

Prairie buttercup, Ranunculus rhomboideus

From Your Editor:

Welcome to the Wildflower News for March.

Some of us have planted our native plant seeds, and some of us are still working on it!

If any of our readers are growing from seed, how about sharing some photos of your seedlings when they're between 2 to 4-5 inches high with us? Similar to the photos on the bottom of the last page of this newsletter.

We would love to see what you've chosen to grow, and offer our oohs and aahs on your progress!

You can send your photos to: engedmonton@gmail.com with 'Native Seedlings' in the subject line.

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LETTERS:

Hi there, really enjoy your newsletter - great work! thanks Jenny

Thank you Jenny for your appreciation and kind compliments. So glad you are enjoying the Wildflower News.

Thank you for publishing the review on the book, *Unearthed*. I borrowed it in audiobook form from the library and enjoyed the plant stories and the Edmonton references. Nice to have my own city in published form. Marie Walker

It is a good read, isn't it Marie? I thoroughly enjoyed it too. J.G.

Thursday, March 11 - Alberta Native Plant Council - Final Plant Study Group webinar - Latifa Ahmed-Pelletier of ALCLA Native Plant Nursery will be speaking on "Growing Native Plants." For access, email outreach@anpc.ab.ca

March 15th - 19th - Saskatchewan Prairie Conservation Action Plan (SK PCAP) Prairie's Got the Goods Week 2021 PCAP is presenting a series of webinars about the ecological goods and services provided to us by the native prairie ecosystem. The ranching industry isn't just about cattle, but prairie rangelands are also for prairie wildlife! Presentation topics include flood control, pollination, carbon sequestration and climate change.

All presentation times are at 12:00pm MT (Saskatchewan and Alberta), with the exception of VC Bear. Her presentation will be at 3:00pm MT

https://www.pcap-sk.org/upcoming-events/prairies-got-the-goods-week?fbclid=lwAR1jFEHX26xhvyacz-r2DGL3G7iPhd6UAnHZWsXP5WKbDrEb3d5w8vLr8iY

Seeking Input on the Kitaskino Nuwenëné Wildland Expansion Proposal

The Government of Alberta is seeking public feedback on a proposed expansion of Kitaskino Nuwenëné Wildland in northeast Alberta. The expansion will add about 143,800 hectares of land to the wildland provincial park. The expansion aligns with the Alberta Crown Lands vision, which guides our management of Alberta's rich, natural heritage of Crown lands.

Expanding the Kitaskino Nuwenëné Wildland will:

- · Help protect the landscape, watersheds and wildlife in the area, including bison and woodland caribou.
- Support Indigenous peoples' traditional activities, including the exercise of Treaty rights.
- · Create recreation opportunities for Albertans.

Information about the proposal and an online survey is available at the following link:

www.alberta.ca/kitaskino-nuwenene-wildland-park-engagement.aspx

Feedback will be collected until March 15.

Saturday, March 20 - Alberta Native Plant Council Annual Workshop via webinar on the theme of "Northern Native Plants and Ecosystems." Check the ANPC website at https://anpc.ab.ca to register. The workshop is free but donations are welcomed.

30 Apr - 3 May - Upcoming bioblitz in the greater Edmonton region - **City Nature Challenge 2021 -** stay tuned! More information to follow in the April issue.

NEWS... If you have a news item involving native plants that you would like posted, please email us at engedmonton@gmail.com

OLESKIW SURPLUS SCHOOL SITE ZONING REVIEW

A forthcoming rezoning application in the Oleskiw Park site in Westridge-Wolf Willow-Oleskiw community in the west end is causing a stir. This may be of interest to anyone living in this or surrounding neighbourhoods. Some information on the rezoning of Oleskiw Park/Natural Area from the Wolf Willow Westridge Country Club Community League: 1.46 hectares of the area is under potential rezoning by the City of Edmonton so that it may be sold for residential development. https://www.www.ccl.com/featured/oleskiw-surplus-school-site-zoning-review/



Take the survey, https://engaged.edmonton.ca/oleskiwsurplus
NOTE: The deadline for submission is March 16 as noted under the survey.
Lots of information in the FAQ's.

This has precipitated a request to City Council for further protection for the stands of aspen trees in the north of the park site (which form Natural Area NW638), by slightly expanding the area and placing it under a Natural Area Protection zone. It is proposed that a natural area management plan, a necessary accompaniment to the rezoning, would be carried out by citizen scientists. More information to follow on the ENPS website and Facebook page soon.

Red outlines the Oleskiw Park site.

Green outlines NW 638 Natural Area.

Blue outlines the area proposed for rezoning. Note that the community will lose one soccer field, completely lose the south tree stand, and a portion of the north forested area, NW 638 Natural Area.

Calgary - A Bee City!

The City of Calgary was certified as a Bee City through Bee City Canada on December 19, 2019, committed to educating the public and their employees on how to conserve pollinators and provide pollinator habitat within their own private spaces. In addition to providing information that citizens can use in their own yards, they are undertaking a lot of other work committed to helping pollinators such as restoration work and transformation of roadsides into pollinator habitat.

The 2019 Bee City application is located at https://beecitycanada.org/wp-content/uploads/2020/01/Bee-City-Canada-Application-Calgary-19.pdf

The City of Calgary now has online resources, *Bee a polli-neighbour*, available right on The City's webpage for reference at <u>Bee a polli-neighbour (calgary.ca)</u>.



Native vegetation such as vetch, blue flax, and a variety of grasses grow along a roadside in Calgary.

Website links provided by Jenna Cross, B.Sc., P.Biol., a Parks Ecologist (City-wide Botanist/Restoration Specialist) in Urban Conservation, Wetlands and Capital Planning, Parks South, The City of Calgary.

Spring Seed Planting by Cherry Dodd

Native wildflowers are always more of a challenge to grow than garden perennials, and one of the reasons is that most native seeds need a period of cold and damp for several weeks before they will germinate. This process is called stratification.

However, there are some native flower species that do not need stratification and will germinate without any pretreatment when planted in the spring.

They can be planted straight into the garden any time between mid-April and the beginning of June. Remember to label them well so you can spot them as they come up.

Sow the seeds quite thickly as they often have a lower germination rate. The average germination time is two to three weeks, but some seeds could take anywhere from one week to six weeks to emerge, so be patient.

Native plants are always small in the first year as they put all their energy into growing a strong root system before bothering with top growth. Because of this slow growth habit they very often get lost in the garden.

Plant your seeds somewhere close to the path or the house so that you can keep an eye on them.

Another way to keep a close eye on your seeds is to plant them in a 15 cm diameter or larger pot with potting soil, and keep them in a shady spot until they germinate. Put the pot in a shallow container so that you can water from the bottom and keep the soil moist. The advantage of this method is that you know exactly where you planted the seeds, and there are no weeds to confuse you when the seedlings sprout. You will also get a higher germination rate.

Move the pot to a semi-shade location as soon as germination occurs, and transplant the seedlings to individual pots of garden soil once they have a couple of sets of leaves.

When the seedlings are large enough to handle they can be transplanted into the garden. Water them for the first week or two after transplanting.

Here is the list of the species can that can be sown outdoors as soon as the soil is dry enough. It includes some of our most colourful native flowers. Don't worry about a late spring snowfall. These seedlings are tough and snow won't bother them. The only exception is Gaillardia, it is not frost-hardy and that is why it takes so long to germinate.

- 1. Alpine Hedysarum, *Hedysarum alpinum*. Soak the seeds of this species in hot water for 12 hours before planting.
- 2. Common Tall Sunflower, Helianthus nuttallii)
- 3. Gaillardia, Gaillardia aristata
- 4. Giant Hyssop, Agastache foeniculum
- 5. Golden-aster, Heterotheca villosa
- 6. Meadow Blazingstar, Liatris ligulistylis
- 7. Nodding Onion, Allium cernuum
- 8. Smooth Fleabane, Erigeron glabellus
- 9. Wild Bergamot, Monarda fistulosa
- 10. Wild Blue Flax, Linum lewisii



Most native grasses can also be sown directly outside, except for Blue Grama Grass which needs stratification. If you have native seeds that need stratification it's not too late to do this. Put the seeds in a small plastic bag with a little damp peat moss or sand.

Put the bag in the fridge for six weeks, but check every few days to make sure your seeds are not germinating prematurely. Plant in the usual manner when the time is up. Another method is to plant the seeds in a pot and water them, and then place the pot in a plastic bag so the soil doesn't dry out, and put the pot in the fridge for 6 weeks. Leave the plastic bag open so there is air circulation and the soil doesn't go mouldy.

On Vetches and Vetchlings by Patsy Cotterill

On walks through the wooded slopes of the river valley in Rio Terrace I'm accustomed to seeing the skeletons of American vetch (*Vicia americana*) and purple peavine (*Lathyrus venosus*) with their bleached leaves and still-dangling, twisted pods straggling over the winter-bare shrubbery. They remind me how common these species are and how tall they can become as vines. They belong to the only two native genera (*Vicia, Lathyrus*) in the pea family (Fabaceae, originally Leguminosae) in Alberta that have tendrils. These thread-like modifications of the terminal pair of leaflets of their pinnately compound leaves coil around adjacent vegetation that provides support for the plants'

weak stems and gives them access to sunlight.



The remains of purple peavine are visible scrambling over the bush even in winter; some seeds remain in the dehiscing pods.

Rio Terrace; 2021-02-04

The Fabaceae family is a fascinating one, the third largest angiosperm (flowering plant) family in the world, with some 19,000 species. Its members provide important foods (peas, beans, peanuts, soybeans, etc.), as well as forage crops such as alfalfa. It also contains a number of invasive species, such as broom (*Cytisus scoparius*) and gorse (*Ulex europaeus*) which are major weeds in cool, moist climates such as B.C. and New Zealand, and the infamous kudzu (*Pueraria montana*) in the southern U.S. Their ability to "fix" atmospheric nitrogen in the soil by means of *Rhizobium* bacteria in their root nodules, resulting in an increase in soluble nitrates in the soil available to plants, may be one reason why Fabaceae members can colonize disturbed habitats and poor soils so readily. Interestingly, most species in the temperate world are herbaceous, whereas those in tropical regions are trees and shrubs.

Members of the large subfamily Faboideae are easy to recognize on sight by their characteristic "pea" flowers, compound leaves divided either pinnately or palmately into leaflets, the presence of appendages called stipules at the base of the leaf stalk, and the usually elongated pod-like fruits or legumes that split along both sides to release the relatively large, hard seeds. Our plants are also easy to identify to species. The 78 species in Alberta fall into 23 well-defined genera, of which only three have sufficient species to cause difficulty in distinguishing them: *Astragalus*, the milk-vetches, with 27 species, *Oxytropis* with nine, and *Lupinus* with eight. Only our two species of *Dalea* (formerly *Petalostemon*), the prairie clovers, have flowers that may not be immediately recognizable as belonging to the pea family. Nevertheless, some similarities between the vetches and peavines or vetchlings seem to cause confusion.

In keys, *Vicia* and *Lathyrus* are separated first and foremost on rather technical characters of the style, best viewed with a hand lens. The style is thread-like and hairy at the apex in *Vicia*, but somewhat enlarged and flattened towards the tip, and hairy along the inner side, in *Lathyrus*. In fact, though, once recognized, the two genera are easily told apart. *Vicia* has narrower and more numerous leaflets than *Lathyrus*, which are broader and fewer. Leaflets in *Vicia* end in a definite point or mucro at the apex, which is absent or much less obvious in *Lathryrus*. Flower colour differences also provide clues. Cream-coloured vetchling, *Lathyrus ochroleucus* has yellowish-white flowers as both its scientific and common names imply, and those of purple peavine (*L. venosus*), are usually more pink-purple than the blue-purple of the flowers of *Vicia* species.





American vetch (*Vicia americana*) flowers and fruits. The stipules are visible in the picture on the left as pointed, arrowhead-like structures. Photos taken 2019-07-28 and 2009-08-28.

Our native American vetch (*V. americana*) has larger flowers (12-23 mm) in loose clusters of 2-9, and fewer leaflets of 8-12 per leaf, compared to the non-native tufted vetch (*V. cracca*) which has somewhat smaller flowers (10-15 mm long) densely packed into one-sided racemes of 15-40 flowers. These are usually more obviously blue than the blue-purple flowers of American vetch. Leaflets are more numerous at 10-20.



Tufted vetch (*Vicia cracca*) forms tangled masses carrying numerous pods. Photo taken on 2010-07-02.

Leaving aside the rare marsh pea (*Lathyrus palustris*), recently discovered in northeastern Alberta, we have two *Lathyrus* species, both locally common. The difference in flower colour is an easy way to tell the two apart, but when flowers are absent several other characters will distinguish them. The stipules are large and rather leaf-like in cream-coloured vetchling, but small and inconspicuous in purple peavine. Leaflets are in 3-4 pairs and lack hairs in *L. ochroleucus*, but occur in 4-6 pairs and are hairy underneath in *L. venosus*. The former tends to occur more often in grasslands and meadows than *L. venosus*, which is a plant of forest edges and brush, amongst which it tends to be a more vigorous climber than its congener.





Left, cream-coloured vetchling (*Lathyrus* ochroleucus) shows the pair of relatively large, pointed, wing-like stipules at the leaf base as well as some narrow terminal leaflet segments that will become tendrils.

Right, purple peavine (*Lathyrus venosus*) has tiny pointed stipules, somewhat narrower leaflets and congested racemes of purple-pink flowers. Branched tendrils are also evident. The photos were taken on 2013-06-09 and 2018-06-22.

Cream-coloured vetchling blooms earlier than purple peavine and has an extended flowering period.



Flowers of vetches and vetchlings are attractive to insects such as bees, butterflies and moths, which visit for pollen and nectar. (The flowers of the purple peavine also appear to have been eaten off completely!)

I have not tried to grow any of these species, although purple peavine in particular would make a nice addition to a treed or shrubby border. All except purple peavine have appeared spontaneously in my yard. I remove American vetch only if its biomass becomes sufficient to drag down herbaceous material, although it usually appears to lean on my dogwood for support. The Eurasian native, tufted vetch, I do not tolerate despite its attractive flower sprays. It seems to have spread very much in the West in recent decades – no doubt finding our calcareous soils and abundant disturbed habitats much to its liking. It is very aggressive, forming tangled masses along roadsides for instance, and even managing to smother shrubbery. In Europe it is a common as a tetraploid (i.e., having double the normal diploid chromosome number) and I suspect it is the tetraploid that is present here and accounts for its robustness as a weed.

As a matter of interest, if anyone has any experience growing these plants please let ENPS know!

References

Moss, E.H. 1983. 2d ed. revised by J.G. Packer. Flora of Alberta. Toronto, University of Toronto Press. Kershaw, Linda & Lorna Allen. 2020. Vascular Flora of Alberta: An Illustrated Guide. Self- published. Kindle Direct Publishing. (Available from Amazon).

All photos by the author.

Websites of the Month:

More links and information from Jenna Cross to browse on the Bee City and Bee a Polli-neighbour programs in Calgary.

A collaborative project between Roads and Parks put The City on the momentum to gain formal Bee City certification through Bee City Canada. The work below features the first Bee Boulevard that was constructed in Calgary, with David Misfeldt from Calgary Roads, Boulevards taking the lead as Project Manager and Jenna Cross from Calgary Parks, Urban Conservation, providing vegetation expertise. Additional pollinator habitats and bee boulevards are now being constructed throughout Calgary.

CBC interview: https://www.cbc.ca/player/play/1559268931567

CBC evening news about the Bee Boulevard at approximately minute 28 in the newscast. https://www.cbc.ca/player/play/1559326787572

CBC article regarding the SARA-listed gypsy cuckoo bumblebee find in the project area: https://www.cbc.ca/news/canada/calgary/calgary-bee-boulevard-discovery-endangered-1.5106593

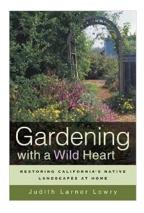
An older article that CBC put out when the project was first initiated. Calgary Roads involved the local school children with the planting showy milkweed (*Asclepias speciosa*), a host plant for the monarch butterfly. In addition to the planting, The City provided outdoor presentations to the children about the project and pollinator conservation https://www.cbc.ca/news/canada/calgary/calgary-pollinator-program-1.4315205

Society of Ecological Restoration newsletter: https://chapter.ser.org/westerncanada/2019/04/18/creating-a-buzz-native-bee-restoration-in-calgary/

This is an article Jenna Cross wrote for the Lakeview Newsletter regarding what homeowners can do to help pollinators. The article is on page 14 and 15. https://drive.google.com/file/d/1Hj3mcwyeTz0PAJwU4udezE4rKscyIPZ4/view

Recommended Reading:

Book review for *Gardening with a Wild Heart: Restoring California's Native Landscapes at Home* submitted by Kate Wilson



I read this book while living for a time in the chaparral shrubland that spreads across the interior mountains of western California. I came to love the seasonal change as the grasses, bulbs and forbs transferred their lush winter growth – opposite to our seasonal response – into the tans, dusty silvers and greys of dormancy in the heat of high summer. Though this book is written from the perspective of an arid ecosystem, I've found there are aspects that replicate our own challenging climate. The native grasses and wildflowers of central Alberta have evolved to thrive in extreme conditions, and they display many of the chaparral's soft colours and hardiness of dormancy – except in the depth of winter. In *Gardening with a Wild Heart*, author Judith Larner Lowry captures the personal, the poetic and the practical where "gardening at the seam" of wildland and urban meet. Though written only 20 years ago, this book has become a classic. It's a little hard to get hold of, but is available on Amazon or directly from the University of California Press.

Lifetime ENPS Membership

You can now become an Edmonton Native Plant Society member for life. Memberships are \$20 and can be purchased by emailing enpgmembership@gmail.com or visit one of our booths at plant events in your area.

Aims of the Edmonton Native Plant Society:

Promote knowledge of the Edmonton area native plants.

Conserve our native plant species and their habitats.

Preserve native plant species and habitat for the enjoyment of present and future generations.

Educate individuals, business and local governments about native plants.

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Cherry Dodd, editor
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Baby seedlings: meadow blazingstar, *Liatris ligulistylis*; wild blue flax, *Linum lewisii*; wild beebalm, *Monarda fistulosa*; blanketflower, Gaillardia aristata. Grown and photographed by Manna Parseyan, 2021.