

Newsletter of the Native Plant Society of Saskatchewan



R O O T S

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Fall 2019



Orobanche fasciculata

Clustered Broom-rape

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

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

President's Message

Shelley Heidinger

The NPSS is reaching a major milestone in 2020 with our 25th Anniversary! We welcome your attendance at the Annual General Meeting and Conference on January 25-26 in Regina to help celebrate with us. One exciting possibility to mark this achievement will be revisiting several of the first areas toured during our early years. If you have any suggestions along this line, please pass them along to us!

We had another exciting summer of field tours. In one of our biggest tours yet, we cross-border partnered with the Montana Native Plant Society for them to hold their AGM and field tours in the Cypress Hills area of Saskatchewan. Many thanks to all those who participated and volunteered to make this tour a success despite the poor weather. The Avonlea Badlands tour compliments of the Avonlea Heritage Museum was a new one for us and was very successful. Watch the newsletter and website for next year's line up and remember that we're always taking suggestions for new areas to tour!

I'd like to once again offer my thanks to those who volunteer with us for various events and activities. Your participation is what helps our Society to spread the word about native plants and their importance!

I wish Nadia Mori the best of luck as she has stepped away from the NPSS Board to pursue her interests in the field of acting. We also welcomed Heather Peat-Hamm to the board last spring. Heather has been a key player in assisting Chet with the development of the new look for our newsletter. We have also recently brought three new, young board members onto the team; Luke Jorgensen is Nadia's replacement at the Ministry of Agriculture while Kyra Mazer and Beckett Stark are graduate students. All three are very enthusiastic and will bring fresh ideas and energy to the NPSS in 2020 and beyond. Welcome aboard!

If you or anyone you know might be interested in serving on the Board for a term (or two!), would like more information about volunteering or would like to offer suggestions for tours or other events, please contact myself or Chet for more information!

Shelley Heidinger

Plan on Participating in Our Plant Party

Plan now to attend the upcoming NPSS annual general meeting and conference on January 25-26, 2020 in Regina. This year's theme is "Thinking Outside the Box" and is packed with interesting topics and speakers.

2020 will retain the two-day format of our annual general meeting. It's also our 25th anniversary and we're pulling out all the stops! We are screening films, hosting a silent auction, prize draws and giveaways, and featuring fantastic speakers.

Saturday's events will take place at Conexus Arts Centre, beginning with breakfast and the business portion of our meeting, and then transitioning to a set of great presentations. In celebration of our 25th anniversary, every speaker is a keynote speaker! 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. Golsteyn will be talking about his Prairie to Pharmacy Program, while Kernéis will feature her Alberta Antibiotic Plant Project. Not to be outdone, Richard Krygier from Natural Resources Canada will talk about innovative projects involving phytoremediation (using plants to clean up pollution) and biofuel development. Our film screening will include "Grasslands: A Hidden Wilderness", recently featured on The Nature of Things and "The Story of Grasslands National Park".

On Sunday, the Aquatic Ecosystems learning module of our Saskatchewan Master Naturalist program will be delivered, which forms part of the core competencies of the program, so anyone wanting to attain their Saskatchewan Master Naturalist designation must take it. The Aquatic Ecosystems module will guide participants through the complexities of our rich diversity of aquatic habitats in a fun and interactive way.

We are keeping our costs extremely low for this two-day event in the hope that as many people as possible will be able to attend. You will not find a better deal anywhere! As you'll notice when registering, there is an option to attend only one of the two days but attending both days gives you a discount, as does being an NPSS member. For those needing to renew, memberships purchased at the time of registration will allow you to register for the NPSS member rate.

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

We hope to see you there!



Upcoming Events

Montana Weed Control Association Annual Conference

January 14-16, 2020

Great Falls, MT

For more information, go to <https://www.mtweed.org/>

7th Native Prairie Restoration and Reclamation Workshop and the 5th Transboundary Grassland Workshop

February 25-27, 2020

Regina, SK

For more information, go to:

<https://www.pcap-sk.org/home>

Alberta Invasive Species Council 7th Annual Conference

March 24-25, 2020

Lacombe, AB

For more information, go to:

<https://abinvasives.ca/aisc-conference/>

2020 NatureCity Festival

May 19-24, 2020

Saskatoon, SK

For more information, go to:

<https://wildaboutsaskatoon.org/>

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.



Dr. Roy Golsteyn

Dr. Roy Golsteyn is the Principle Investigator of the Cancer Cell and the Natural Product Laboratories at the University of Lethbridge in Alberta, Canada. He undertook his PhD in biochemistry in Sir Tim Hunt's laboratory (Nobel Prize 2001) at the University of Cambridge. Roy completed his studies as a research fellow in Switzerland and at the

Institute Curie in Paris. Prior to joining the University of Lethbridge, he was a senior research scientist with a pharmaceutical company in France. He has published more than 80 scientific papers and holds 5 patents. Roy was born and raised in Lethbridge, AB and has always been fascinated by the great outdoors.

Rare Plants and Ranchers Update

Hilary Pinchbeck, NPSS Project Coordinator

The Rare Plants and Ranchers 2019 field season was very successful. In the last update I had left off working in Consul, SK looking for more Dwarf Woolly-heads (*Psilocarphus brevissimus* var. *brevissimus*; S1), a Species at Risk listed as Endangered. While continuing my search, I came across a provincially-rare species called Least Mouse-tail (*Myosurus minimus*; S3). The Dwarf Woolly-heads search continued, however, this time I was searching wetlands within crop fields because this species has occasionally been known to be found in these conditions. Unfortunately, I had no such luck and did not come across this species in the crop field wetlands I had searched.

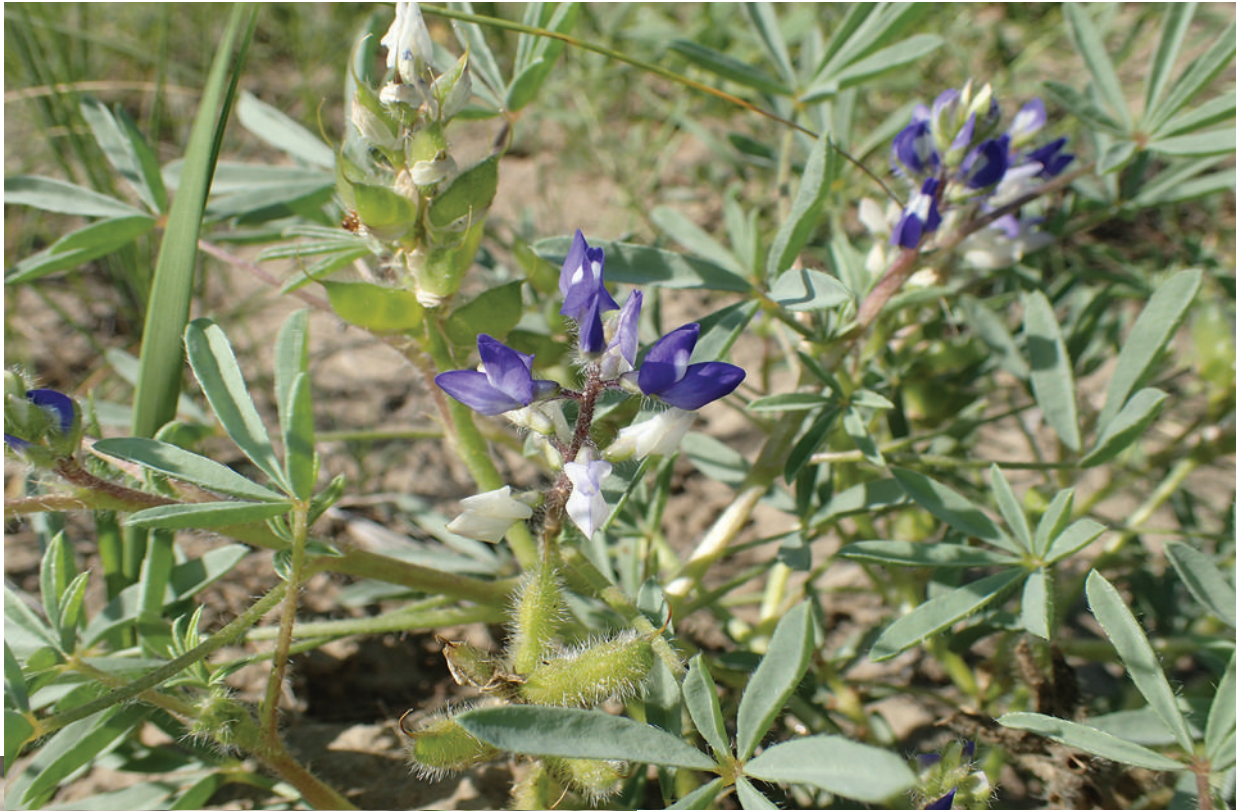
After finishing the Dwarf Woolly-heads search, I then headed onward to Elbow, SK to survey three private properties

for two Species at Risk, Small-flowered Sand-verbena (*Tripterocalyx micranthus*; S2) which is listed as Endangered, and Smooth Goosefoot (*Chenopodium subglabrum*; S2) which is considered a Threatened species. The properties here are located along the South Saskatchewan River and consisted of surveying beach habitats to sandy native prairies. While surveying these properties I came across Small-flowered Sand-verbena and Smooth Goosefoot as well as provincially-rare species like Small Lupine (*Lupinus pusillus* ssp. *pusillus*; S3). Another provincially-rare species, Beaked Annual Skeletonweed (*Shinnersoseris rostrata*; S2) is known to be on these properties. However, with such a dry spring, I did not come across this annual species as previously found in other years. I also found a provincial rare species, Louisiana Broomrape (*Orobanche ludoviciana*; S3). Another interesting find this year was a second location of Common Dodder (*Cuscuta pentagona*; S1) on a property in this area where it had not been previously found.



Above: Small-flowered Sand-verbena (*Tripterocalyx micranthus*). Photo: Hilary Pinchbeck

Right: Small Lupine
(*Lupinus pusillus*).
Photo: Hilary Pinchbeck



Below: Louisiana
Broom-rape (*Orobanche
ludoviciana*).
Photo: Hilary Pinchbeck



After finishing up in Elbow I returned to Cabri, SK in search of Smooth Goosefoot. I had already searched the area earlier this season for Slender Mouse-ear-cress (*Transberingia bursifolia* ssp. *virgata*; S2), a Species at Risk listed as Threatened, but was unsuccessful due to poor growing conditions in the spring and early summer. When I returned to Cabri the second time, my search for Smooth Goosefoot was successful.

Since the field season has come to an end I have been reflecting on my summer and how amazing it was to see these pieces of intact native prairie across Saskatchewan. I cannot believe my job this summer was to search for these rare and beautiful species, and to be able to interact with these passionate ranchers who really make the biggest difference when it comes to conservation efforts. I already cannot wait for the next summer field season to begin!

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



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada



**Saskatchewan
Ministry of
Environment**

Global Designation Supports Important Plant Habitat in Saskatchewan

You may have heard about Important Bird Areas (IBAs) in Saskatchewan. Well, it's not just the birds that are disappearing. Although you don't hear much about them, plants are among the most rare and threatened species, but are often overlooked when it comes to conservation.

A new program being managed by the Native Plant Society of Saskatchewan (NPSS), and facilitated by the Saskatchewan Conservation Data Centre and the Botanical Assessment Working Group (BAWG), is helping to combat the fact that plants are often left in the shade. The Vern Harms Important Plant Areas (IPAs) of Saskatchewan program is shining a light on important habitats in the province, supporting native plant species and plant diversity.

The IPA designation was first developed in the early 2000's by the organization PlantLife International. IPAs represent a region's most significant places for native plant and fungal species. Originally developed for use throughout Europe, it has since been accepted around the globe but has not yet been implemented in Canada, until now.

"There are many areas within Saskatchewan supporting rare plant species and unique community assemblages that are worthy of the IPA title" says Chet Neufeld, Executive Director of the NPSS. "The NPSS is excited to announce the local implementation of this international designation", making Saskatchewan the first province in Canada to designate sites as IPAs, "and we are very glad that we are able to honour Vern Harms," adds Neufeld, "as Vern is one of the province's preeminent botanists."

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

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

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



Above: The beautiful and very rare Dragon's Mouth Orchid (*Arethusa bulbosa* (S1)) at Greenbush Bog IPA. Photo: Candace Neufeld

Native Plant Society of Saskatchewan

is pleased to present its

25th Annual General Meeting and Conference

“Thinking Outside the Box”

January 25-26, 2020
Conexus Arts Centre
200 Lakeshore Drive
Regina, SK

Please note: Due to allergies of staff and attendees, this is a fragrance-free event.

Saturday, January 25th

8:00 a.m.	Registration & Breakfast
8:30 a.m.	Opening Remarks and Annual General Meeting* (during breakfast)
9:30 a.m.	2019 in Projects - a Review - Chet Neufeld, NPSS
10:00 a.m.	Coffee break and networking
10:30 a.m.	Phytoremediation and Restoration using <i>Salix</i> and Other Plant Species - Richard Krygier, National Research Council
11:30 a.m.	Film screening – The Story of Grasslands National Park*
12:00 a.m.	Lunch (Volunteer of the Year Award)
1:00 p.m.	How Plants Can Be the Source of New Antibiotics - Sophie Kernéis, Lethbridge College
2:00 p.m.	Coffee break and networking
2:30 p.m.	The Beautiful Chemicals in Beautiful Prairie Flowers - Roy Golsteyn, University of Lethbridge
3:30 p.m.	Film screening - Grasslands: A Hidden Wilderness*
4:30 p.m.	Wrap-up

*denotes free events

Sunday, January 26th

12:30-4:30 p.m.	Saskatchewan Master Naturalist Workshop – Aquatic Ecosystems module
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NPSS AGM and Conference Registration Form

Registration deadline is January 20, 2020

Mail this form with payment by cheque to:
Native Plant Society of Saskatchewan
P.O. Box 21099
Saskatoon SK S7N 5N9

Please Note: You can register for the AGM and/or renew your membership with your credit card through our store on our website at www.npss.sk.ca/store

Name _____

Organization _____

Address _____

City/Town _____ Province _____ Postal Code _____

Phone _____

Email _____

Registration Fees:

NPSS Member \$70
(Saturday only = \$50, Sunday only = \$30)

Non NPSS Member \$80
(Saturday only = \$60, Sunday only = \$30)

Student \$40
(Saturday only = \$30, Sunday only = \$20)

Special Dietary Needs:

Other:

Individual 1-Year Membership \$30

Family 1-Year Membership \$45

Student 1-Year Membership \$15

Non-profit 1-Year Membership \$100

Corporate 1-Year Membership \$200

Individual/Family Lifetime Membership \$500

TOTAL ENCLOSED: \$ _____

Please note that the member rate is applicable only to PAID members. Memberships purchased at the time of registration entitle you to membership rates.

For more information, please contact:

Chet Neufeld, Executive Director
Phone: 306-668-3940
Email: info@npss.sk.ca

Renew Your Membership on Time and Win a Prize

Well, it's that time of the year again. For those of you paying by the year, your NPSS membership fee is now due.

Go to our online store at our website (www.npss.sk.ca/store) and pay with any major credit card. It's fast, easy and secure. However, if you still want to mail a cheque you can do that, too. Do you want to avoid having to remember to pay altogether? Consider buying a lifetime membership. It's cheaper, in the long run, and you can pay in installments if you can't afford, or don't wish to pay, a lump sum. All those who renew their memberships online by January 31, 2020 will be entered to win back their membership dues.

Thank you for supporting the NPSS in 2019 with your membership dues and donations of time, labour and money! We are extremely grateful that we are your charity of choice.

NOTE - As we are a registered charity, your donations to the NPSS are tax deductible.

This issue's COVER PLANT— *Orobanche fasciculata*

Clustered Broom-rape is a native parasitic plant common across Saskatchewan's prairies. This diminutive but beautiful wildflower is actually quite hardy and can be found even on the driest prairies, as proven by the plant on the cover, which was found on our Avonlea Badlands summer field trip. It tends to parasitize sage species (*Artemisia sp.*) as is the case of the plant in the photo where it is surrounded by, and likely parasitizing, Fringed Sage (*Artemisia frigida*). As with most of our parasitic plants, it can't photosynthesize and so has no way of producing the food it needs. It relies on the host plant for all of its nutrients and, as a seedling, it must quickly find a host plant to attach to or it will die. It is only one of three *Orobanche* species in Saskatchewan, and the only one that is ranked as common. While it is fairly abundant, it is restricted to intact native prairie as it doesn't do well with disturbance. Furthermore, its distribution is limited to areas with appropriate host species. Because of its specific growing requirements and lack of a commercial source for plants or seeds, it is not recommended for a horticultural setting and is best enjoyed in nature.

Corporate Members and Partners

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



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada



Blazing Star
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