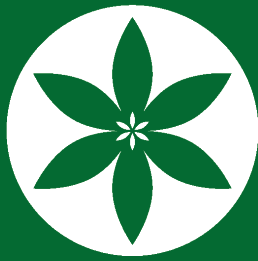


Newsletter of the Native Plant Society of Saskatchewan



ROOTS

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Winter 2019

Shepherdia argentea

Thorny Buffaloberry

Photo credit: Candace Neufeld

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

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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

This issue of *Roots* was supposed to be much different. The original version contained announcements of field tours, workshops, the NatureCity Festival, and other great events. And then the COVID-19 crisis hit. All of those workshops? Canceled. Our field tours? On hold. The NatureCity Festival? Postponed until 2021. So much has changed in such a short time. Everyone has been impacted, and our small charity is no different. In addition to our events, some of our major funding sources are being delayed or not received at all. I know that almost everyone is feeling the financial strain and now is not a great time to ask, but if you can donate to charities such as ours, please do (or do so when your financial situation improves).

Now with the bad news out of the way, here is some good news. As a small charity, we are able to react quickly and adapt to changes. Much of our business was already conducted electronically, such as our monthly board meetings, and I have always worked from a home office, so our society continues to operate the way it always has. Our contractor, Hilary Pinchbeck, also works from a home office and will be able to carry out all of the field work that we have received funding to do. We continue to engage people through our social media channels and are mailing printed resources that people are using for home schooling. Everyone at the NPSS is healthy. Most importantly, nature is not closed. Go for a walk alone in a natural area. See what is waking up and what is migrating back. If you prefer to stay at home, now is a great time to plant native seeds if you haven't already done so. Watch what is coming up in your yard.

In these uncertain times, it's nice to know that the cycles of nature will continue as they always have. Stay safe and we will see each other soon enough.

NPSS Annual General Meeting a Botanical Bash

On January 25-26, 2020, NPSS members from across the province gathered at the Conexus Arts Centre in Regina to attend our annual general meeting and conference. This year's theme was "Thinking Outside the Box" and was loaded with interesting topics and speakers. It's also our 25th anniversary and so we had to make sure that we hosted the best plant party ever. Instead of having one keynote speaker, all of our speakers were keynote calibre! On top of the excellent presentations, we screened films and hosted a silent auction, prize draws and giveaways.

Saturday's events began with the business portion of our meeting, and then transitioned to a set of great presentations. Our keynote speakers include the husband and wife team of Dr. Roy Golsteyn and Dr. Sophie Kernéis, both of whom have been assessing native plants for medicinal properties. Dr. Golsteyn talked about his Prairie to Pharmacy Program, while Dr. Kernéis featured her Alberta Antibiotic Plant Project. Dr. Golsteyn's presentation, entitled "The Beautiful Chemicals in Beautiful Prairie Flowers", set the stage by showing that a medicinal plant guided the history of Canada and that even now, Canada's plants play an important role in medicine. Dr. Golsteyn went on to outline the achievements of his program so far, including the creation of an extract library with over 350 native plant chemical extracts from 29 families. Furthermore, research at his lab has revealed the following: extracts from *Gaillardia* (*Gaillardia aristata*), Shootingstar (*Dodecatheon* sp.), Crocus (*Anemone patens*) and Colorado Rubberweed

(*Hymenoxys richardsonii*) have potential anti-cancer properties, while an extract from Goldenbean (*Thermopsis rhombifolia*) shows promise as an anti-viral, and a molecule isolated from Bunchberry (*Cornus canadensis*) may work as an anti-parasite. Not to be outdone, Dr. Kernéis talked about her program and its achievements, such as the development of a library containing 110 extracts. Research done by Kernéis' lab on the antibacterial properties of these extracts has shown promise, such as inhibiting the growth of *Acinetobacter baumannii* and *Staphylococcus*



Dr. Sophie Kernéis talks about her Alberta Antibiotic Plant Project.
Photo: Chet Neufeld.



The crowd was very engaged with all of our keynote speakers.
Photo: Chet Neufeld.

aureus, two antibiotic-resistant bacteria. Both programs have also included Indigenous involvement.

Our last keynote speaker was Richard Krygier from Natural Resources Canada. His presentation, entitled "Restoration of Disturbed Ecosystems and The Use of *Salix* for Phytoremediation, Biomass Production and Reclamation" focused on innovative restoration projects involving phytoremediation (using plants to clean up pollution) and biofuel development. Some of these projects included dense plantings (over 15,000 stems per hectare) and took place on various sites such as wastewater treatment ponds, well sites, oil sands mines, and seismic lines. Some of the research being done as part of these projects includes establishment and growth trials, suitability of native willow species for these types of projects, and seed delivery methods (in true Canadian fashion, they are trialing the use of organic hockey pucks embedded with seeds).

Saturday's presentations were punctuated with film screenings, which included *Grasslands: A Hidden Wilderness*, recently featured on *The Nature of Things*, and *The Story of Grasslands National Park*. Our event was one of the first Saskatchewan screenings of either film. Additionally, *The Story of Grasslands National Park* was produced in Saskatchewan.

Throughout Saturday, participants were also busy bidding on many great items as part of our silent auction. In total, the silent auction raised more than \$1000 for our conservation and education programs. Many thanks to our generous bidders and sponsors!

Sunday saw the debut of the Aquatic Ecosystems learning module of our Saskatchewan Master Naturalist program. The Aquatic Ecosystems module guided participants through the complexities of our rich diversity of aquatic habitats in a fun and interactive way. This module was developed over several months and with the cooperation and input of several



Some of the silent auction items that helped to raise over \$1000.
Photo: Chet Neufeld.

individuals and organizations. At our event, the module was delivered by Chet Neufeld, Renny Grilz, Hilary Pinchbeck, Michael Champion and Elder Betty McKenna. The day ended with groups developing plans to real world problems, using the knowledge they had gained throughout the afternoon.

Some of the other things we did to celebrate our twenty-fifth anniversary included a retrospective presentation on past projects, events and achievements, poster presentations of our Flowering Rush Eradication Project and Rare Plants and Ranchers Program (our largest in budget and geographic area, and also our longest-running), and photo collages on the wall of past events and people. Finally, what would an anniversary be without cake? We had a giant sheet cake with the NPSS logo on it, and after a few obligatory photos for social media, it was devoured!

All in all, the annual general meeting and conference was one of our best yet, and participant evaluations agreed. It's getting hard to outdo ourselves every year, but we will certainly try again in 2021!

Thanks to our long-time partner and Platinum Sponsor, Saskatchewan Polytechnic, for supporting this event!



The NPSS board. Photo: Renny Grilz.



Behind the Scenes: Faces of the NPSS

Hi everyone, my name is Andrew Stewart. I grew up in Moose Jaw, Saskatchewan and was fortunate enough to have a wide variety of outdoor experiences growing up, but my interest in native plants didn't really take hold until I enrolled in the grasses and grassland taxonomy class while taking my Bachelor of Science in Agriculture from the University of Saskatchewan. I have since gone on to participate with the Rare Plant Rescue crew at Nature Saskatchewan and have been working as a consulting ecologist for the last ten years at Golder Associates Ltd. My time in the field has allowed me to cover the province of Saskatchewan from border to border, in all directions, as well as spend time in Manitoba, Alberta, and the Northwest Territories to study the local flora. I have been glad to serve on the NPSS board since 2015 and I am also active on the board for the Flora of Saskatchewan Association. I currently live in Saskatoon with my wife and two daughters where we enjoy spending as much time with them exploring the outdoors.

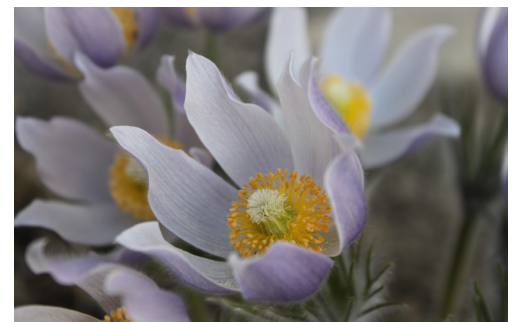
Spot the Crocus Contest

The Spot the Crocus contest is back!

We know you've been keeping your eyes peeled for the first prairie crocus (*Anemone patens*) of the season (maybe you've already spotted it!).

Let us know when you see the first one of the year – you can even include a picture of it. The best way to do this is to share your finding on our Facebook page dedicated to native plant photos. It's called "Saskatchewan Native Plants – Native Plant Society of Saskatchewan", and is different from our main Facebook page. It's a closed group, so please request to join and we'll be sure to add you (do it right now!).

As usual, the winner will receive bragging rights for the year and a mention in our newsletter.



Prairie Crocus (*Anemone patens*).

Photo: Chet Neufeld

Oh Give Me a Home...

Okay, we've had enough of winter and are anxiously waiting for things to green up. Many of us are also probably making plans for our yard. When selecting new plants for our yards, most of us consider size, colour and location. However, how many of us think about our yard's usefulness to others? I'm not talking about what your guests and neighbours think of it, but rather how it would benefit wildlife. Whether you live in a city or in the country, your yard is wildlife habitat. The quality and usefulness of it is up to you. Arguably, flowers are the best at attracting wildlife to your yard and are probably the most useful to them as well. Native flowers are the perfect addition to anyone's yard who wants to attract birds, butterflies and bees.

With bee numbers in decline, you can do your part to feed them by planting native flowers such as purple prairie clover (*Dalea purpurea*), crocus (*Anemone patens*), or velvety goldenrod (*Solidago mollis*). Early and late blooming native flowers are particularly helpful to bees as it is during these

times when a food source is most critical to their survival. While horticultural varieties look nice, some provide no benefit to pollinators. For instance, many double bloom varieties produce no nectar, or have so many petals that the bees find it too difficult to access the nectar.

Birds can also be attracted by using the right native flowers. Touch me not (*Impatiens biflora*) and wild iris (*Iris versicolor*) are not only beautiful, but also provide good sources of nectar for hummingbirds. Plants such as narrow-leaf sunflower (*Helianthus maximiliani*) and prairie coneflower (*Ratibida columnifera*) produce good seed crops that are enjoyed by finches, sparrows and juncos.

Butterflies will benefit from the proper selection of native flowers as well. Most people know that milkweeds (*Asclepias spp.*) are the sole food source for caterpillars of the monarch butterfly, but many other native flowers support other butterfly species also. Alexanders (*Zizia spp.*) are a food plant for the stunning swallowtail butterfly caterpillar, while native violets (*Viola spp.*) are a good food source for fritillary butterfly



Black-eyed Susan (*Rudbeckia hirta*). Photo: C. Neufeld.



Canada Milkvetch (*Astragalus canadensis*).
Photo: Matt Lavin (Creative Commons).

caterpillars. Like bees, adult butterflies feed on nectar and two of the top ten nectar plants for butterflies are joe pye (*Eupatorium maculatum*) and black-eyed susan (*Rudbeckia hirta*). For both bees and butterflies, it's good practice to plan your yard so that there is at least one species blooming at all times during the growing season in order to provide a consistent nectar supply.

Then there are what I call the superplants. These are native flowers that are mobbed by just about anything with wings. Native flowers in this category include Canada milkvetch (*Astragalus canadensis*), meadow blazingstar (*Liatris ligulistylus*), giant hyssop (*Agastache foeniculum*) and wild bergamot (*Monarda fistulosa*). All four of these flowers produce nectar for bees, butterflies and hummingbirds, and their seeds are also readily eaten by birds. Additionally, the leaves and flowers of giant hyssop and wild bergamot can be used to make tea or eaten fresh.

These are just a sampling of the native flowers available for use by wildlife; many more are available in a range of

colours and sizes. So the next time you're adding plants to your yard, take a minute to think about what else might enjoy them. For anyone interested in learning how to make their yard better for birds, butterflies and bees, check out our online resources at www.npss.sk.ca or contact Chet Neufeld at (306) 668-3940 or info@npss.sk.ca. There are also some great native plant gardening books, such as *Native Plants for Prairie Gardens* by June Flanagan or *Cultivating our Roots: Growing Authentic Prairie Wildflowers and Grasses* by NPSS member Nora Stewart. Both of these books can be found on our online store or at your local bookstore. Finally, native plant and seed sellers are a great resource, and a quick chat with them about your yard is likely to result in great advice. A list of all native plant and seed suppliers can be found on our website.



Giant Hyssop (*Agastache foeniculum*).
Photo: Candace Neufeld.



Wild Bergamot (*Monarda fistulosa*). Photo: Candace Neufeld.

A Look Back

It's our 25th anniversary! Here are some of the notable numbers we've achieved.

Membership:

1995 – 15 and only in Saskatchewan

2020 – 185 in SK, AB, BC, MB and the U.S.

Funding:

To date the NPSS has raised over 2.5 million dollars for native plant education and conservation, with the largest single project worth \$500,000 and the largest program valued at \$1,235,486.

Field tours:

The NPSS has hosted 84 field tours across the province since 1995.

Involvement:

The NPSS currently sits on 12 committees and has 25 partners. Since 1995, we have logged an estimated 21,000 volunteer hours.

Education:

171, 582 – the number of students in Saskatchewan that have received NPSS educational resources.

Projects:

To date, the NPSS has 82 major projects completed or ongoing.

Habitat:

The NPSS has planted over 6,000 native trees, shrubs, wildflowers and grasses and distributed over 2,500 seed packets, each covering a square meter.

Stewardship:

132,000 – approximate number of acres of native habitat currently being managed for rare plants through beneficial management plans developed by the Rare Plants and Ranchers program.

None of this would have been possible without you, our dedicated members. Thank you for your continued gifts of time, energy and money. We appreciate everything you do!

Increased payment to eligible farmers through new Marginal Areas Program Incentive of \$125/acre now being offered

(Mar 10, 2020 — Regina, SK.)

Saskatchewan farmers are becoming increasingly aware of those field areas that are not growing a crop, or a profit. Through its Marginal Areas Program, Ducks Unlimited Canada (DUC) is providing a financial incentive for producers in its target areas to seed hard to access and poorly producing areas to perennial forages.

“This program was developed for producers who aren't looking to convert an entire quarter to forage, but need help with small fragmented areas in crop margins. DUC is paying a premium to seed those areas to perennial cover,” says Trevor Plews, DUC's head of conservation programs in Saskatchewan.

While the Marginal Areas Program (MAP) has been offered since 2017, the incentive has recently been increased to \$125/acre. Plews notes that DUC has heard farmer input in modifying the program. “There are economies of scale when dealing with fragments of say, 5 acres. The cost of seeding is proportionately higher. Given these concerns, we felt the increased price point was warranted.” Feedback from producers has been favourable; MAP continues to bring in repeat customers who are referring new lands to the program.

Since 2017, roughly 1000 acres have been seeded to forage under the Marginal Areas Program and DUC is looking to add more acres to the program this year. Along with helping manage salinity issues and other producer challenges, perennial cover allows for a suite of environmental benefits, such as improvements to water quality, carbon sequestration, and habitat for wildlife and beneficial insects. This year's program also includes a free Pollinator Power Pak, a mixture of short- and long-lived perennial species that improve the value of the stand specifically for pollinators.

Producers interested in the MAP (or one of DUC's other forage programs) should contact their local DUC conservation program specialist to find out if they are in the DUC target areas. Producers may go to myflexfarm.ca for details, contact DUC Regina at 1-866-252-DUCK (3825) or email du_regina@ducks.ca.

Ducks Unlimited Canada (DUC) is the leader in wetland conservation. A registered charity, DUC partners with government, industry, non-profit organizations and landowners to conserve wetlands that are critical to waterfowl, wildlife and the environment. www.ducks.ca

NPSS Accepts Aeroplan Miles

Do you have some Aeroplan miles sitting in your account and don't know what to do with them? Donate them to the Native Plant Society of Saskatchewan. As a member of Air Canada's Beyond Miles charitable funding program, your donated Aeroplan miles will go towards travel costs associated with our conservation and education projects across Saskatchewan. Donate today at <https://beyondmiles.aeroplan.com/charity/642>



This issue's COVER PLANT–

Shepherdia argentea

Thorny Buffaloberry is a common native shrub that grows mainly in the prairies, replaced by its relative Canada Buffaloberry (*Shepherdia canadensis*) in forested areas of Saskatchewan's central and northern regions. Thorny Buffaloberry is aptly named, being covered in sharp, straight thorns arranged oppositely on the branches, with a terminal spine on the branch tip. Thorny Buffaloberry is a striking plant in any season. In early spring, its woody skeleton is covered in tiny, yellow flowers before the leaves emerge, giving the whole plant a yellow tinge. Because it is one of the first plants to bloom in spring, it is an important nectar source for early season pollinators. By early summer, the flowers have given way to silvery green leaves, giving it a unique hue that makes it stand out from surrounding foliage. In fall, bright red berries have formed, which become all the more prominent once the leaves have dropped. The berries stay on the plant throughout the winter, becoming an important food source for non-migratory birds. Indigenous people also used the berries for food; one of the preparations included whipping the berries into a kind of mousse. Research conducted at the University of Saskatchewan showed that the berries are very high in Vitamin C and other antioxidants. In addition to being nutritious and good for wildlife, Thorny Buffaloberry is also a great addition to any landscape, provided it gets plenty of sun. In smaller yards, a single plant can be used as a focal point, while in larger yards it can even be planted as an impenetrable hedge. Keep in mind that it will form a thicket over time, but it can be controlled by pruning. Several native plant sellers provide Thorny Buffaloberry; refer to our online list for more information. Fun fact: the Loggerhead Shrike, a Species at Risk in Canada, uses the thorns of this plant to impale its prey, and you can sometimes find entire plants festooned with mice, snakes, grasshoppers, and other creatures that the shrike has caught.

Corporate Members and Partners

This project was undertaken with the financial support of:
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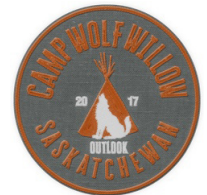
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