

Stewards of Saskatchewan

Rare Plant Rescue Doubles Down

Ashley Vass, Habitat Stewardship Coordinators, Nature Saskatchewan

Nature Saskatchewan's Rare Plant Rescue (RPR) program, initiated in 2002, focuses on elusive plant species at risk. We target nine federally-listed species that are either endangered, threatened, special concern, or believed to be extirpated from the province; and we also target seven species that are provincially rare with statuses as S1-critically imperiled, S2-imperiled, or S3-vulnerable to search for and monitor. During our field work we also record any other rare plants that we come across. Every rare plant record helps to map ranges and monitor populations.

Data collected by RPR has contributed to three of our target species, Buffalograss, Tiny Cryptantha, and Hairy Prairie-clover being placed in a lower risk category. More recently, another target species, Small-flowered Sand-verbena has been recommended by the Committee on the Status of Endangered Wildlife in Canada to be down-listed from endangered to special concern! We are excited to be able to contribute to the conservation of rare plants, which are often overlooked in the world of species at risk.

Our other stewardship programs are much more hands-off and we are able to ask our participants to keep an eye out for the target species for us, but plants pose a bigger...or should I say smaller?...problem. The plants we target can be tough to spot. They are small and cryptic, and time-consuming to search for. In order to collect data on these species, we can't ask landholders to find and count them for us, so RPR relies on a relatively small number of landholders, that have suitable habitat for target species, to allow us access to search for the plants ourselves. When a population is found we count the plants and use flags and a GPS to map out the area of occupancy. We leave the area just as we found it and hope to return to survey again about every 3 to 5 years.

RPR had an amazing field season in 2023. We doubled

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

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

All together 1,117 program participants are conserving 989,156 acres of prairie and 342 km of shoreline habitat for species at risk and other prairie species.

our field crew, which had not been done in over 10 years, but with good reason; we had a lot to do! Our focal species this year were Buffalograss, Dwarf Woolly-heads, Slender Mouse-ear-cress, Small-flowered Sand-Verbena, Smooth Goosefoot, and Tiny Cryptantha. We searched 93 quarter sections for new populations and found 19 of them contained one of our focal species. Altogether we found 270 new occurrences of federally-listed and provincially rare plants. We also returned to monitor populations on 39 quarter sections from previous years and found that 30 of the quarter sections had plants flourishing.

A major highlight was the presence of Tiny Cryptantha, which our RPR crews had never found before. Tiny, as it may be, it wasn't all that hard to find this year; there were thousands of them! We visited most of the locations thought to have once had populations of this cryptic plant, some of which had not been searched for decades, and we are happy to report that they were alive and well. We also gained some valuable identification experience, which is always a huge benefit of seeing the species in real life.

Tiny Cryptantha. Photo: Justin Kentel





RPR crew surveying rare plants.
Photo: Danica Nasedkin

Another highlight was getting to visit with 17 of our current participants and discuss the voluntary program with 21 potential participants, adding 6 new landholders to the program which now totals 96 participants conserving nearly 270,000 acres of prairie. Although RPR typically never collects plant material, we were also able to contribute to both a moss and an Echinacea research project. We are very grateful to the landholders that allowed us to collect samples and look forward to hearing how these projects turn out.

Nature Saskatchewan uses voluntary handshake agreements with landholders in an effort to conserve and collect data on target plants. We can't begin to express how grateful we are to the landholders and managers. For more information, please give us a call at (306) 780-9417, on our toll-free Hoot Line at 1-800-667-HOOT (4668), or email rpr@naturesask.ca.

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Selecting Regina's Official City Bird

Shannon Chernick, Conservation and Education Manager, Nature Saskatchewan

The City of Regina is currently selecting an official city bird! The City of Regina and members of the Bird Friendly City Committee are working together to make this happen.

Late in 2020, Nature Canada approached Nature Regina and Nature Saskatchewan about applying to certify Regina as a Bird Friendly City. A Committee was formed, including 14 organizations and community members.

Regina has joined Vancouver, Calgary, London and Toronto to become the fifth Bird Friendly City in Canada.

Selecting an official city bird is one of the criteria to maintain a community's status as a Bird Friendly City. The process began with a public nomination process which included people nominating their own bird, and commenting or liking other's suggestions. Nature Saskatchewan and the Royal Saskatchewan Museum are working with grade 4/5 students at Thomson Community School, who are piloting a Land Based Learning program this year, to narrow the list of birds down to the final five nominees.

The voting for Regina's bird will take place at beheard.regina.ca/bird-city-regina. The official city bird for Regina will be announced on January 5, 2024 which is National Bird Day!

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Small communities are eligible to be designated as Bird Friendly!

If you or your community are interested, find out more at naturecanada.ca/defend-nature/how-you-help-us-take-action/bfc/



Ashley Vass, Rare Plant Rescue Coordinator

Hi there! I'm Ashley Vass. I have been with the Stewards of Saskatchewan for 10 years this January and have had the pleasure of working many different aspects of the stewardship programs. Most recently, I have been the Rare Plant Rescue Coordinator, although I will be taking some time in 2024 to help with some important work on endangered Piping Plovers. Although born and raised in Regina, my family has roots in the Swift Current area and my favorite thing is taking the kids (and the dog) out for a hike in the prairie hills while visiting my parents at Lac Pelletier. I am so lucky to live in such a beautiful province, home to all of you wonderful stewards doing great work, no matter how big or small, to conserve our province's natural heritage for our future generations to enjoy!

Against Owl Odds: An Operation Burrowing Owl Update

Grace Pidborchynski, Habitat Stewardship Coordinator, Nature Saskatchewan

Hello program participants! I hope all has been well with everyone, and that you have gotten the chance to get out this past summer and explore our beautiful landscapes. This fall, we had to say goodbye to our long-time Operation Burrowing Owl (OBO) Coordinator, Kaytlyn Burrows, as she moved on from Nature Saskatchewan to start a new chapter in her career. I know she is going to be amazing in her new position with the Canadian Wildlife Service and continue to contribute to the important work with species at risk. She has taken great care of the program over 11 years, and we will miss her dearly!



Burrowing Owl nest with adult and young.
Photo: Grace Pidborchynski



It's hard to believe that another field season has come and gone for Nature Saskatchewan, and this summer was a busy one! With the help of our Habitat Stewardship Assistants, 22 of our current program participants were visited to discuss OBO, Burrowing Owls and how they are



faring, and what landholders and managers can do to help attract owls and maintain their habitat. We also visited 15 potential participants, with 9 of them joining the program! New participants are signed up through shared sightings as well as new landholders and managers on land that was previously enrolled in OBO. We would like to extend warm welcomes and sincere thanks to our new participants!

OBO currently has 353 participants, conserving over 210,000 acres of Burrowing Owl habitat across southern and central Saskatchewan. Our annual OBO census is currently in full swing and 36% completed (90% being the goal). So far, participants have reported 13 pairs, 52 singles, and 31 young! These are such reassuring totals, and I am optimistic the number of reported owls will increase as we continue to contact participants.

We have also had several sightings reported through our toll-free HOOT Line (1-800-667-4668). This summer was great for Burrowing Owl sightings on the Regina Plains, with 18 members of the public calling to report 9 pairs and 17 singles. We continue to encourage people to report Burrowing Owl sightings, and it is always so exciting for us to receive one! Calling the HOOT line is a great way to report any species at risk sightings

and is used to help determine the abundance and distribution of these species. Privacy is important to us, so we will never share any personal information.

This summer and fall, SOS staff had a few opportunities to attend events to connect with local communities. We hosted a Conservation Appreciation Day in Wood Mountain Regional Park where we enjoyed a locally catered meal and educational presentations, spent the weekend with nature enthusiasts at our Spring and Fall meets in Kindersley and Indian Head, attended Wild West Daze in Leader, and presented at the Ogema Library. It is always so great to meet new people and catch up with old friends.

From all of us at Nature Saskatchewan, we would like to thank all the stewards who warmly welcomed us into their homes and out on the land. We learn so much from you and your stories! If you have any questions or comments, please do not hesitate to give me a call at (306) 780-9833, call our toll-free HOOT Line at 1-800-667-4668, or email me at obo@naturesask.ca. I would love to hear from you!

Grace Pidborchynski, Operation Burrowing Owl Coordinator

Hi Everyone! I'm Grace Pidborchynski. I'm originally from Manitoba, where I grew up in a small town in the southwest corner of the province. I graduated from the University of Manitoba in the winter of 2023 and have been working with Nature Saskatchewan since May 2023. I started out as a Habitat Stewardship Assistant with Rare Plant Rescue during the summer where I gained a deeper appreciation for plant species at risk, as well as continuing to educate myself on species identification. I was so lucky to have that experience which led to my current role as the Habitat Stewardship Coordinator for Operation Burrowing Owl. Throughout my education and into today, my passion lies with environmental conservation and we are so lucky to live in a province where we can look outside to see all the biodiversity every day. I would also like to take a moment to recognize Kaytlyn for her many years of work with OBO and I am lucky to have witnessed all the care and passion she put into the program. I am very excited to have the chance to connect with people, both familiar and unfamiliar, and continue to work with the amazing people at Nature Saskatchewan.





Ferruginous Hawk that was in care and released.
Photo: Emma McKay

Back to the Wild

Jan Shadick (LSWR@sasktel.net), Living Sky Wildlife Rehabilitation

As Stewards of Saskatchewan land and the animals that call it home, we want to make sure that all of you are aware that there are resources for injured, ill and orphaned wildlife in the province. Despite operating since 2005, we continue to hear people's amazement that a place exists specifically to care for wildlife in need.

Saskatoon's Living Sky Wildlife Rehabilitation is the largest facility in Saskatchewan that cares for injured, ill and orphaned wildlife. We receive over 2000 animals a year that need our help to get back to the wild where they belong.

We provide specialized foods, medical care, proper housing and enrichment to ensure that those who can be released, will be successful upon their return to their natural habitat. Each animal is treated as an individual and given their best opportunity for a second chance. The injured who are suffering beyond repair are given a peaceful transition over the rainbow.

Prevention is an important part of our work. We provide information about wildlife coexistence daily to callers and to the people bringing in the wildlife in the hopes of reducing human impact on our wild neighbours. We also offer formal education programs within the Saskatoon area to classrooms, parks, and other community groups.

Our work on all species helps us when it comes to species at risk, so we know what works and what doesn't. We have helped over 200 species of birds and mammals over the last 20 years from all across Saskatchewan.

As a charity, we rely on donations to do this work. We spend the winters fundraising so that we can feed animals all summer. With only one full-time staff, we depend

heavily on volunteers much of the year, although we hire summer students during the busy months when the majority of the animals arrive.

To learn more about how we rehabilitate wildlife, you can watch the Staying Wild TV show available for streaming on CityTV.com: <https://www.citytv.com/shows/staying-wild/>.

If you find an animal in need, call us at 306-281-0554. We will do our best to help you find help for that animal.

For more information visit our website at livingskywildliferehabilitation.org and our Facebook page by searching for LivingSkyWildlifeRehabilitation.



Burrowing Owl on fence post.
Photo: Wilder Institute

From Boroughs to Burrows: Head-started Burrowing Owls Return to the Prairies

Graham Dixon-MacCallum, Population Ecologist, Hillary Hale, Conservation Research Intern, and Allison Scovil, Conservation Linkage Associate; ~Wilder Institute

Since 2016 the Wilder Institute has been working to help burrowing owls in Alberta using head-starting. Head-starting is a conservation technique that involves keeping animals in human care through a period they would be unlikely to survive, and releasing them back into the wild once that period has passed. Our team here at the Wilder Institute is head-starting burrowing owls by bringing juvenile owls into captivity for their first winter and releasing them the following spring as adults.

Burrowing owls lay an average of nine eggs in a nest. Of those, 90% will hatch, but often only three to five owlets will survive to fledge. When a female burrowing owl is nesting, she will lay one egg every day or so, and the eggs

hatch in the same order they were laid. The last-hatched owlets are at a disadvantage because their siblings are several days older, much larger, and better able to compete for food in the nest. As such, nestlings hatched later have a very low chance of surviving. We target these youngest owlets for head-starting, so that we can help those that need it most, and leave those with the best chance of surviving in the wild.

In 2023 we passed a major milestone, — we released a total of 26 head-started owls and surpassed our 100th owl release! The 26 owls that were released produced 12 successful nests, fledging 51 owls. When we bring owls in for head-starting we aim to collect an even number of males and females so they can be released in pairs but sometimes that isn't possible. This year we released two solo females who found a wild mate and we were happy to see another female re-nest with a wild male after her mate died. Both of those pairs produced successful nests!

Since 2016 our program has worked alongside partners to release a total of 119 burrowing owls back into the wild. Nearly six percent of the owlets fledged from head-started nests return to breed in our study area each year. This six percent return rate is very close to what we see returning from wild nests, which is evidence we're contributing to the burrowing owl population at our study area in Alberta. Our team will continue our monitoring efforts next year to continue identifying which birds return to Alberta.

In 2022, we opened the Archibald Biodiversity Centre, a conservation facility situated on 330 acres in the prairies of Alberta. This new facility allows for the expansion of the burrowing owl head-starting program by increasing the capacity of burrowing owls we can care for. To accommodate for that growth, we are creating three additional release sites this fall. Each release site will have three artificial nest burrows

Head-started Burrowing Owl.
Photo: Wilder Institute



installed for a total of nine new artificial nest burrows. These installations provide important nesting habitat for head-started owls to successfully raise their young.

As we currently conduct our work on privately managed ranches between Medicine Hat and Brooks, AB, and in the CFB Suffield National Wildlife Area, we attribute much of our program's success to the collaboration and support from our partners. The Wilder Institute is part of a community that is deeply invested in the conservation of burrowing owls and are always interested in opportunities to collaborate with new landowners in Alberta and Saskatchewan. Although head-starting is a promising tool, it's only one piece of the conservation puzzle. It will take continued teamwork and support from landowners and governments, across multiple provinces (and even countries), if we want burrowing owls to remain part of the prairie landscape we all know and love.

The Wilder Institute is the conservation arm of the Wilder Institute/Calgary Zoo. To learn more about our efforts, head over to WilderInstitute.org.

Head-started Burrowing Owl.
Photo: Wilder Institute



Milkweed monitoring participants checking plants for signs of Monarchs. Photo: Laura Poppy

Monarchs Rule the Roost this summer in SOS!

Emily Putz, Habitat Stewardship Coordinator,
Nature Saskatchewan

Exciting news this summer for the Stewards of Saskatchewan Banner Program as we launched a new expanded Monarch initiative. This included news releases, presentations, a new Monarch "Wanted" poster, a new site-specific Beneficial Management Practices (BMP) plan for Monarchs, and the pilot of our Milkweed Monitoring project! Our new BMP plan provides interested stewards with detailed information on life cycle, ID, highlights practices stewards are already doing and how they can incorporate additional recommendations to enhance and increase Monarch habitat. Our Milkweed Monitoring pilot had a few eager testers monitoring their native milkweed patches in their pasture multiple times over the summer; to gain insight on patch size, blooming time, density, and location, as well as Monarch use! Overall, this work generated 57 Hoot line callers from the public reporting their Monarchs, including 84 adults and 164 caterpillars, and an additional 9 adults and 28 caterpillars reported through Milkweed

Monitoring! This pilot will continue next year, so if you have milkweed in your pasture and would like to participate, please contact us at the details below!

Our SOS Banner Program census is well underway, with 33% of program participants responding with their species sightings so far. To date, stewards have reported 670 adult Barn Swallows, 220 chicks, and 96 nests; 59 adult Ferruginous Hawks, 17 chicks, and 16 nests; 2 Short-eared Owls; 20 Badgers; 80 Sprague's Pipits; 6 Bobolink; 64 Common Nighthawk; 102 Northern Leopard Frogs; and 12 adult Tiger Salamanders. We had an unexpected highlight this summer from a new participant who had nearly 1,000 juvenile Tiger Salamanders call their pond home! In addition to the numbers above from the pilot project, we have also had 39 adult Monarchs and 38 caterpillars reported through our census so far!



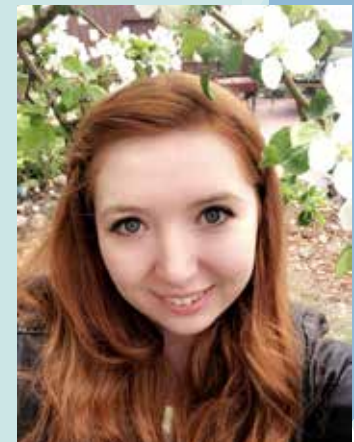
Monarchs on nectaring plants. Photos: Val Thomas (left), Raeleen Fehr-Rose (right)

The SOS banner program now has 278 participants with just over 346,000 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.

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'm very excited to have found a home coordinating the Shrubs for Shrikes, Plovers on Shore, and SOS Banner Program! I look forward to many future summers with these programs, and future visits with our wonderful participants! While not out in the field scoping out Species-at-risk, I live on my 40-acre property by Siltou, SK with my two dogs, two cats, two horses, a goose, and 12 ducks. And one very understanding and loving partner Evan!





Kaytlyn looking out at the beautiful vast prairie landscapes from a Cypress Hills look-out. Photo: Ashley Vass

A Fond Farewell

Kaytlyn Burrows

Hello fellow conservationists and nature enthusiasts! This note comes with a very heavy heart as I am saying goodbye to Nature Saskatchewan and my position as a Habitat Stewardship Coordinator. I have been with Nature Saskatchewan since 2012 and in this position since 2013 and it is one that I have taken great pride and passion in. The work that the Stewards of Saskatchewan programs do are so important and have been a large part of my life for the last decade.

A major part of that work is the relationships that I have built with the stewards of these programs. I have had the pleasure of meeting and knowing many of you for several years and it is one of the greatest joys I'll be taking away with me. Thank you for making my job so enjoyable and leaving me inspired and hopeful for the future of prairie conservation. I want to also say a special thank you to my amazing co-workers (past and present) who have become lifelong friends. You are all intelligent, strong, and inspiring! Thank you all for making my time here so wonderful!



Kaytlyn poses next to an educational Burrowing Owl. Photo: Emily Putz

Nature Saskatchewan Staff Update

Rebecca Magnus, Species at Risk Manager, Nature Saskatchewan

This fall, we sadly said farewell to longtime staff member Kaytlyn Burrows. As she starts her new journey, Kaytlyn will continue important recovery work for species at risk in Saskatchewan. We thank Kaytlyn for her over 11 years of hard work and dedication to Nature Saskatchewan and the Stewards of Saskatchewan programs and wish her success in her next chapter.

Please join me in welcoming Grace Pidborchynski (bio on page 3) to the Habitat Stewardship Coordinator role. Grace has been working with Nature Saskatchewan's Stewards of Saskatchewan programs since May 2023, so this transition to the coordinator role has been seamless with her familiarity and commitment to the programs already. Feel free to reach out to Grace at obo@naturesask.ca for any Burrowing Owl & Operation Burrowing Owl program and/or partner needs. She is eager to connect with you all.



Rebecca Magnus, Species at Risk Manager

Hi there! Welcome new participants and hope everyone is doing well. 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 with 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** at: 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. From my family to yours, wishing you all a great year ahead!



Photo: Ashley Vass

Attracting A Shrike for Pest Control

Emily Putz, Habitat Stewardship Coordinator,
Nature Saskatchewan

Loggerhead Shrikes make for great neighbours on the farm, hunting large amounts of prey to feed their hungry chicks' stomachs. Their prey includes many species considered pests such as grasshoppers, caterpillars, beetles, mice, voles, even young gophers. They will catch anything they can carry! To attract a female, the males will show off their hunting skills by catching more prey than they need and hanging it in a display. This display also marks the boundaries of their territories from other males. Both parents will push their hunting skills to the max to establish a cache while prey is plentiful, storing it away in their larder trees for later in the season. Cutting down the pest populations right when you need it! These fierce little predators are huge helpers around the farmyard, so how do you invite them to call your place home?

Loggerhead Shrikes are looking for a few things in particular while house hunting. This species isn't called the butcher bird for nothing, and when scoping a new home, they are on the look out for ample spots to hook and hang their prey. Thorny shrubs like Buffaloberry and Hawthorn work best, and

barbed wire makes a great nearby accompaniment. Not only will the thorns provide hooks, they double as a spiky deterrent to possible predators. In their hunt for spikes, shrikes have even been known to nest in balls of barbed wire! Preferably there would be several thorny opportunities around their nesting site, as they will use a different tree than they are nesting in for their "pantry". The area around the nest should be open to allow them to hunt. Grazing or mowing surrounding grass can help encourage nesting by providing opportunities for shrikes to see prey and predators. They also prefer die-back branches, as taller dead branches make great look-out perches. As long as they aren't too tall to also make great predator perches.



Hawthorn thorns. Photo: Nature Saskatchewan

Shrikes are also surprisingly social! While they might not return to the same spot each year, they are more likely to return to an area with other shrikes. If you have an ample shelterbelt, you may find a shrike neighbourhood setting up! In the Spring, several neighbouring shrikes can gather together to call and display, helping newbies find an adequate nesting territory nearby other successful veteran shrike partners. This also encourages shrikes to return to the same area the next year, especially if they have success in their chick rearing there!

The Shrubs for Shrikes program has 323

participants conserving almost 157,000 acres of habitat. Based on our census results, many shrikes had success this year! Our Shrubs for Shrikes census is only 49% complete and already 57 pairs, 79 singles, and 34 juvenile shrikes have been reported by our participants! 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.



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!

Adult with juvenile Loggerhead Shrike. Photo: Alison Baudru (left), Boyd Coburn (right)



Photo: May Haga



Nature Saskatchewan is Turning 75 Next Year!

Celebrate this milestone with us
Stay tuned to our website for details and upcoming
events for Nature Sask's 75th
www.naturesask.ca

Wild Burrowing Owls Return to the Manitoba Mixed-Grass Prairies!

Jessica Riach, Field Coordinator, Manitoba
Burrowing Owl Recovery Program

This was an exciting year for the Manitoba Burrowing Owl Recovery Program. This year we had a 2022 banded young return to its natal. This owl was successfully raised by a pair that were reintroduced in 2022 by MBORP. If that wasn't exciting enough, this banded returnee nested with a wild female owl and successfully fledged five young! This is the first time since the inception of MBORP that we have observed a young burrowing owl return and successfully nest and fledge young!

The wild burrowing owl population has increased over the last four seasons in southwestern Manitoba. There has also been an increase in successful wild nests. In 2023, MBORP banded fourteen young from wild nests. In most cases in the last four seasons, wild burrowing owls have selected artificial nest burrows to nest even with the presence and access to natural burrows. An artificial nest burrow is made from a large plastic bucket (5 to 15 gallons) and a long section of weeping tile (8-10 ft long). The bucket acts as the nest while the weeping tile acts as the tunnel to access the burrow. These are buried into the ground with the open end of the weeping tile exposed at ground level to allow access, like a ground squirrel or badger burrow. Artificial nest burrows add extra protection from digging predators. They also

Burrowing Owl. Photo: April Stampe



Burrowing Owl with satellite transmitter. Photo: April Stampe

hold up well with cattle grazing around them. Many landowners in southwestern Manitoba have allowed MBORP to install these burrows in pasture to provide more available nesting options for burrowing owls.

Burrowing owls are a migratory species in Canada arriving in Canada April and May and heading south towards Mexico in the fall for the winter. Very little is known about their migratory path, stop-over locations, and length of time it takes to arrive at the wintering grounds. This is one of the largest knowledge gaps for burrowing owls. MBORP and other organizations across Canada are working collectively to ensure burrowing owls remain in Canada. This year, we were lucky to have Dr. Troy Wellicome, Species at Risk Biologist with the Canadian Wildlife Service install satellite transmitters on four Manitoba burrowing owls. We are hoping that these owls will provide important data regarding migratory movements on their way to their wintering

sites and provide some insight on where the owls are heading for breeding in subsequent seasons, if they are not returning to Manitoba.

All the work we do wouldn't be possible without our project partners, Souris River Watershed District and the Assiniboine Park Zoo. A huge thank you to the many landowners that we work with every season that allow MBORP staff access to their land to observe burrowing owls and establish new nest sites for returning owls. We also could not do this important work without the financial help of our sponsors, donors and funders. Thank you to our loyal supporters who donate through Canada Helps. A tremendous thank you to Manitoba Beef Producers, TC energy, Brandon Area Community Foundation, Winnipeg foundation, Prairie Originals, Enbridge and Habitat Stewardship Program.

SPECIES COMPARISON:

Piping Plover

(*Charadrius melodus circumcinctus*)

ENDANGERED



Photo: Nick Saunders

Killdeer

(*Charadrius vociferus*)

NOT AT RISK

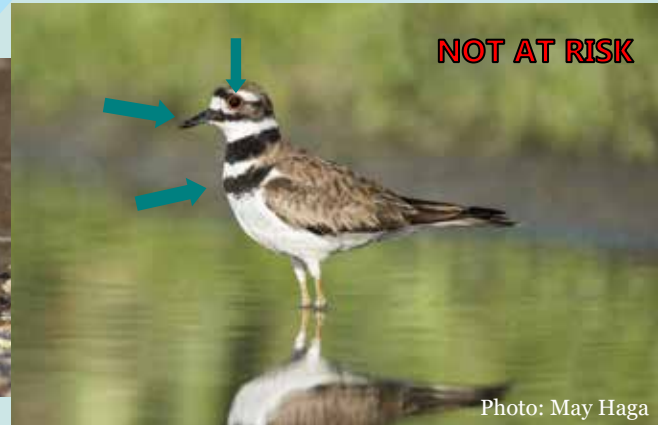


Photo: May Haga

Distinctive features:

- Both birds have a black head band but Piping Plovers have a single black band on the neck, whereas killdeer have 2 neck rings, and a much more prominent mustache.
- Both are white underneath with Piping Plovers having a grey back and head, while Killdeer are brown.
- A Piping Plover's bill is orange with a black tip and their legs are also orange while a Killdeer's bill is black and their legs are dull yellow to brown.
- Piping Plovers have large black eyes with a thin yellow eye ring and Killdeer have a red eye ring.
- Killdeer are slightly larger than Piping Plovers.
- Killdeer are common while Piping Plovers are endangered. Major threats include habitat loss and degradation, predation, and changes in water levels.

Fierce and Picky Plovers on the Shore

Emily Putz, Habitat Stewardship Coordinator,
Nature Saskatchewan

Fierceness comes in small packages with Piping Plovers! Despite being one of the smaller shorebirds, male plovers give their all in everything they do over the summer breeding season. Males arrive first to scope out the perfect spot to set up a territory, often fighting off other males. They have even been known to chase and bite the legs of other larger birds! Plovers look for the perfect shoreline, preferring bare ground, with very sparse vegetation, looking for cobble and gravelly sand. This habitat allows them to blend in best while being able to clearly watch for predators and prey. The males will make several scrapes (undeveloped nests) within their territory and, once they have attracted a female, the pair will inspect and choose the ideal one to line with pebbles for their nest.

Piping Plover nest. Photo: Kaytlyn Burrows



If you spot a plover like bird, look for the right habitat markers and for rings around the bird's neck. If there are two rings, you are likely looking at a Killdeer; a tricky look-a-like that will nest everywhere from mudflats to parking lots. If you see one ring, and your habitat sounds just like above, then you've got yourself a plover!



Broken wing display (above) and adult Piping Plover (below). Photos: Emily Putz

Piping Plover males are also superstar dads! Known for their fierce dedication to their young, plovers will perform a broken wing display, squawking loudly and dragging their wing, to draw predator attention onto themselves and away from their young. They also pull more than their weight in the chick rearing and are last to leave, leaving after the females once the chicks are fledged!

This year there were lots of great Piping Plover dads (and moms!) on the shorelines. Our Plovers on Shore census is 81% complete with 12 adults and 8 juveniles reported. This number is expected to increase in the upcoming weeks, as results from this year's on-the-ground basin searches have yet to be compiled. These basin searches were in preparation for the upcoming prairie-wide census in 2024, which Nature Saskatchewan will help coordinate.

Plovers on Shore has 67 participants conserving 213 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.





Prairie Wetlands are Key for Breeding Swallows

Mercy Harris (mercy.harris@usask.ca),
MSc. Graduate, University of
Saskatchewan

In Saskatchewan, we are fortunate to have many songbirds fill our skies during the summer, including several species of swallows. Despite the widespread distribution of swallows across the province, many species have declined over the past fifty years, including well-known species like the Barn Swallow. It is believed that these declines could be due to changes in the insect prey that these birds eat; however, before we can investigate whether this is true, we need to know more about the feeding ecology of swallows in the prairies. To do this, my master's project investigated what habitats Barn Swallows and Tree Swallows use for foraging and what insects they are eating while they are foraging. The goal of this work was to identify what habitats and prey resources are important for swallows, and to compare the preferences of the two species.

To identify where swallows are foraging, I attached miniature GPS tags to female swallows that recorded a bird's location every ten minutes. The points recorded by the GPS tags allowed me to see where swallows were traveling to forage, and to identify what types of habitats they were using. Specifically, I looked at how much birds used three broad categories of habitat: wetlands, areas planted with annual crops, and upland areas that were uncropped such as pastures or field margins. I found that both Barn and Tree Swallows demonstrated a preference for foraging over wetlands, but avoided crop fields. These results indicate that even though wetlands comprise only a small percent of land in many agricultural landscapes, they are disproportionately highly important habitats where swallows go to search for insect prey.

To examine diet, I collected fecal samples from birds. These fecal samples contain the DNA of digested insects, and a process called "DNA

Wetland Wednesdays

LeeAnn Latremouille, Saskatchewan Breeding
Bird Atlas Coordinator, Birds Canada

Have you ever heard a strange sound from a slough and couldn't figure out what it was? Or wondered what kind of mother duck has all those ducklings in tow? If so, you may want to take part in Birds Canada's latest learning program – MarshWatch!

MarshWatch is a free 10-part webinar series designed specifically for the prairie provinces. We'll dive into tips, tricks, and behavioural cues to identify ~50 species of wetland birds and frogs by sight and sound. The gentle interactive pace of less than 10 species per week means you won't



Canvasback. Photo: May Haga

Here's what a few participants had to say about the 2023 MarshWatch programming:

"This was an excellent, interesting and enjoyable series. I have taken other bird ID classes over the past few years, but feel this one has been the best." – Anonymous

"I loved this series. The tips and tricks to IDing especially made it worth while. LeeAnn was an engaging host and her love of the wetlands and the creatures in it drew you in and heightened interest in them." – Linda Olbort

"Our family of four enjoyed this program so much. We are beginner to intermediate birders, and have enjoyed expanding our awareness of the critters that live right outside our doors." – The McInnes Family

To learn more and register visit birdscanada.org/bird-science/marsh-watch. You can also view the 2023 webinars and take the quizzes if you don't want to wait. We hope you join us!



Horned Grebe. Photo: May Haga



Virginia Rail. Photo: John Conkin

feel overwhelmed. We'll also discuss the importance of wetlands to the overall ecosystem and highlight connections to other habitats.

The 2024 program takes place online every Wednesday evening from March 27 to May 29. Recordings are made available soon after each session, so you never have to worry about missing out. Optional quizzes with helpful feedback accompany each session and guided walks at select locations during the summer months add real-world training. There is also the opportunity to collect species checklists at any wetland you visit.

With content you won't find in a field guide, there is something for everyone in this series!



Mercy releases a Barn Swallow that has been fitted with a GPS tag. The bird will be recaptured two days later to retrieve the tag and download its data. Photo: Christy Morrissey

metabarcoding” can use that DNA to identify the species of insects that a bird ate. I found that both Barn and Tree Swallows frequently ate crane flies (emergent insects that have their larval stage in wetlands) and houseflies. Interestingly, nestling swallows ate crane flies and other emergent insects significantly more frequently than adults, and birds’ diet composition was affected by the amount of wetland present near the birds’ nest. Taken together, this suggests that wetlands shape the diet of swallows and are an important source of insect prey.

The results of my study indicate that in Saskatchewan, wetlands are important as

both foraging habitat and sources of prey for swallows, especially nestlings. The fact that Barn and Tree Swallows largely used the same habitats and ate similar types of insects is interesting given that Barn Swallows are not usually associated with wetland habitats. This raises the question of whether there are other species for which we don’t yet fully appreciate the importance of wetlands! Overall, this study adds to the already large body of evidence emphasizing how important wetland conservation is for Saskatchewan’s wildlife. Whether we’re conserving wetlands for waterfowl, swallows, or other wildlife, they are essential to keeping our living skies healthy and biodiverse!



This female Tree Swallow wore a GPS tag that recorded her location during foraging every ten minutes for one day. Photo: Christy Morrissey



Mercy visits a Tree Swallow nest box to monitor nestlings and collect fecal samples. Photo: Christy Morrissey



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.



Prairie fens may or may not have pools of water, such as these, visible at their surface. Photo: Sarah Vinge-Mazer

Prairie Fens: Saskatchewan's Little- Known Gems

Sarah Vinge-Mazer, Botanist, Saskatchewan Conservation Data Centre

What looks like a bog, is wet like bog, and is important for biodiversity like a bog?
It's a fen!

A fen is a wetland that seems “boggy” – but unlike a bog, which only receives its moisture from rainfall, a fen is kept wet by mineral-rich groundwater near the soil surface.

If you travel to northern Saskatchewan, you will see both bogs and fens in the landscape. But did you know that fens also exist on the prairie and are special places worthy of conservation?

Saskatchewan belongs to an exclusive club, since prairie fens are rare across North America. They occur in a few states south of the border, where in some cases they are protected. They have not been given much attention in Canada until recently. The Saskatchewan Conservation Data Centre is working to better understand our province's prairie fens and whether they are unique from others in North America.

Since fens are constantly wet, old

plant matter has a hard time breaking down and builds up as peat soil over thousands of years. These unique conditions produce a habitat for a special suite of plants to thrive where other common wetland plants, like cattails, cannot.

Plants that are common in the north are seen only in these fen habitats far to the south: bog birch, tufted club-rush, sundew, and cotton-grasses can all be found in this unique habitat. So far, four orchid species have also been found in Saskatchewan's prairie fens: yellow lady's-slipper, hooded ladies'-tresses, yellow bog/fen twayblade,



Small-yellow Lady's-slipper is a showy orchid found in prairie fens. Photo: Sarah Vinge-Mazer

and northern green bog-orchid. The endangered small white lady's-slipper is known to occur in prairie fens in the United States but has not yet been found in

Saskatchewan's sites.

Fens are sometimes drained in an attempt to turn them into agricultural land, but they are important to maintain on the landscape. Besides housing rare plant species, fens play an important role in filtering water, holding and slowing runoff, recycling nutrients, and providing habitat. The northern leopard frog, a sensitive species that is declining in Canada, can be found in Saskatchewan's fens!

Do you have boggy land (with few or no cattails) and are located on the prairie? You might have a prairie fen! If you want to chat about this unique habitat on your land, contact sarah.vingemazer@gov.sk.ca.

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

Funding Available to Landowners in Southwestern Saskatchewan

Chet Neufeld, Executive Director, Native Plant Society of Saskatchewan

The South of the Divide Invasive Alien Species Strategy aims to help landowners in southwestern Saskatchewan with weed management and support species at risk, in part by providing matched funding to support on the ground activities. The project is a collaboration between the federal government and local non-profit organizations lead by the Native Plant Society of Saskatchewan.

“Ranchers are key to conserving and managing native prairie and we know they’re doing a great job, but aggressive weeds like Leafy Spurge put a strain on farm families and the land, so we’re trying to help in any way we can” says Chet Neufeld, Executive Director of the Native Plant Society of Saskatchewan.

Dollar for dollar matched funding is available for landowners with native prairie who have implemented or plan to implement weed control. Eligible costs include herbicide and application costs, costs for sheep or goat grazing, expenses from acquiring biocontrol (ie. beetles), and in some cases, fencing or mineral block costs, if it can be demonstrated that the fencing helps to control weeds or helps species at risk. Other costs may also be eligible if they can be proven to manage weeds or improve conditions for species at risk. Those who are approved for matched funding will simply need to submit bills for the total cost and a cheque will be issued for

half the amount. Funding is limited and not guaranteed to everyone who applies.

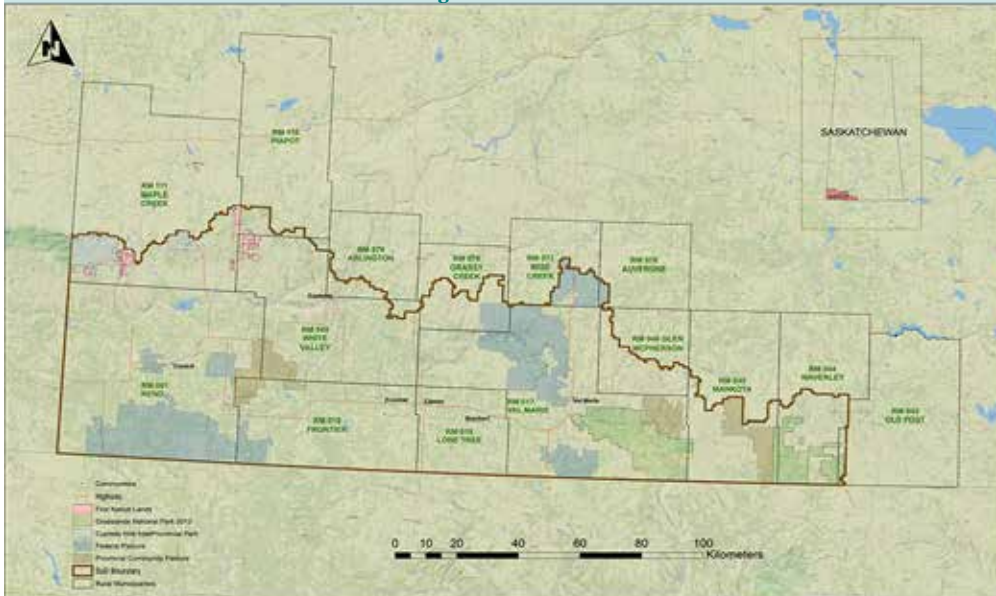


Leafy Spurge easily invades beautiful native prairie. Photo: Ashley Vass

The South of the Divide region, located in the southwest corner of Saskatchewan, is comprised of the rural municipalities of Reno, Frontier, Lone Tree, Val Marie, most of White Valley, and parts of Maple Creek, Piapot, Arlington, Grassy Creek, Wise Creek, Auvergne, Glen McPherson, Mankota, Waverley and Old Post. The 14,157 km² region is critically important to Saskatchewan’s ranching industry and contains some of the largest and best quality native prairie remaining in the province, home to many rare plants and animals.

To see if you qualify for matched funding or for more information on the program, please contact the Native Plant Society of Saskatchewan at info@npss.sk.ca.

South of the Divide region of southwestern Saskatchewan



Species Spotlight: Macropis Cuckoo Bee

(*Epeoloides pilosulus*)

SARA Status:
ENDANGERED



Macropis Cuckoo Bee. Photo: Ryan Oram, Royal Saskatchewan Museum

- One of the most uncommon bees in Canada.
- Was thought to be extinct as it had not been seen since the 1950s, until it was rediscovered in Nova Scotia in 2002 by Dr. Cory Sheffield, Curator of Invertebrate Zoology at the Royal Saskatchewan Museum
- A Macropis Cuckoo bee has just been identified from samples taken near Wood Mountain, SK. last found near that same location in 1955!
- This species is a nest-parasite (hence cuckoo) of only one species of bee in Canada. Macropis Cuckoo bees are entirely dependant on the presence of Macropis bees; who, in turn are entirely dependant on the presence Fringed Loosestrife.
- The Macropis bee is dependant on the Loosestrife for oil and pollen. The Macropis Cuckoo bee sneaks into the Macropis bee nests and lays it’s own eggs on those food provisions.
- Extremely rare. One of only two species of the *Epeoloides* genus in the whole world and the only one in the Western Hemisphere.



Native grasses provide great forage as well as habitat for many native songbirds.
Photo: Krista Connick Todd

Creating Habitat AND Forage for Livestock - Seeding Native Species

Krista Connick Todd, Rangeland Agrologist, South of the Divide Conservation Action Program Inc.

A variety of species at risk prefer native prairie for their home. Unfortunately in Saskatchewan native prairie is in limited supply, with less than 20% remaining in our province. Seeding cropland to native species is a viable option for increasing the amount of habitat available while also providing a valuable grazing resource.

While seeded native grass does not function exactly the same as true native prairie, using a diverse grass mix can mimic many of the functions. Dr. Mike Schellenberg, Science Lead for SODCAP's Living Lab-Central Prairies project, has years of experience with seeding native species in southwestern

Saskatchewan. He explains "restoration of plant cover is the start, not the end. Plants have unique microbial communities that will take time to develop."

Using native grass species to recreate prairie habitat takes time, but evidence has shown that grassland birds will use seeded native fields. Kiel Drake, Director, Prairie Region with Birds Canada has been measuring bird populations in southwest Saskatchewan for the past three years. Kiel reports "I can share that I have witnessed bird use on newly restored grass that was only 3 or 4 years old. It mostly had more common birds like vesper sparrow, horned lark, and western meadowlark already 'using the land', as we infer by birds singing to advertise for mates. But significant to memory is that Sprague's Pipits were detected at a few of these points." This is very exciting for us in the conservation world, to know that habitat can physically be created

for future generations. Seeded natives also have good resiliency and a good reliable forage source, particularly for late summer and fall grazing. Many native species maintain their protein content longer into the fall than commonly seeded tame grasses, providing valuable fall and winter forage.

Ranchers within the northern great plains of Saskatchewan have had proven success in seeding natives. Keys to success include:

- Proper site preparation - pre-seeding weed control and seed bed preparation is imperative

- Proper seed choice - selecting a seed mix to meet your individual needs and soil type will help lead to success. Check your seed certificate to make sure the seed is weed free!

- Proper seeding technique - native grasses prefer a firm seed bed and shallow seeding depth.

Dr Schellenberg suggests "its best to consider seeding more than one species to cover extreme weather events. If species are present that cover the spectrum of weather conditions, you will have vegetative cover. Ideally one needs species of differing root architecture; fine vs coarse, shallow vs deep."

SODCAP is currently offering a variety of excellent funding programs to encourage the seeding of native species. If you are interested in our programs, please contact Kelly Williamson or Krista Connick Todd with SODCAP Inc.

Kelly Williamson, PAg:
easttech@sodcap.com, 306-582-7774

Krista Connick Todd, PAg:
westtech@sodcap.com, 306-671-7656

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!

Building Connections between Generations through Appreciation for Healthy Grasslands

Shirley Bartz, Education Coordinator, SK Prairie Conservation Action Plan

With the cascade of fall leaves, our children and grandchildren return to school, and the SK Prairie Conservation Action Plan (SK PCAP) gears up to bring increased awareness about native prairie ecology to elementary and high school kids in Saskatchewan.

The SK Prairie Conservation Action Plan has had education of school-aged children as a goal in their framework since 2003 and offers educational programs to children that increase their awareness of the importance of native prairie, biodiversity and species at risk. These free programs are offered during Agribition, Native Prairie Appreciation Week, and through two curriculum-based in-class education programs.

Last school year (2022-23), SK PCAP's Education Coordinator, Shirley Bartz, brought the in-class programs to over 450 students, from Kindersley and Nipawin, to Eastend and Assiniboia. It was a busy year, and Shirley is looking forward to another just like it! These interactive programs are action-packed, fun and informative for the students, and include action plans that keep the kids thinking of prairie stewardship long after Shirley leaves their classroom. The ultimate goal of PCAP's education programs is to build our children's understanding of native prairie and what it means to live in this prairie community.

SK PCAP's curriculum-based programs are Taking Action for Prairie and Adopt A Rancher. Taking Action for Prairie is delivered to 6th, 7th and 8th graders in the classroom and focuses on biodiversity, species at risk, ecological footprints and water systems, depending on the grade. Adopt a Rancher is delivered to 10th grade students partly in the classroom, but also through a field day spent visiting a working ranch near their school.

Adopt A Rancher is a program that bring students and ranchers together to build understanding of what it takes to run a livestock operation on native prairie pastures. Students spend a few weeks in class studying a ranch profile provided by the rancher. They map the ranch landscape, waterways and wetlands and identify the

different habitats on the ranch with satellite imagery. Next, they develop a simple research project with questions to answer during their field trip to the ranch (bus expenses paid by SK PCAP). During this one-day visit, the rancher talks with the students about range management, showing them unique features and challenges of the ranch, and then allows them to collect data for their class research project.

Adopt a Rancher allows students to see and experience native prairie, when they otherwise may never have had the chance. Students who take part in Adopt A Rancher are beginning to look forward to university, the job market, and at their adult lives, where they will be decision-makers within the next 5-10 years. Their decisions will be crucial in directing local and international economics, provincial water management, industrial development and determining how we will conserve the last of the most endangered ecosystem on our continent – unbroken native grasslands.

Shirley is looking to connect with ranchers in Saskatchewan who want to share some of their experience as a manager and steward of native grasslands. Participating in AAR means the rancher will spend about an hour filling out a ranch profile, a few more hours collaborating with a grade 10 teacher in their area, and 2-3 hours of interaction with students on the day they visit their ranch. SK PCAP pays participating ranchers a \$250 honorarium for their time.



Increasing the next generation's understanding of how cattle keep our grasslands healthy and what it means to take care of the land is invaluable.

If you are interested in getting involved in Adopt a Rancher, or have questions about our programs, check out our website at:

<https://www.pcap-sk.org/> or contact PCAP's Education Coordinator, Shirley Bartz at pcap.education@gmail.com.

Rancher, Tom Harrison, teaches grade 10 students about range management in SK PCAP's Adopt A Rancher program. Photo: Carolyn Gaudet, SK PCAP



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

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Saskatchewan Conservation Data Centre
Saskatchewan Prairie Conservation Action Plan
SaskPower Shand Greenhouse
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!

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

