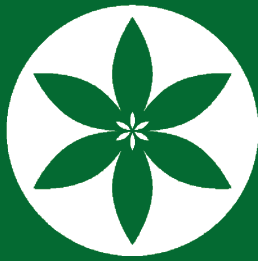


Newsletter of the Native Plant Society of Saskatchewan



R O O T S

Vol. 24 No. 1

Spring 2019



Anemone patens

Prairie Crocus

Photo credit: Chet Nuefeld

Native Plant Society of Saskatchewan

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Roots is a quarterly publication of the Native Plant Society of Saskatchewan (NPSS) and is one of the benefits of membership. Members are invited to submit articles, news, views, photographs and comments. Views expressed by the authors are not necessarily those of the NPSS.

Deadlines: Submission Publication

Winter Issue: November 1 December 15

Spring Issue: February 1 March 15

Summer Issue: May 1 June 15

Fall Issue: August 1 September 15

Membership Dues (Year End November 30th)

Individual \$30 Family \$45

Student \$15 Non-profit \$100

Corporate \$200 Life \$500

Please contact the NPSS office for information about the lifetime membership instalment payment option.

Get your photo on the cover of... **ROOTS!**

Submit your Saskatchewan native plant photos for future cover consideration to: info@npss.sk.ca

Executive Director's Message

Chet Neufeld

Welcome to spring! Being a plant enthusiast, winter is never my favourite season but during those dark days of February when we hit -50 °C, I thought that I'd never see another spring again! Luckily, all that is a distant memory now and things are changing everyday; new wildflowers are blooming, new leaves are bursting out on trees and the days are growing longer and warmer. Daily change is also happening here at the NPSS. Here are just a few of the things that have recently happened:

- One of our long-time directors, Nadia Mori, has recently stepped off the board to pursue a full-time acting career. I am grateful for having been given the chance to get to know her and hope that our paths cross in the future. Nadia has made countless, valuable contributions to the NPSS and to Saskatchewan's native plant communities in general through her work with the Ministry of Agriculture and Society for Range Management, to name a few. One of her last "acts" of duty for the NPSS was a one-woman show about invasive species, which she performed at our annual general meeting and conference in February. We wish you all the best Nadia!

- We have hired a new contractor, Hilary Pinchbeck, who will be assisting us with our Rare Plants and Ranchers project. Hilary comes with a wealth of knowledge and experience regarding prairie ecology. She comes to us from Manitoba but will be working out of Val Marie in order to better focus on the properties in the southwest, which is our priority area for 2019. Welcome to the team!

- 2020 will be the NPSS' 25th anniversary, and we're gearing up for the celebration! We're refreshing the NPSS brand with a more cohesive look and innovative approach while still bringing you great information and experiences. BrandVan, a national social impact program, is helping us to create a path forward for the NPSS. One component of this update is our newsletter; you may have noticed that the last issue came with a facelift and a new name. **Roots** was chosen as the new name because it communicates strength (of our local ecosystems and our society) and it is a tip of the hat to the society's last 25 years and all of Saskatchewan's great conservationists who have come before us. Each **Roots** issue in 2019 will look slightly different as we test different formats. Your feedback is encouraged, and in spring of 2020 we will debut the fan-favourite as the permanent format of our newsletter. If you have any other ideas as to how you'd like to see us celebrate our anniversary, please let us know.

I hope to see you out this summer!

Chet Neufeld

Summer Field Tours

Some of us thought it would never arrive, but spring is finally here and with it comes another exciting line-up of summer of field tours. It's getting harder and harder to outdo ourselves, but we're going to give it our best in 2019. All tours are for all ages and experience levels. Here's what we have planned:

Lodgepoles Under Living Skies

Date and time: June 21-23, 2019

Cost: Varies – see registration form or online registration

Location: Cypress Hills Interprovincial Park,
Centre and West Blocks

Description: If there is one field trip to take in this summer, this is it! We have collaborated with the Montana Native Plant Society to bring you a multi-day international event and have also invited guests from the Alberta Native Plant Council. This will be the biggest tour we have ever hosted, and we expect up to 150 people! Of course, with this many people, we will host concurrent field tours to minimize our impact on the landscape and ensure a good experience for all. The field tours will be repeated throughout the weekend so that everyone has a chance to visit the places they want to see. Every field tour will offer many opportunities: great views of the amazing landscapes, unparalleled hiking and botany, and the chance to connect with plant enthusiasts from Montana, Alberta and Saskatchewan. Rare plants abound in the Cypress Hills, and many can only be found in Saskatchewan here. Some of the trips include exploring fescue prairie on the Native Prairie Trail, walking under the towering lodgepole pines of the Whispering Pines Trail, visiting Fort Walsh National Historic Site, searching for rare moonworts in a Centre Block meadow, taking in the rugged beauty of the Conglomerate Cliffs, ascending War Bonnet Hill and exploring the Mystery Rocks. Both War Bonnet Hill and the Mystery Rocks are located on private land, so this tour is one of the

Upcoming Events

Forages in the Field Workshop:
Where Reclamation and Agronomy Meet
June 19, 2019
Kisbey, SK

For more information, e-mail: office@saskforage.ca

2019 Native Prairie Appreciation Week
June 16-22, 2019
Across Saskatchewan

For more information, go to: <https://www.pcap-sk.org/upcoming-events/npaw>

2019 Nature Saskatchewan Spring Meet
June 14-16, 2019
Eastend, SK

For more information, go to: www.naturesask.ca

To submit your native plant related event to our events list, send your information (including date, contact, phone number and location) to info@npss.sk.ca.



Left: Lodgepoles Under Living Skies Tour will provide the opportunity to ascend War Bonnet Hill and explore the Mystery Rocks, Cypress Hills West Block.
Photo: Chet Neufeld.

only opportunities you'll have to visit these special places. Friday's events also include botanical illustration workshops, presentations on the history, geology and flora of the Cypress Hills, kids' activities and socializing. All-day youth programming is also provided on Saturday by the Meewasin Valley Authority for parents who would like to take longer/more difficult trips but have children who can't keep up. Meals (including gluten free, non-dairy and vegetarian/vegan options) are also available during the event. Our base camp for the weekend will be Camp Shagabec, and accommodations are available in both dorm cabins and tenting sites on the property. There are also many camping options within the park and motels in Maple Creek. Please see the event itinerary document for full details. Registration will be done through the Montana Native Plant Society, as they are financing the event. Payment is in U.S. dollars and can be done online at <https://www.mtnativeplants.org/annual-meetings/> or by filling in the registration form, enclosing payment (again, in U.S. dollars) and mailing it to the address on the form. The Montana Native Plant Society urges Canadians to register online.

Botanizing the Badlands

Date and time: July 6, 2019, 9 am – 4 pm

Cost: \$10 (includes free museum tour).

Registration not necessary.

Location: Avonlea Badlands, approximately 10 km from Avonlea, SK. Meet at the Avonlea Heritage Museum.

Description: The Avonlea Badlands are truly a remarkable and unique environment. This area represents some of the driest and most inhospitable land in the province but, in that Martian landscape, life abounds. Even on the sun-baked clay flats we will find diminutive but hardy wildflowers that have adapted to living here, such as Colorado Rubberweed (*Hymenoxys richardsonii*), Canescent Aster (*Dieteria canescens*), Bracted Vervain (*Verbena bracteata*) and Gumbo Evening Primrose (*Oenothera caespitosa*). But it's not all desert; the badlands contain moister habitats in ravines where water and shade are more abundant. These areas host a completely different suite of species with lush and larger wildflowers such as Gaillardia (*Gaillardia aristata*), Showy Milkweed (*Asclepias speciosa*) and Two-grooved Milkvetch (*Astragalus bisulcatus*). Due to the rarity of this type of landscape in the province, we also have a good chance of spotting rare plants. In the morning, local guides will lead you through hoodoos and points of interest and then return to Avonlea for lunch. In the afternoon we will head back out and continue to explore on our own. Our goal is to have a bioblitz of sorts by compiling a list of all the plant species that we find. This will be handed over to museum staff to use in educational and tourism materials to help bring awareness to this special place. If you plan to arrive the night before or stay for the weekend, Dunnet Regional Park (www.dunnetpark.ca) is an excellent option for camping, and the Claybank Brick Plant National Historic Site is nearby.



Above: Avonlea Badlands Photo: Tourism Saskatchewan.



Above: A healthy wetland. Photo: Charles Deschamps.

Wetlands and Climate Change

Charles Deschamps - Resource Specialist at Ducks Unlimited Canada

Climate change is part of our new reality. Carbon dioxide and other greenhouse gas emissions contribute to more frequent and extreme weather events across our province. These weather events are devastating and result in billions of dollars in property damages, reduced crop yields, and increased nutrient runoff that pollutes our lakes and rivers.

Over the past several months there have been discussions on Saskatchewan Natural Systems, commercial forest and the cattle sector and the amount of carbon they sequester, the increased acreage of pulse crops and the carbon sequestration in agricultural soils through reduced tillage - all good points to discuss. What has been omitted from any discus-

sion is the role that prairie wetlands play in our climate change strategy, the amount of carbon they sequester in Saskatchewan, or that they are a significant source of emissions when they are converted to cropland. Prairie wetlands, or sloughs, should be key player in the climate change discussion.

Wetlands are optimum natural environments for sequestering and storing carbon from the atmosphere. Saskatchewan's remaining wetlands store approximately 1.3 million tonnes of carbon, the equivalent of seven times the total carbon emissions of all vehicles in Canada. Draining as little as 15 acres of wetlands can release the same amount of greenhouse gas equivalent as the carbon sequestered in one year from no-till farming almost 5,000 acres. Wetlands also store nitrous oxide, a strong greenhouse gas.

Each year approximately 10,000 acres of wetlands are

converted to cropland, releasing almost the equivalent amount of carbon that is captured by the SaskPower Boundary Dam Carbon Capture and Storage Project. Solutions to climate change are complex, but one of the simplest and most cost-effective actions we can take is to work with nature. Protecting the remaining wetlands and native areas in Saskatchewan provide green infrastructure and need to be a key component of Saskatchewan's Climate Change Strategy.

For more information please contact Charles Deschamps.
Email: c_deschamps@ducks.ca

Delving into Sedges

*Sarah Vinge-Mazer, Saskatchewan Conservation Data Centre
(full disclosure: I am also a board member for the Flora of Saskatchewan Association)*

I've had a passion for plants for a long time. Their unique features are fascinating, from the sticky insect traps on the leaves of sundew species (*Drosera* spp.) to the micro-climate created by the shape of a crocus (*Anemone patens*) flower. Even more interesting, as I've now made a career out of plant conservation, and have spent many hours at my scope keying out plants, are the small differences that can

mean the split between two completely different species.

Enter sedges (*Carex* spp.) and cue the foreboding music. I used to avoid sedge identification by mostly ignoring them in the wild, knowing that it is a large and daunting group, and even experts can't agree on species in some cases. There are currently around 105 known species in Saskatchewan. I avoided them until my career took me straight into the heart of identification for all vascular plants. I mainly work on keeping track of Saskatchewan's rare vascular plant species, so of course it is necessary for me to be able to identify all the plants that I encounter, in case any are rare. No more writing down "*Carex* spp." on field data sheets for me! I am happy to say, however, that my foray into this group has been made much more painless than I anticipated, owing to the wonderful resource we have on hand in Saskatchewan.

The Flora of Saskatchewan Association has, as of 2018, produced six books in the Flora of Saskatchewan series. Luckily for all of us who find sedges challenging, the Sedges (*Carex*) of Saskatchewan has already been published. I nervously cracked open my copy to use it for identification for the first time in 2013. I was surprised to find that after reading the introductory material, I didn't have much trouble navigating the keys with my specimens at all! If you don't know what a peryginium is, or the difference between gynecandrous and androgynous spikes, no problem! The illustrations and descriptions will guide you through all the terminology you





Left: *Carex*
inflorescence.
Photo: Sarah
Vinge-Mazer.

need to know and help you start seeing sedges in a new light. True, you will likely need a specimen (please collect responsibly!) and some sort of magnification to get you to an identification, but the nuanced detail that you'll uncover in the process certainly will not disappoint.

I certainly have had my share of frustrations with *Carex* identification (section *Ovales* anyone?), which seems to be a universal problem, but the Flora of Saskatchewan has made it as accessible as possible. I now actively collect sedges (responsibly) in all my fieldwork ventures and you might even say that I've grown a bit fond of them. So don't be afraid to have a closer look at those sedges the next time you happen upon them (and please send me your data if you find anything that is rare)!

Flora of Saskatchewan books (Ferns and Fern Allies; Lilies, Irises and Orchids; Sedges (*Carex*); Grasses; Conifers & Catkin-bearing Trees and Shrubs; and Rushes, Bulrushes & Pondweeds plus the remaining Monocots of Saskatchewan) can be purchased by contacting Nature Saskatchewan or visiting their online store.



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Vegetation Ecologist/Botanist
(Saskatoon, Regina, or Winnipeg)

Job Posting

SNC-Lavalin is a rapidly growing full service consulting firm that is dedicated to responding to the changing needs of our clients. We are seeking a junior Vegetation Ecologist/Botanist, based in Saskatoon, Regina, or Winnipeg to assist with environmental baseline studies, impact assessments, and construction environmental management on a variety of projects within western Canada.

QUALIFICATIONS

- University degree in biology/ecology or related studies
- A minimum of one years' field experience in conducting vegetation surveys
- Basic knowledge of plant taxonomy, including the ability to identify species using taxonomic keys
- Proven ability to identify plants to the species level in a field setting
- Working knowledge of the Saskatchewan rare plant detection survey protocols is an asset
- Experience conducting rare plant surveys is preferred
- Able to classify wetlands in a field setting using the Stewart and Kantrud Wetland Classification System and the Canadian Wetland Classification System is an asset

JOB DUTIES

- Conduct vegetation surveys and assessments in accordance with applicable protocols
- Classify and delineate wetlands in a field setting
- Assist in the preparation of technical reports

Please note that some work for this position may be in remote locations for extended periods of time and may require overtime, weekends and variable hours.

Please submit applications at:
<http://www.snclavalin.com/en/careers/>

This issue's COVER PLANT – *Anemone patens*

Prairie Crocus is one of the most well-known and best-loved prairie wildflowers. It is commonly found throughout the prairies and is the floral emblem of Manitoba. Prairie Crocus is one of the first wildflowers to appear in spring; sometimes they even push up through the snow. They can withstand cold temperatures, in part, due to the silky hairs that cover the plant (even the petals!).

Being early bloomers make them an important spring food source for native bees that overwinter. Prairie Crocus can be used in gardens to support pollinators and enhance the beauty of your yard, but they are slow growers, taking 2-3 years before they bloom. For this reason, it is recommended that seedlings be planted instead of seed (available through native plant sellers). Plants should never be dug from the wild.

Their Cree name is Moostoos ohtsi, meaning “buffalo belly button” as it was thought that a crocus would grow wherever a buffalo calf was born. If you’ve ever seen a crocus bud pushing up through the soil, it looks very much like a fuzzy “outie” belly button.

This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de :



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Climate Change Canada

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