



ENPS volunteer

Prairie Buttercups - *Ranunculus rhomboideus*

From Your Editor:

Welcome to the Wildflower News for May. Our usual May snowstorm and cold snap was a little early this year but my native plants emerged unharmed.

My prairie buttercups are in full bloom and my one Prairie Crocus is a treat to see.

Not all native plants are frost-hardy, but the more tender ones such as Low Milkweed won't pop up until late May, so don't despair if you have some species blooming and some still dormant.

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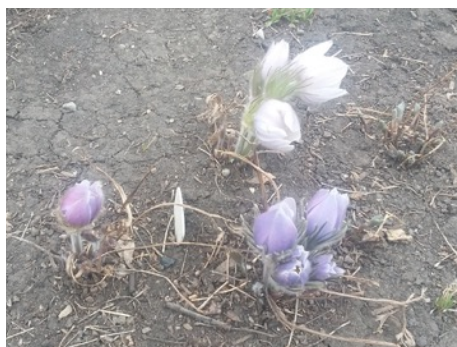
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Something Different:

The Nature of Things: Something in the Air

Native prairie crocus in local gardens and elsewhere: a photographic essay -

From Alan Jones's boulevard garden - sequential pictures of my prairie crocus which appropriately flowered April 21. First time in three years. Left to right: April 21 to 25.



From Kate Wilson - I took these photos this morning at the Alberta Avenue Community Garden, April 25. The prairie crocuses are rescue plants from the McLeod Creek road widening and doing well.



From Kathleen Mpulubusi - April 14 -
1st Crocus of the year at Fort Saskatchewan Prairie!



From Hubert Taube -
April 21 at NW Bruderheim Natural Area



From Cheryl Kyle - Crocuses blooming April 14 in the triangle between the Beaver and Sand rivers, northeast of Edmonton, 22 days earlier than last year.



WN: Thank all of you for sharing spring with the rest of us; Alan and Kate for letting us know of little pocket gardens of native plants in the city; Kathleen, Hubert (delightful whorled flower buds!), and Cheryl for showing that they're still out there in the wild. Can't help but be awed looking at these beauties!

(By the way, the botanical binomial for Prairie Crocus, *Anemone Patens*, through DNA testing has been renamed *Pulsatilla nuttalliana*.)

EVENTS - if you would like us to list your event that involves native flowers, please email us at engedmonton@gmail.com by the 20th of the previous month.

Edmonton Native Plant Society and the Edmonton Nature Club - As an extension of the Plant ID Course held last year a series of Plant ID Walks are being scheduled. All are welcome, although membership in ENC is recommended.

Thursday, May 2 - Bunchberry Meadows Conservation Area

Time: 9:30 to noon

Sunday, May 12 - Halfmoon Lake Natural Area

Time: 10:00 am to 1:00 pm

For details of these events consult the calendar of the ENC website (edmontonnatureclub.org/calendar.html)
Additional Walks later in May will also be posted on the ENC calendar.

Saturday, May 11 - that Bloomin' Garden Show and Art Sale - Garden info and sales; artisans; gallery artists; and music. ENPS will have lots of Edmonton area native wildflowers and seeds for sale. Further info: click [here](#).

Time: 10:00 am to 4:00 pm

Location: Alberta Avenue Community Centre, 93 St. and 118 Ave.

Admission: Free

Saturdays, May 11 and May 25 - Garlic Mustard Pulls - Edmonton Native Plant Group and the City of Edmonton are once again working together to help remove prohibited noxious garlic mustard from the Mill Creek Ravine area.

Volunteers are needed to come and help remove this weed. Water and light snacks will be provided.

For further information: [Garlic Mustard Pulls](#) To sign up: [volunteer](#)

Time: 9:30 am to 11:30 am

Location: Meet at the corner of 91 St. and 77 Ave.

Admission: Free

Saturday, May 11 - A Day in Dawson - *Sharing Stewardship and Breaking Bread While Learning to Love the Land* - litter clean-up, a picnic, live music, and nature speakers. The Edmonton River Valley Conservation Coalition will be partnering with Waste-Free Edmonton. Patsy Cotterill of the Edmonton Native Plant Society plans to lead some nature walks focusing on local botany. ENPS hopes to have a table with native seeds and plants; if you would like to volunteer for a 2-hour shift please email engedmonton@gmail.com

Time: 10:00 am to 2:00 pm

Location: Dawson Park picnic shelter (very close to a parking lot)

Admission: Free

Saturday, May 25 - Fulton Place Gardener's Swap - This is always an excellent perennial exchange and it also includes a garden books and garden tools and pots swap.

ENPS always donates to the exchange and we also have a table where we sell local native perennial flowers that are organically grown.

Time: 9:00 am to noon

Location: -Fulton Community League, 6115 Fulton Road

Admission: Free

Monday, May 27 - Edmonton Horticulture Society talk - ENPS will have a table in the foyer and we will be selling local native perennial flowers before and after the talk.

Time: 6:45 to 9:00 pm

Location: Central Lions Seniors Recreation Centre - 11113 113 St

Admission: Free to members, non-members \$10.00

Saturday, June 1 - Strathcona in Bloom Native Plant Sale As a fundraiser for Strathcona in Bloom, the Edmonton Native Plant Society will be selling native wildflowers. For info and a map: [click here](#).

Time: 9:00 am to noon

Location: Broadmoor Lake Park - Plaza

Admission: free

If you're just starting to garden with native plants and not quite sure on what get, have a look at a list of favourite plants of pollinators - a rundown of some of the best species and the conditions that they prefer:

[Plants for Pollinators](#) - the lowdown on what to choose

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

Beware of “Wildflower Seed” Mixes

Just a reminder that Wildflower Seed Mixes are not as good as they sound. Most of these mixes consist of non-native, non-hardy species; it is even possible that seeds of prohibited and/or noxious weeds in Alberta are in the mix. Technically the seeds are from “wildflowers” somewhere in the world, but if you’re looking for wildflowers to help our native insect and bird populations, then stick to Alberta and Edmonton area native plant seeds.

Check out Alberta Native Plant Council’s [Guidelines for the Purchase and Use of Wildflower Seed Mixes](#)

New ENPS Table Runners



If you haven’t been to any ENPS events yet, keep an eye out for one of our new-this-year table runners that hang down the front of a table. Just another way of drawing attention to our presence!

These were the top two designs chosen by ENPS board members from a field of thirteen submissions, and both turned out to be by Judith Golub who was absent from the meeting and didn’t even vote! Needless to say, she feels quite honoured!

...the darling buds of May...by Patsy Cotterill

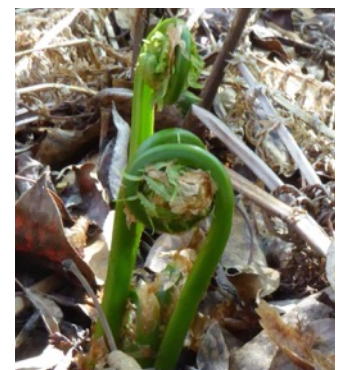
Nature is a genius at packaging organs and organisms into confined spaces. An obvious example is the seed, whose embryo and accompanying food source fit into a structure that can be less than the length of a millimetre. The egg, and the mammalian fetus are other examples. I remember being particularly struck by the sight of a near-full-term deer fetus preserved in a large jar in a laboratory. The folding of its legs and indeed the configuration of its whole body was such that not only could it fit within its mother’s womb but also that it could be delivered safely to the outside world. (I felt a pang of grief that the fawn had never seen life, although it was perfectly prepared for it.) For botanists, an easy way to glimpse efficient packing is to observe the unfolding of leaves and flowers in the spring and summer, after a winter of confinement within the bud.

Buds have intrigued plant morphologists for some time. **Vernation** is the term for the arrangement of young leaves in a leaf bud before it opens, best seen when the bud opens and the contents expand. The word comes from the Latin for spring (the season), *ver* and *vernus*, which also form the root of the word vernal, meaning to do with spring. Perhaps it was coined because spring is by far the best time in which to witness such arrangements. (It should not be confused with vernalization which, according to Wikipedia, is the induction of a plant’s flowering process by exposure to the prolonged cold of winter or by an artificial equivalent. Nor should it be confused with venation, the pattern of nerves within a leaf.)

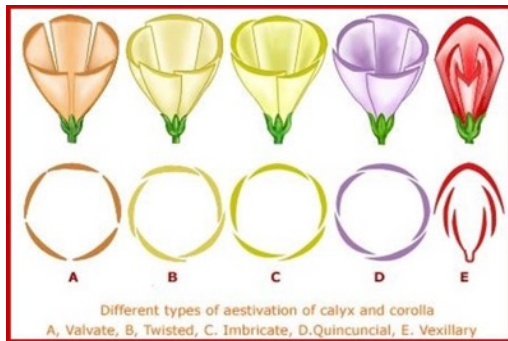
Aestivation is the arrangement of flower structures (petals and sepals) in a flower bud before it opens. (A commoner definition is the torpid or dormant state certain animals enter during hot or dry weather (in contrast to hibernation), but we are only concerned with its botanical meaning.) It derives from the Latin word, *aestus* (heat, as in summer) and is likewise appropriate because, of course, flowers open in summer as well as spring, the timing depending on species.

Various terms describe the different types of arrangement in leaf and flower buds. A commonly recognized type of vernation is called circinate, characteristic of ferns (except for one group). The emerging fern frond is tightly curled so that the sensitive growing tip is protected within the centre of the coil, which slowly unfurls. Ostrich ferns (*Matteucia struthiopteris*), bracken (*Pteridium* species) and tree-ferns provide obvious examples, the uncoiling fronds often being referred to as fiddleheads.

Ostrich fern fiddlehead, *Matteucia struthiopteris*, in an Edmonton ravine. (photo by J. Golub)



The buds of trees with large leaves that unfold pleated between the veins to save space, and expand to reveal a thin, delicate-textured blade, are among my favourites, including those of European broadleaf species such as beech, birch, lime and horse-chestnut.



Five main types of aestivation are commonly recognized in flowers: valvate (e.g., lilac), twisted (or contorted, as in *Phlox* species and lesser periwinkle, *Vinca minor*), imbricate, quincuncial and vexillary. The last category applies to members of the pea family (Fabaceae) in which the large standard petal folds over and encloses the four smaller petals. It should be easy to see this if we examine the bud of a golden bean (*Thermopsis rhombifolia*) which will be appearing in our grasslands soon.

<https://ui-ex.com/explore/aestivate-clipart-estivation/>

So, here's a possible spring assignment. Why not spend some time observing leaves and flowers close-up as they emerge from their winter buds, as well as the shoots of herbaceous plants as they push up from the ground? Photographers can send their best pictures to us, preferably identified, but at least with a note as to place and date, and we will feature the best ones in WN and/or on our website. You can continue doing this all summer as different species come into flower. Following up with pictures of the same plant (or the same species) when the leaves and flowers are fully developed, and later the fruits, will give you a record of the plant's complete life cycle.

Here are some suggestions for plants to look at. The poplars will shortly be unfolding their leaves, as will the birches and elms. If you have an Ohio buckeye tree in your yard or neighbourhood, take a look at how their leaves emerge. The large, unfolding palmate leaves of the horse chestnut family (Sapindaceae) are a delight to behold. Remember that conifers produce new shoots and leaves in the spring, so look out for new shoots of spruce emerging from papery brown bud scales, or pine leaves sprouting from their papery bundle sheaths. On the ground, look for the flowering shoots of the coltsfoots bursting through, and later on, of wild sarsaparilla. If you grow *Hosta* lilies, check these as the leaves develop – apparently, they have convolute vernation, meaning that one margin of the leaf overlaps the blade of another, creating a tube effect.

While you are at it, make a study of the position of the flower buds in relation to the leaves – are they close together or widely separated? (See the picture of Manitoba maple buds.)

Above all, have fun! Seeing things at the macro level can only increase your appreciation of plants!



Female Manitoba maple flower and male Manitoba maple flowers



Red elderberry, *Sambucus racemosa*, in bud (photo by Jiri Novak)...

...and in flower.



Left: Prairie crocus buds, *Pulsatilla nuttalliana*

Right: Chokecherry buds, *Prunus virginiana*

All photos by Patsy Cotterill unless otherwise noted.

References:

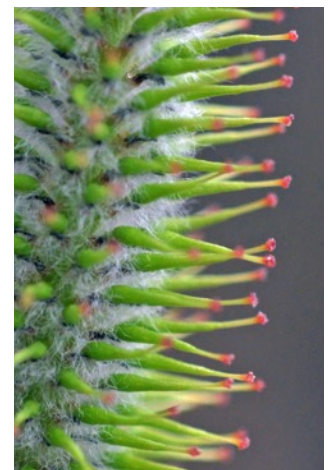
<https://en.wikipedia.org/wiki/Vernation>

[https://en.wikipedia.org/wiki/Aestivation_\(botany\)](https://en.wikipedia.org/wiki/Aestivation_(botany))

Looking closely...by Judith Golub

In keeping with the above article, and being observant on a macro level, here's a sampling of what wonders surround us and what we can see when we look. It might seem right now as if not much is going on out there, but there is life happening, albeit on a small scale.

Willow, *Salix* sp. - The catkins consist of many dozens of flowers in a linear inflorescence. The black 'spots' are hairy bracts at the base of each flower, protecting the reproductive organs from the cold, and giving the characteristic 'pussywillow' look.



Left: Male catkin - the stamens with orange anthers that are just starting to show the yellow pollen emerging.

Right: Female catkin - in full flower showing the developing fruit. The green ovules are tipped with fresh red stigmas ready to receive pollen.

Photos by Wayne Oakes.

Canada buffaloberry, *Shepherdia canadensis* - Note the scales on twig, leaf bud and flower bud.



Left: Female flower showing stigma, style, and sepals.

Centre and right: Male flowers with reflexed sepals. Far right anthers have pollen.

Photos by Wayne Oakes.

Beaked hazelnut, *Corylus cornuta*



Left: Female and male catkins on the same branch. Male pollen-bearing catkins can elongate to three inches and hang from buds on 1-year-old branches.

Right: Female flowers are bud-like with a spray of red styles at the tip.

Photos by Hubert Taube.

Aspen Poplar, *Populus tremuloides* - Aspen poplar is dioecious, meaning they are either male or female.



The pink colour is from the pollen sacs, which will become yellow when the powdery pollen is ready to be shed and released to the spring winds.

Photo by Kathleen Mpulubusi.

Thank you Wayne Oakes, Hubert Taube, and Kathleen Mpulubusi for your keen eyes in showing us beauty in small things, and what one can see when one looks closely.

Something Different:

The Nature of Things: Something in the Air

Air pollution is a significant risk factor everywhere — even places we think of as “safe.” This documentary investigates: Just how dangerous is the pollution we can’t see?

<https://www.cbc.ca/natureofthings/episodes/something-in-the-air>

Lifetime ENPS Membership

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

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Arrow-leaved coltsfoot - *Petasites frigidus*