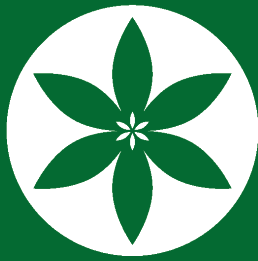


Newsletter of the Native Plant Society of Saskatchewan



R O O T S

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Caltha palustris

Marsh Marigold

Photo credit: C. Neufeld

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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

Oh, my goodness, what a spring we had! I hope everyone is fairing well throughout these trying times with COVID-19 restrictions and that you are all well! We have been very fortunate in my area, but I know that some have been more heavily affected than others.

As I glance out the window, I am continually reminded of what an odd growing season we've been experiencing. I work mainly with trees at my place of work and I'm used to being able to pick aspen and willow seed over the May long weekend. Not this year! After a lengthy drive, the leaves were just barely starting to show! I guess this reminds us that we should never take Mother Nature for granted.

While I'm sad to say that our activities and field tours have been cancelled for the season we are still able to head out on our own to explore new corners of our province or rediscover old stomping grounds. We just won't be able to do it in large groups and we have to remember to social distance which I must say is very easy to do in our wide open natural areas of the province! Head out and find some wildflower you've never seen. Being out in nature in any form can be so good for both our physical and our mental health and both are especially important right now.

May you all stay happy and healthy and I hope to see you soon!



This issue's COVER PLANT— *Caltha palustris*

Marsh Marigold is a common native forb that grows in marshes, wet meadows and stream margins. A member of the Buttercup family (Ranunculaceae), Marsh Marigold is native to all parts of Saskatchewan, and ranges east to west in Canada, into the northern territories and as far south as Tennessee. Marsh Marigold is an early bloomer, and its bright yellow flowers (about the size of a toonie) appear just after Crocuses (*Anemone patens*) have bloomed. Its early blooming is important for pollinators, especially those that overwinter, as it provides a much needed food source when they emerge and helps to tide them over until the next flowers are in bloom. Even after flowering, the crown-like seed head and large, shiny leaves continue to hold interest. Marsh Marigolds are easy to grow and are a low maintenance addition to any pond edge or rain garden. They are available as both plants and seed from suppliers on our Native Plant Material and Services Supplier List found here: https://www.npss.sk.ca/docs/2_pdf/Native_Plant_Source_List_2013_-_revised.pdf

Spot the Crocus Contest Winner

This year brought a cold spring for most of the province, and so it was no surprise that our Spot the Crocus contest winner spotted the first crocus of the season a few weeks later than normal. Melody Lowes spotted the first crocus on April 19, 2020 near Craven, SK. Of course those in the southern part of the province have a natural advantage, as spring weather usually comes a little sooner and warmer than in the rest of the province. Melody posted her find to our Facebook page dedicated to native plant photos, called “Saskatchewan Native Plants – Native Plant Society of Saskatchewan”. If you’re on Facebook and want to show off what you found, or need help with identification, this page is for you! Find it at <https://www.facebook.com/groups/1767293223307278>

NPSS Program Gets National Recognition

The NPSS’ Rare Plants and Ranchers program was recently nominated by Environment and Climate Change Canada as one of their national submissions to the Food and Agriculture Organization of the United Nations, highlighting achievements that celebrate 2020 as the International Year of Plant Health. This puts our program among the best nationally and has the potential to draw global attention to our efforts. It also allows others to model their initiatives after ours, drawing from nearly a decade of experience that our Rare Plants and Ranchers program brings.

12th Annual Event Recognizes Exceptional Sustainability Achievements in Saskatchewan

The Native Plant Society of Saskatchewan recently received an award for its Saskatchewan Master Naturalist Program. The program is a collaborative effort by many organizations and individuals, and is now in its fourth year. It has been incredibly successful at providing quality educational opportunities to people interested in nature, with the aim of creating citizen scientists that can assist with conservation initiatives around the province.

RCE Saskatchewan presented 17 local sustainability initiatives with awards on May 13, 2020, in its first ever on-line awards ceremony. RCE Co-Coordinator, Dr. Roger Petry, “It’s tremendously exciting to see the ideas, people, and organizations mobilized to build a sustainable future for Saskatchewan. It’s a real privilege to be able to acknowledge these initiatives and help connect them to the UN’s 17 sustainable development global goals so they know they are part of a larger movement.”

RCE Saskatchewan is one of more than 170 Regional Centres of Expertise on Education for Sustainable Development recognized by the UN University. Since 2008, RCE Saskatchewan has been recognizing the achievements of individuals, organizations and community groups through its awards program.

The First Nations University of Canada hosted the event, and the keynote address was delivered by Dr. Charles Hopkins, UNESCO Chair in Re-orienting Education Towards Sustainability at York University.



RCE Saskatchewan's Education for Sustainable Development Recognition Program recognizes:

Saskatchewan Master Naturalist Program

as an innovative project that has helped to increase the capacity for sustainable development in Saskatchewan and has contributed to the advancement of the United Nations Decade of Action to deliver the Sustainable Development Goals by 2030.

May 13th, 2020

Roger A. Petry
Roger Petry, Co-coordinator

Margret Asmuss
Margret Asmuss, Co-coordinator

DECADE OF ACTION

Great Taste in Native Plants

Chet Neufeld, NPSS Executive Director

For years, I’ve extolled the virtues of using native plants. They’re attractive, they provide habitat for wildlife and they promote biodiversity. However, I’ve rarely focused on the most obvious attribute for many native plants: they’re edible. Of course, everyone knows about the more common edible native plants, like the many delicious wild berries that grow throughout the province. There are also plants like Giant Hyssop (*Agastache foeniculum*) whose flowers and leaves taste strongly like anise, or the peppermint punch of Wild Mint (*Mentha arvensis*). However, I’d like to introduce some of the more obscure edible native plants.



Strawberry Blite (*Chenopodium capitatum*)
Photo by Derek Ramsey

Strawberry Blite (*Chenopodium capitatum*), a member of the Goosefoot family, is an annual plant that grows in disturbed areas and is widespread across the Prairie Provinces. The whole plant is edible, but the leaves

and fruit are the best. Both can be eaten in moderation either raw or cooked and are high in vitamins A, B₁, B₂, B₆ and C as well as calcium and protein. The fruit is subtly sweet, and resembles a knobby, dry strawberry as its name implies. The leaves taste like spinach or chard (domesticated cousins), and make a good alternative. I have even seen seeds for this plant at garden centres.



Arum-leaved Arrowhead
(*Sagittaria cuneata*)
Photo by Thayne Tuason

Arum-leaved Arrowhead (*Sagittaria cuneata*) is an aquatic plant that grows in shallow wetland margins. It is common throughout the prairies and is also used in water gardens because of its arrow-shaped leaves. In wetlands, it is highly sought after by muskrats and waterfowl for its delicious tubers, which is why it also goes by the name of duck potato. The tubers are small (2-5 cm in diameter) and whitish in colour. While they can be eaten raw, their starchy taste is muted after boiling. If you have the time and patience, you can also make chips!



Arrowhead tuber
Photo by Nathan Sandel



Arrowhead chips
Photo by Tom Morris

Here's a plant that everyone is familiar with, but few people know that they're edible. Almost all parts of Cattail (*Typha latifolia*) can be eaten. The rhizomes can be boiled, roasted or eaten raw but can also be dried and ground to make a porridge



The still green pollen-producing portion of the Cattail is in the bowl on the upper shelf. These have not yet matured to release the pollen. The lower bowl has the lower section of the two-part spike, which would have made the brown seed portion. Both cob-like sections are good steamed and eaten like corn. The pollen end in the upper bowl is the choice bit.

Photo and caption by Dorothy Bird

Both segments of the Cattail spike from which the top is releasing pollen. These will be inserted into a narrow-topped container and shaken to release the pollen. That which is not released/mature is a fibrous mixture of the male portion that can be easily slipped off the slender central stem and makes a good veggie burger or muffin mix. Photo and caption by Dorothy Bird



substitute. The young flowering spikes are also very edible while they're green. They can be eaten like corn on the cob and have a texture and taste somewhat like canned baby corn. Young shoots can be peeled and cooked as well. Another less commonly used part of the Cattail plant is the pollen. When



The male, or top of the Cattail spike, stripped. Dorothy mentions she uses it for stir-fries, veggie patties or fresh in a salad. Photo by Dorothy Bird

the time is right, large quantities of pollen can be shaken off of the plant and used in baking as a flour substitute. Pollen pancakes and biscuits are probably the most common item made in this instance, but the uses are almost endless (Cattail pollen pasta anyone?). Indigenous people relied heavily upon Cattail at certain times of the year.



This small bowl of Cattail pollen, a scant quarter cup, is what Dorothy used along with a cup of flour for the pancakes and waffles. Photo by Dorothy Bird



Cattail pollen batter. Photo by Dorothy Bird

Veteran forager Dorothy Bird had this to say about collecting Cattails: “Before the Cattail begins to shed pollen, the spike can be easily pulled from the plant, leaving the plant in place. Collecting the spike seed/pollen/cattail spike allows making use of the whole stalk to select which items one wishes to utilize. The succulent white ends are good to eat raw, in salad or like asparagus. I pick these delicacies even before they start to burst their green sheath to emerge as a Cattail stalk. This allows for getting a lot of cobs to later freeze. As spikes emerge, I take up to the free flowing pollen stage, often just bending those spikes into a paper bag or a gallon ‘rigged’



A quarter cup of protein rich (17-22%) Cattail pollen is enough to colour and give a distinct aroma and flavour to the pancakes and waffles that Dorothy made.

container, and beating/shaking the stalk to release the pollen. One needs a very fine sieve to sift out the pollen and leave the tiny black bugs that feast upon the ‘tails’. I find the pollen seems to have a leavening power as well. Very little baking powder is needed (about two teaspoons) with the flour to make the pancakes as pictured.”

Indian Breadroot (*Pediomelum esculentum*) is a member of the legume family that, as its name suggests, has an edible root. However, unlike other members of the legume family such as peas and beans, its seeds are inedible. A fully mature Indian Breadroot can have a root the size and shape of a fist. While it can be eaten raw, the root is starchy and stringy, and is much better when boiled. Indian Breadroot is widespread across the prairies, and Indigenous people commonly ate this plant whenever they encountered it.



Indian Breadroot
Photo by Chet Neufeld

Of the three species of cacti on the prairies, two have edible parts. Plains Prickly-pear Cactus (*Opuntia polyacantha*) pads can be eaten raw or cooked once stripped of their long spines. They have a texture and taste of slightly unripe avocado. By far the better tasting cactus is the fruit of the Pincushion Cactus (*Escobaria vivipara*). These develop after the showy pink flowers have dried up and dropped, and are hidden amongst the spines. They are easiest to remove and taste best when fully ripe (early frosts improve the ease of removal and taste). The taste and texture is quite similar to a kiwi fruit.

These are by no means the only native plants that are edible; there are many that can be eaten (with varying degrees of palatability!). If you know what to look for, there is a veritable salad bar just waiting to be snacked on.

All of the aforementioned species also grow well in a horticultural setting if given what they need, so establishing them in your yard would give you greater access to nature’s pantry, and ease the pressure on natural populations. Remember that if you are wild harvesting native plants for food, they should be common species that come from areas free from pollution and should only be collected with permission. It is also good practice to only take a small proportion of the total, and to avoid digging up or otherwise killing plants.

If foraging wild food interests you, local ethnobotanist Sandra Walker has written an excellent field guide called *The Path to Wild Food*. It’s available in most bookstores as well as our online store here: <https://www.npss.sk.ca/store/publications/the-path-to-wild-food>

NPSS was Prominent in Prairie Program

Just before the COVID-19 crisis hit, the 7th Native Prairie Restoration/Reclamation and 5th Transboundary Grassland Partnership Workshops were held in Regina, SK at the Ramada Plaza on February 25-27, 2020. Throughout the event, the NPSS was a prominent figure.

NPSS Executive Director Chet Neufeld delivered a presentation entitled "Rare Plants and Ranchers – Stewardship Solutions to Species at Risk Conservation". The talk highlighted the NPSS' incredibly successful Rare Plants and Ranchers program, now in its 9th year and helping to conserve vital habitat for species at risk on over 132,000 acres (53,419 ha). The presentation can be found online here: https://www.pcap-sk.org/rsu_docs/documents/15-1-chet-neufeld-2020-nprpw.pdf

Chet also lead a "speed dating" case study session, where participants rotated through a number of presentations and discussions held at the tables. Because group sizes at any table were limited to 6 people, and the time limit per table was restricted to 15 minutes, participants were forced to engage early and often in order to address the issue. Topics were varied, and ranged from invasive species control to public engagement to research. After a typical conference format of sitting and listening, this was the perfect way to break things up, and participants responded positively to the exercise.



Prairie Conservation Action Plan representative Caitlin Mroz (right) awards Hilary Pinchbeck of the NPSS for best poster presentation. Photo by PCAP

Throughout the event, the NPSS had a constant presence with its booth in the tradeshow area, and also submitted two poster presentations that were displayed throughout the event. The first poster presentation was on the Rare Plants and Ranchers program, while the other was on our program to combat Flowering Rush (*Butomus umbellatus*), the latter of which won best poster presentation. You can find both poster presentations here: https://www.npss.sk.ca/rsu_docs/documents/

[floweringrush-poster---2019-edited.pdf](#)

https://www.npss.sk.ca/rsu_docs/documents/rare-plants-and-ranchers-poster---2019d1.pdf

A pdf version on the Rare Plants and Ranchers PowerPoint presentation can also be found here:

https://www.npss.sk.ca/rsu_docs/documents/rare-plants-and-ranchers---stewardship-solutions-to-species-at-risk-conservation.pdf

Volunteers Needed

Saskatchewan Ministry of Environment is looking for volunteers to help collect data for an ongoing spatial initiative that aims at differentiating native prairie from tame pasture in the province. If you have a plant background, are familiar with native, tame and invasive species in the province and are able to volunteer some time this summer while contributing to this project, please get in touch. The survey uses a free mobile app and requires driving around and checking different locations. We could cover some costs like mileage and meals.

Let us know if you are interested by emailing: bea.prieto@gov.sk.ca or watch <https://www.youtube.com/watch?v=F1DCoVyCcdE> for more information on this initiative.

What's Blooming?

Do you want to know what's blooming before you go out for a hike, or are you trying to find a certain native plant to photograph at its best? Look no further than the NPSS website! We keep an updated list of all the native plants currently flowering, compiled from reports we receive from our members across the province. The list can be found on our homepage, or by visiting the following link:

<https://www.npss.sk.ca/news-and-events/255>

The screenshot shows the NPSS website's 'What's Blooming?' page. The header includes the NPSS logo and navigation links. The main content area lists native plants currently in bloom, including American Vetch, Galliardia, Wild Rose, Wild Columbine, Hyssop, Bergamot, Prairie Coneflower, Black-eyed Susan, Philadelphia Fleabane, One-flowered Wintergreen, Richardson's Alumroot, Common Bladderwort, Common Butterwort, Fireweed, Western Red Lily, Scarlet Paintbrush, Bog Violet, Round-leaved Orchid, Blunt-leaved Bog Orchid, and Wild Flax. A sidebar on the right features a photo of a purple flower and text about Fireweed, noting it is named because it is one of the first plants to grow after a forest fire.

Are there species that we've missed? Tell us and we'll add them. We will continue to update the list until the end of September.

Rare Plants and Ranchers Update

Hilary Pinchbeck, NPSS Project Coordinator

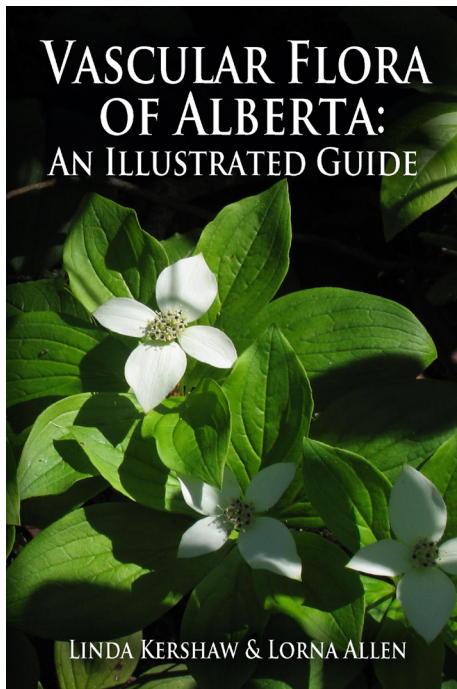
Hello members! I hope everyone has been staying safe and happy through the unusual times we've been having. Over the spring months I have been working at updating Rare Plants and Ranchers management plans to a new format. The updates include creating a more reader-friendly summary for landowners about the immediate threats to their plant species at risk populations, and the current state of the native prairie habitats on their properties. Additionally, I have been creating maps using ArcGIS for the locations of all the transects, invasive species, and any rare species we may have come across on these properties. I will be continuing to work on this until all of the geographical information for each property has been converted into the new ArcGIS format.

Alberta Gets a New Flora (and Maybe You Should Too)

Chet Neufeld, NPSS Executive Director

A new flora has just been published, and has already found a spot on my bookshelf. Although it's for Alberta, it contains all of our many shared species, and people living in the western half of Saskatchewan will find it particularly useful.

"Vascular Flora of Alberta: An Illustrated Guide" (Kershaw and Allen 2020) is a useful reference. This book is the first comprehensive look at the flora of Alberta since 1983. It includes all vascular plant species growing wild in Alberta, incorporating the 372 'new' species that have been found in the province in the past 40 years.



Also, since the 1980s, there have been world-wide changes to plant classification and taxonomy, and reconciling names in earlier references with the current nomenclature can be confusing and difficult. The guide follows current taxonomy, but it also includes names from previous regional floras. Both authors have worked as botanists in Alberta for over 40 years - Linda Kershaw in research and

consulting and as an author of popular field guides; Lorna Allen in protected areas inventory with Alberta Parks.

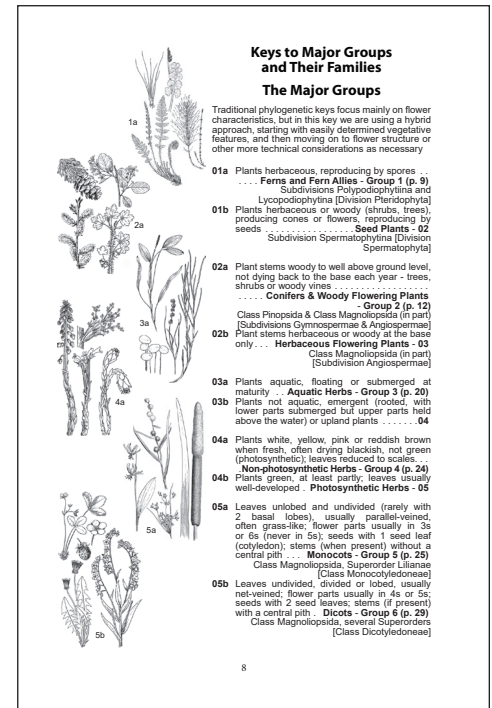
Traditional keys to plant identification often focus primarily on floral characteristics, but in this guide, they begin with easily determined vegetative features whenever possible, and then move on to flower structure or other more technical considerations, as necessary. Language is simplified where possible, and a

glossary is provided to define the more technical terms that are used. Excellent line drawings of each species are provided, highlighting distinguishing characteristics. The result is a highly usable guide that is invaluable for identifying vascular plants in Alberta.

The guide includes:

- Diagnostic features for 123 families, 657 genera & 2,010 species.
- Over 3000 illustrations focused on key characteristics.
- Labeled drawings illustrating the main features of most families.
- Currently accepted scientific names, along with alternate names used in recent local references.
- The status of all rare native species & exotic weeds.
- An illustrated glossary defining technical terms.

The Vascular Flora of Alberta: An Illustrated Guide is now available through Amazon.ca and Amazon.com.



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>



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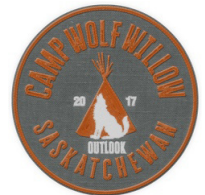
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Behind the Scenes: Faces of the NPSS

Hey! My name is Kyra Mazer and I am a new board member of the Native Plant Society of Saskatchewan. I received a B.S.A. (2018) from the University of Saskatchewan in Environmental Science, with a focus on Applied Plant Ecology. My studies have led me to a position with Parks Canada in Waterton Lakes National Park working for the vegetation management crew. My division focuses on controlling invasive Spotted Knapweed (*Centaurea maculosa*) and Downy Brome (*Bromus tectorum*). Additionally, the crew manages unique vegetation conservation and restoration projects. One includes collection and germination of fescue grassland grasses and forbs to revegetate degraded areas in the foothills. The park is also experiencing an infestation of



white pine blister rust (*Cronartium ribicola*), which infects white pine species in the park: Whitebark Pine (*Pinus albicaulis*) and Limber Pine (*Pinus flexilis*). However, there are white pine individuals that appear to be resistant to infection. In response, the crew protects these individuals so that mature seeds can be harvested to produce white pine blister rust resistant saplings to repopulate the park.

Outside of work, I am an avid hiker, biker, skier, canoeist, and backcountry camper. On these adventures, you can find me photographing specimens and appreciating wondrous skies. My favourite native Saskatchewan plant is the One-flowered Wintergreen (*Moneses uniflora*).