs of Saltcoats, Cana, Orkney, and Wallace.

On May 15, 2024 the Yellowhead Nature Society was presented with an award from the Saskatchewan branch of the Regional Centre of Expertise for Sustainable Development,



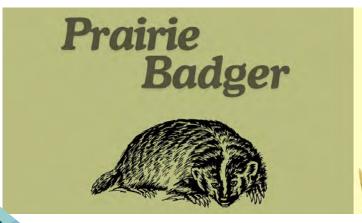
Yellowhead Nature Society road allowance sign. Photo: Morley Maier

acknowledging the importance of the Road Allowance Project.

There have been many positive comments about the Road Allowance Project and we encourage others to make presentations to their RMs and gain the opportunity to remind their friends and neighbours of the importance of preserving road allowance habitat.

This project would not have succeeded without the financial support of the Yellowhead Flyway Birding Trail Association, Nature Saskatchewan, and the many individual voluntary donations to the Road Allowance Project.

We thank you for your support and wish you a pleasant drive or walk down a country road allowance.



Learn how badgers play a vital role in grassland health prairiebadger.ca

#### Expanding Our Ability to Track Migration Through the Motus Network

Jordan Rustad, Conservation Coordinator, Nature Saskatchewan

Nature Saskatchewan has been tracking migratory songbirds for years through the Last Mountain Bird Observatory (LMBO). This is done through banding birds using aluminum leg bands. Each band has a unique nine-digit number to identify the individual and all data that was previously collected from the individual. These bands have the advantage of being relatively inexpensive and easy to apply. However, in order to track the bird's movements, another banding station has to capture the same bird. With millions of songbirds migrating through an area, it can be like trying to find a needle in a



Great-crested Flycatcher banded at LMBO.
Photo: Jordan Rustad

haystack. We have gained valuable information from banding birds, but now we may be able to track birds as they migrate in real time!

A Motus tower has been deployed along Last Mountain Lake. Motus towers are radio telemetry towers that detect when a Motus tag is within a certain distance. When birds are caught, they are banded and a Motus tag is attached to the individual. The tag will only stay on for a few months but is recorded by any tower it passes by.



Motus tower at LMBO. Photo: Jordan Rustad

It's not just songbirds that can carry tags. Shorebirds, bats, and even Monarch butterflies can carry tags! The more towers that are deployed, the better it is to track wildlife. Nature Saskatchewan is currently looking for new locations to deploy towers

to strengthen the network in Saskatchewan. There are only 10 towers in the province now, and while it is a start, there is a lot of room for growth. If you are interested in learning more, or hosting a tower yourself, please contact Jordan Rustad at jrustad@naturesask.ca.



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/contactus.

## Thank You to Our Stewards!

We dedicate the Stewards of Saskatchewan newsletter to you, our stewards. Collectively, your individual actions to conserve habitat and track species 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 conserved 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!

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



Nature Saskatchewan is a nongovernment, charitable, organization of naturalists. Our vision is "Humanity in Harmony with Nature."

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For specific program information please call our toll free number 1-800-667-4668 or contact the following:

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Shrubs for Shrikes, Plovers on Shore, Stewards of Saskatchewan banner program & Habitat Enhancement

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South of the Divide Conservation Action Program Inc.

Sprague's Pipit Recovery Team

# A special thank you goes out to our participating stewards and volunteers!

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