

From your editor:

Welcome to the Wildflower News for September.

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Something a little different



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Fleabane, *Erigeron glabellus*, and
blanketflower, *Gaillardia aristata*.

Native Plants in Local Gardens

From Patrick Kyle:

Symphotrichum puniceum, purple-stemmed aster. The stem is not purple yet as it is first year plant but is hairy. Grown from seed this spring.



WN: Pretty impressive for a first-year plant! Lovely photos, and great shot of the hairy stem, thank you.

From Alan Jones:

Flowers in my patches for August - showy aster, *Eurybia conspicua*, meadow blazingstar, *Liatris ligulistylis*, and golden-aster, *Heterotheca villosa*.



WN: Quite a good show still, Alan!

From Katrina Wilson:

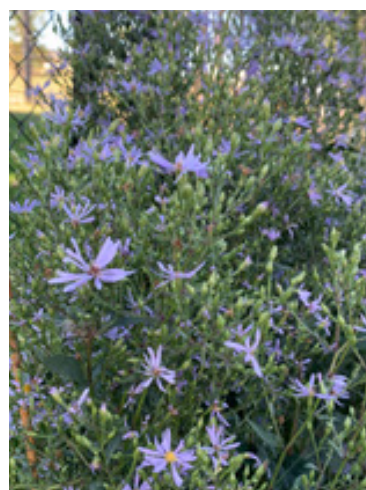
Opened seed heads from Canada violet, *Viola canadensis*, at the Alberta Avenue Community Garden wildflower bed. Photo taken around mid-July. The seeds were early this year.



WN: Aren't those heart-shaped leaves gorgeous? Hope you managed to collect a few seeds for future sowings!

From Natasha Stairs:

Some current photos from my garden. A second round of yellow evening primrose, *Oenothera biennis*, blooms after an early August trim; meadow blazingstar, *Liatris ligulistylis*, and immature yellow evening primrose, *Oenothera biennis*, seed pods; Lindley's aster, *Symphyotrichum ciliolatum*.



WN: What a lovely collection of natives.

What are the odds? Three different native plant gardeners each sent a different aster species photo!

EVENTS - if you would like to post an event that involves native flowers, please email us at engedmonton@gmail.com

September 11, Saturday - Fulton Place Gardeners Swap will take place outdoors at the Fulton Place Community League. There will be a table devoted to a native plant swap, and it will be staffed by Cherry Dodd and other ENPS volunteers. They will make sure the plants are all identified and will answer questions.

There is no ticket system this year so you are free to bring and take home whatever you want. ENPS will be donating some plants, so bring your extras and take home some treasures.

Manna will be there with Arnica Wildflowers. She will be selling a wide range of native plants in case you had your heart set on a particular species but couldn't find it.

Time: 9:00 a.m. to noon

Location: Fulton Place Park, 6115 Fulton Rd.

Admission: Free

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

Nature Needs Your Vote

In light of the forthcoming federal election, **Nature Canada** has put together a "Nature Platform - What Nature Needs from Canada." Canada is home to vast boreal forests, bountiful oceans, sprawling grasslands, and a myriad of other ecosystems. But the impacts of climate change and species loss are taking a toll. Fires, floods, droughts and severe weather have left wildlife in crisis; our country needs a credible plan to halt and reverse nature loss.

In brief:

1. Protect at least 30% of lands, freshwater, and ocean by 2030.
2. Support Indigenous-led nature conservation.
3. Invest in nature's crucial role in fighting climate change.
4. Restore urban biodiversity and expand access to green space for all.
5. Advance environmental justice and prevent environmental racism.

To pledge to vote for nature, to read more, or to find sample questions to ask your candidate about their investment in nature protection: [https://naturecanada.ca/nature-platform/?](https://naturecanada.ca/nature-platform/?utm_campaign=Election&utm_medium=email&utm_source=engagingnetworks&utm_content=NaturePlatform#platform)

[utm_campaign=Election&utm_medium=email&utm_source=engagingnetworks&utm_content=NaturePlatform#platform](https://naturecanada.ca/nature-platform/?utm_campaign=Election&utm_medium=email&utm_source=engagingnetworks&utm_content=NaturePlatform#platform)

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Bow Valley Parkway Proposed Partial Closure: A Good Idea for Wildlife and People

The Alberta Wilderness Association is asking people to please consider commenting during the public review period for the proposed partial closure of the Bow Valley Parkway in 2022, which lasts until September 9, 2021. More information can be found on the Parks Canada website <https://www.pc.gc.ca/en/pn-np/ab/banff/info/gestion-management/cyclisme-cycling>

Bedstraw, *Galium* spp., Observations ... A new species for Alberta? by Hubert Taube. Photos by author

For most of my life I've recognized but one bedstraw plant, presumably northern bedstraw, *Galium boreale*, most of the time. About 4 - 5 years ago I became aware that there are several species. The second species I was able to identify was sweet-scented bedstraw, *G. triflorum*, often present in moister, deeper woods. Two years ago I noticed lady's bedstraw, *G. verum*, growing profusely in the Oleskiw Woods (between the Ft. Edmonton and Terwilligar footbridges). Earlier this year (2021) I also found a patch of *G. verum* on a trail adjacent to the Epcor E. L. Smith water treatment plant.

On a recent trip to the Northwest of Bruderheim Natural Area I discovered species #4 growing in a dried-out wetland: three-petal bedstraw, *G. trifidum*.

Now, species #5 which still remains a curiosity for me. I observed this species throughout the June - August period, in three different locations in my neighbourhood in the west-end: in the hayfield adjacent to the Oleskiw Woods, on the riverside trail in the same woods and, more frequently, in a small patch in the top-of-the bank woods near Wakina Drive.

I've submitted records of these observations to iNaturalist and correspondence on this medium suggests that I'm dealing with *Galium mollugo*, hedge bedstraw; with *G. album*, white bedstraw, being an alternative.

I'm somewhat hesitant to accept this since there is no record of these species in the Alberta Floras (e.g., Kershaw/Allen). So, I'm running this by the readership of the Wildflower News in an attempt to get this "discovery" verified or otherwise explained. Please examine the photos and let the editor know what you think.



Galium boreale, northern bedstraw.
Westridge Trail, August 28, 2021.



Galium triflorum, sweet-scented bedstraw. Lady Flower Gardens,
June 10, 2021.



Galium trifidum, three-petal bedstraw.
Northwest of Bruderheim NA,
August 5, 2021.



Galium verum, lady's bedstraw.
Non-native introduced species.

Left: near Epcor plant,
July 16, 2021.

Right: Oleskiw Woods,
August 18, 2021



Galium mollugo,
hedge bedstraw?

Galium album, white bedstraw?

Top left: Wakina Drive, July 4, 2021; top centre: Wakina Drive, July 4, 2021; top right: Wakina Drive, July 11, 2021.
Bottom left: Wakina Drive, July 11, 2021; bottom right: Oleskiw hayfield, July 17, 2021.

What's Up (to Date) with the Buttercups? By Patsy Cotterill

By September fruits outnumber flowers among the native vegetation, and those of us still trying to hone our plant identification skills may have to turn our attention to some of the late flowering and less showy families such as the Amaranthaceae (particularly the Chenopodiaceae subfamily) and the docks (Polygonaceae) where fruits are important. (A good hand lens or, better still, a dissecting microscope are good for tackling the tiny congested flowering spikes in these families.)

However, a recent query about silverweed (*Potentilla anserina*) reminded me that a few wetland species flower and fruit late into the season, and that people may still be looking for IDs for their summer photographs.

Several of these wetland species belong to the buttercup genus, *Ranunculus*, in the buttercup family, Ranunculaceae. Almost all buttercups can be recognized by their simple, regular, yellow flowers with five sepals and five petals, the latter having a characteristic, distinctive shiny gloss to them. This glossiness is due both to the singular structure of the petals and the pigmentation therein, and is thought both to act as a signal to pollinators and to reflect sunlight onto the reproductive organs, thereby warming them. This feature distinguishes the buttercups at once from the rose family cinquefoils (*Potentilla* species) which have similar open, regular, yellow flowers but whose petals are matte. Both genera (*Ranunculus*, *Potentilla*) are considered relatively primitive because of their simple, separate flower parts, and their numerous stamens and pistils attached to a central receptacle; the multiple pistils produce a head of dry, single-seeded fruits called achenes which in many species are tipped by a distinctive beak.



Flowers of tall buttercup, *Ranunculus acris*, showing the glossy petals, the outer rings of stamens and the central green pistils that will develop into the head of achenes. A nectary is often present at the base of each petal.

Photo: Edmonton back yard, 2016-06-27.

The Ranunculaceae tend to be a moisture-loving bunch, inhabiting water, shores, wet meadows and moist woodlands as well as snow hollows and streams in the mountains, whereas the Potentillas frequent a wider range of habitats, including very dry ones. Only about four local species of *Potentilla* (five if you count former *Potentilla palustris*, now *Comarum palustre*) live in moist habitats, including the aforementioned silverweed.

Taking a look at our locally occurring wetland/marsh buttercup species, let's first get the exceptions out of the way, the two, white-flowered, truly aquatic water-crowfoot species. In *Flora of Alberta* (1983) two species were recognized: *Ranunculus aquatilis* and *R. circinatus*, the latter being the much more common and widespread, the former more confined to the mountains. For a time, only one species was recognized: *R. aquatilis*. Now the two species are once again separate, but have been given new names because the true *aquatilis* is considered to be extirpated from Canada: *R. trichophyllus* (corresponding to the earlier *R. aquatilis*, with the common name thread-leaved water-crowfoot) and *R. longirostris* replacing *R. circinatus* (common name, long-beaked water-crowfoot). Both have very finely dissected, immersed leaves that float freely but in *R. longirostris* they are somewhat more rigid and do not collapse completely when removed from water (a character that can be somewhat difficult to determine without a means of comparison). This species also lacks a free leaf stalk or if one is present it is shorter than the stipule, and has achenes that are more numerous in the head and have longer beaks than the achenes of *R. trichophyllus*. Water-crowfoots often form attractive floating patches on ponds or slow-moving waters and so can be easily recognized as such, but they may also be inaccessible, making it difficult to check their specific features.



L: *Ranunculus*, probably *longirostris*, long-beaked water-crowfoot. Strawberry Creek Natural Area, 2009-07-20.

Above R: Water-crowfoot species showing immersed, finely dissected leaves. Unknown internet photo.

All the remaining *Ranunculus* species in Alberta have yellow flowers.

A semi-aquatic buttercup that can be found variously floating on water (though rooted in the mud bottom like the water-crowfoots) or creeping on the mud is Gmelin's or small yellow buttercup (*Ranunculus gmelinii*). It is easily recognized because although its leaves are deeply lobed or divided into three segments they are almost circular in outline and have that somewhat leathery, waterproof look. Like the water-crowfoots they can form extensive patches in shallow waters or in marshes.



L: Gmelin's buttercup or small yellow buttercup, *Ranunculus gmelinii*. Elk Island National Park. 2015-05-30.

R: Same species on dried bed of wetland at 99 Street NW, Edmonton, 2009-07-03. Note that flowering time can vary greatly within a species, likely dependent upon wetland conditions.

A similarly creeping plant, rooting in the mud from leaf nodes along the horizontal stem, is lesser spearwort, *R. flammula* (which apparently exists in two varieties in Alberta, both of which are rare). It is not to my knowledge found locally.

Two very similar terrestrial species, usually found in marshes or wet spots in woodlands, are Pennsylvania or bristly buttercup (*R. pensylvanicus*) and Macoun's buttercup (*R. macounii*). Both are relatively leafy, hairy, robust plants with leaves divided into three segments which are further lobed. Bristly buttercup has smaller flowers with the petals smaller than the sepals, and the head of achenes is cylindrical-oblong. Macoun's buttercup, the commoner and leafier of the two species, has larger petals (4-6 mm) that more or less equal the sepals and the fruiting head is circular. Unlike bristly buttercup it is capable of rooting at the nodes but does not tend to form patches.



L: Bristly buttercup, *Ranunculus pensylvanicus*.
Edmonton River Valley at Mactaggart Sanctuary,
2015-08-30.

R: Macoun's buttercup, *R. macounii*.
Local garden, 2021-08-25. Photo: Manna
Parseyan.

The rare, Eurasian native, creeping buttercup, *R. repens*, is superficially similar to the last two species but has larger flowers, with petals 6-18 mm long. It spreads readily because of its capacity to root at the nodes. There is a large population of this plant at the new bridge and boardwalk in Whitemud Park South, and its presence there likely has something to do with the ground disturbance that took place during the construction of this infrastructure, this same disturbed muddy ground also giving it the opportunity to expand into large patches.



L. Creeping buttercup,
Ranunculus repens. Burnaby,
B.C., 2010-08-13.

R: Fruits of this non-native
species. Whitemud Park
South, Edmonton,
2020-07-21.

A wetland buttercup that seems to vary in abundance with changing water levels or wetland succession is the celery-leaved buttercup (or cursed crowfoot), *R. sceleratus*. It comes in two varieties, var. *sceleratus*, the celery-leaved, which is non-native, and var. *multifidus*, which does not appear to have a common name but which is native. According to Linda and Lorna's vascular plant keys, the two varieties differ in that the achenes of var. *sceleratus* have fine horizontal wrinkles whereas those of var. *multifidus* are smooth. In addition, the leaves of var. *sceleratus* are lobed or divided into segments edged with round teeth, compared to var. *multifidus* which, as its name suggests, has more deeply divided leaves with deep, rounded teeth or lobes. I haven't been aware that two varieties exist and so I look forward to seeing if I am able to differentiate them. A large population of this species has appeared at Clifford E. Lee Nature Sanctuary following last year's flooding and this year's drawdown of the lake. Any guesses as to whether these plants will belong to the native or the weedy variety?



L: Celery-leaved buttercup, *Ranunculus sceleratus*, possibly variety *multifidus*. Clifford E. Lee Nature Sanctuary, 2021-07-11.

R: Seaside-crowfoot, *Halerpestes cymbalaria*, Twin Creeks, Wagner Natural Area, 2013-06-11.

With 21 species of *Ranunculus* in the province it is clear that I have covered only a few, those that occur in wetland habitats of predominantly central Alberta. Two showy buttercups that grow in local prairies, prairie buttercup, *R. rhomboideus*, and heart-leaved buttercup, *R. cardiophyllus*, are well known to us and used in native plantings. Kidney-leaved buttercup (*R. abortivus*) appears commonly along wet trails in woodlands in June. The non-native weed, tall buttercup, *R. acris*, pops up in various locations such as moist trails in Elk Island, occasionally in Bunchberry Meadows and elsewhere, but is much more common farther west. I don't know if this is true now, but in the "old days" in Britain when buttercups (*R. acris* and others) were more common than dandelions, a common kids' game was to pluck a buttercup flower and hold it under a friend's chin. If the yellow reflected on the friend's chin then that person was said to like butter! For the taxonomy-inclined, the mountain *Ranunculi* present more of a challenge because there are several species and some are rare.

Before I leave the subject I should mention two other former members of the *Ranunculus* genus that have now been transferred to other genera. Once in good company as *Ranunculus cymbalaria*, the seaside buttercup is now *Halerpestes cymbalaria*, the lonely single Canadian representative of the genus *Halerpestes*, seaside-buttercup. It is a common wet ground- or mud-hugging, patch-forming buttercup that can be occasionally inundated. It is distinct in having simple leaves edged with blunt teeth. The typical buttercup-type flowers give way to elongate heads of achenes. Another transfer species is *Ranunculus lapponicus*, now *Coptidium lapponicum*, Lapland buttercup. As its name suggests, it is a northern species, and is not common locally. I have found a few leaves from time to time in wet fen forest in Wagner Natural Area but have not been lucky enough to find flowers.

A final note: the buttercups should not be confused with the marsh marigolds, *Caltha* species, another moisture-loving group in the Ranunculaceae, despite the resemblance of common marsh marigold, *Caltha palustris*, to a buttercup on steroids. The three Alberta occupants of the genus also occur in wetlands or wet places, but have simple leaves, flowers that lack petals (coloured sepals performing the same function) and fruits that are follicles, pods that split open to release the multiple seeds. Common marsh marigold never ceases to delight at Wagner Natural Area as spring gets under way, while the much less common, white-flowered floating marsh marigold, *Caltha natans*, can sometimes be seen in shallow waters, for example, in the river valley or in Elk Island National Park. Marsh marigold sepals, despite their golden brilliance, lack the gloss of buttercup petals.



R: Common marsh marigold, *Caltha palustris*, Elk Island National Park, 2013-05-28. Photo: Patrick Kyle.

L: Floating marsh marigold, *Caltha natans*. Elk Island National Park, 2018-05-26.

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All photos by Patsy Cotterill unless otherwise indicated.

Websites of the Month:

Plant Watch

An article from Nature Watch on Star-flowered Solomon's seal, *Maianthemum stellatum*, for the garden.

<https://www.naturewatch.ca/plantwatch/star-flowered-solomons-seal/>

Alberta Wetland Classification System Field Guide Project

Translating the Alberta Wetland Classification System into a plain-language field resource for land managers and wetland practitioners: <https://boreal.ducks.ca/alberta-wetland-classification-system-field-guide/>

Something a Little Different:

Alberta Wildlife Association -

Another Report to Consider When You Write the Alberta Coal Policy Committee, AWA Newsletter, August 8, 2021.

There is a wealth of informed commentary on the Coal Policy Committee's website that recommends slamming the door on the coal industry. Virtually none of it has received attention in the mainstream media.

Five retired Fish and Wildlife biologists recently provided their submission to the Coal Policy Committee based on their nearly 50 years of experience dealing with coal development in the Eastern Slopes ("[Insights on Coal Development from Five Retired Fish and Wildlife Biologists](#)").

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.

Lifetime ENPS Membership

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Cherry Dodd, editor
Judith Golub, publisher
www.edmontonnativeplantgroup.org



A selection of photos from Fort Saskatchewan Prairie, August 28, 2021: *Oenothera nuttallii* (white evening-primrose); *Heterotheca villosa* (golden-aster or hairy golden-aster); *Agastache foeniculum* (blue giant hyssop); and native bee on *Solidago nemoralis* (grey-stemmed goldenrod). Photos: Patrick Kyle.