Edmonton Native Plant Society

WILDFLOWER NEWS

'Growing Nature's Garden'

OCTOBER 2022

From your editor:

Welcome to the Wildflower News for October. Thanks to the lovely weather we've still time to do more seed collecting and we've an article to tell you how to collect and save your seeds.
Some native bees still hovering around my late-blooming natives. Don't forget to leave some dried stalks and brush piles for them to over-winter!

In This Issue:

Liatrus ligulistylis, meadow blazingstar, in seed. Fort Saskatchewan Prairie. Photo by ENPS volunteer.

EVENTS: ***If you have any events involving native plants that you would like posted, please email us at engedmonton@gmail.com***

Sunday, October 16, *Open House for Wagner Natural Area Society.* Come hear our Guest Speaker, noted Edmonton naturalist, John Acorn, *'The Nature Nut'* . View many displays highlighting activities over the years. Come and mingle with members and volunteers – Friends of the Fen. Help us celebrate 40 years with light refreshments, a children's table and door prizes.
Time: 2:00 - 4:00 pm
Location: The Pioneer Centre, 301 Jespersen Ave, Spruce Grove

If you plan to attend, please RSVP to *info@wagnerfen.ca* before October 6.

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

ENPS Plant Sale and Activity Report

September 17 **-** ***Prince Charles Community Day*** by Lise Gamache, Director At Large, Prince Charles Community League.
Thank you Patsy and Mary-Jo from ENPS for your participation in Prince Charles' Community Day event this past Saturday Sept. 17/22. It was very much appreciated.
From what I saw from my vantage point, every time I looked your way, I always saw people at your tables which was wonderful to see and, to me, was reinforcement that those in attendance took advantage of the variety of components that our event offered. Overall, it was a tremendous turnout and I can't thank you enough for volunteering your time and being a part of our event.

Share Your Thoughts on the National Urban Park Initiative

The City of Edmonton is currently in discussion with Parks Canada, the Confederacy of Treaty Six First Nations, the Métis Nation of Alberta, and the Government of Alberta about the potential for establishing a National Urban Park in the Edmonton area.
Share your feedback!
Complete the online survey before *October 10* to share what is important to you about a National Urban Park in the Edmonton area.
Visit engaged.edmonton.ca/NationalUrbanPark to share your ideas or visit edmonton.ca/nationalurbanpark to learn more about the National Urban Park Initiative.

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Fall Seed Collecting, Cleaning and Storage by Cherry Dodd

Seeds can be collected from late spring onwards depending on the species, but fall is the main seed-collecting time.
Seed collecting is easy, once you follow the main rules.
These are:

1) Wait for the seed head to become brown and dry before collecting the seeds.
2) Fluffy seeds are ready for collection when they detach easily.
3) Always use paper bags or envelopes when collecting.
4) Leave the seeds loose in the paper bag for 6 weeks before storing them. This allows time for the seeds to cure and finish drying.

Even when it looks like all the seeds have gone, there are always a few seeds left and just a few seeds will give you plenty of plants in the spring.
So let's start with the easiest seeds - the fluffy seeds.

Fluffy seeds

Purple-stemmed aster, *Symphyotrichum puniceum*

Fluffy seeds are typically round white balls of fluff and they are very easy to collect. Take a pinch of fluff and pull gently. If the fluff pulls away from the seed head it is ready. Pop it into a paper envelope or a paper bag if you are collecting a lot. Label the bag well with the name and year or you will end up with a bunch of mystery seeds. Although most fluffy seed heads are white a lot of species have different coloured seed heads. For instance, Arctic aster's seed head is a lovely tan colour with a touch of pink. Meadow blazing star's seed head is again quite different. It is larger and not so fluffy looking. This is because bits of the old dried flower stay on the seed head and interfere with the fluffy look. Fluffy seeds will need to be stored in a paper bag for six weeks before final storage so they can dry properly. You do not need to take the fluff off. Storing the seed in paper is important as the seeds still have to dry some more, and they might go mouldy in a plastic bag. You can fold the top of the bag. It doesn't have to be open. I usually leave the bag outside with the top open, in a secure bucket for an hour after collection. Tiny spiders are often accidentally collected along with the seeds. The open bag policy allows these hitchhikers to leave.

Pockets and Capsules

Some seed heads, such as giant hyssop, have tiny pockets where the seeds are hidden. The pockets open at the top quite early and you can see the black seeds inside. But how do you tell if the seeds are really ready? Usually, with most pocket species, it is when the seed head is brown and dry. However, Giant hyssop likes to surprise us. The seed heads often keep a lovely blue or pink colour, or

Giant hyssop, *Agastache foeniculum*

even stay green when the seeds are ready. So here is how you can tell if pocket seeds are ready when it is hard to tell from the seed head itself. Hold out your hand, palm up, and with your other hand bend the seed head over your waiting hand. If tiny specks fall onto your hand the seeds are ready. Collect the seeds by cutting the whole seed head and placing it in a paper bag.

Wild bergamot is another flower where the seed heads have tiny pockets and it is difficult to figure out when the seed head is ready to release its seeds. So with this flower, and any with similar seed heads, do the same hand test. Bend the stem and see if seeds fall out. Cut the whole seed head and put it into a paper bag to finish drying. All seed heads should be stored in paper bags or envelopes for six weeks before cleaning and final storage.

To clean this type of seed, put the seed head in a clean jar or tin with a secure lid and shake up and down for a minute or two. The seeds will be shaken loose and will fall to the bottom of the container. Lift the seed heads out and compost them, and then pour the seeds into an envelope.

Blanketflower, *Gaillardia aristata*

Gaillardia or Blanketflower – What a showy flower! Gaillardia seed heads are in a category of their own. They look like they are going to be fluffy - the seed head is a small white ball when it is ready for harvest, but these seeds are spiky and feel a bit prickly to the touch. Gaillardia seeds are tricky. Sometimes they will detach and sit on top of the seed head while the remains of the flower are still present and before the seed head reaches the round spiky white ball stage. However they are ready and can be collected at this time.You can tell they are ready because they are already separating from the seed head. You can see this process in the photo on the left. Cut off the whole seed head and store it in a paper bag.

The seeds of Nodding onion are held in little pockets which open wide at the top. When you can see the large black seeds, they are ready to collect, even though they don't fall out. Just cut the whole seed head and pop it in a paper bag. The best way to clean Nodding onion seeds is to roll them with a rolling pin. It won't hurt the seeds if you are gentle.

Rhombic-leaved sunflowers and common tall sunflowers. The seed heads are completely different from garden sunflowers. They are a closed pocket with the remains of the flower covering the top. So it's hard to tell when the seeds are ready. Look for a brown seed head. Often the top of the stem is beginning to brown and dry too. Then pick off the debris covering the top of the seed head, and do the hand test. Bend the stem over your hand and see if the seeds fall out. In this case you might have to give the seed head a little shake. Another way to collect the seeds is to wait until the seed head is bare and open. Most of the seeds will be gone, but there will be enough to collect. Cut the whole seed head, and pop it into a paper bag for six weeks.

Seeds in Capsules

Penstemons, such as Slender blue beardtongue, and Lilac-flowered beardtongue, have masses of tiny capsules attached to the flower stem. When the seed heads are brown and dry and the capsules have a tiny opening at the top of each one, they are ready for harvest. The seeds are so fine that they look like dust. Make sure your paper bag is taped along any cracks so the seeds don't escape. I like to use the liquor store wine bottle bags for fine seeds.

Harebells are the same. The tiny capsules are brown and dry and have small holes around the top for the seeds to be released. These seeds are also as fine as dust. When Wild blue flax seed heads are ready for harvest, the capsules are a light beige and dry and open, exposing the seeds. The seed heads do not all mature at the same time. On one flower stem there will be buds, flowers, young green pods, older green pods, closed beige pods and open beige pods. So collecting means being picky and choosing just the right ones. To free the seeds when it comes time to clean them, use a rolling pin to flatten the capsules and release the seeds.

Plants with Pods

Low milkweed, *Asclepias ovalifolia*

I love pods. They are so easy to see. All violets such as Early blue violet and Canada violet have pods. However, there is a trick to collecting any violet seeds. They have to be cut and bagged while they are still green, because once they open the seeds are shot out of the seed head very quickly, and in a couple of hours only the empty pod is left. So how do you tell which green pods are about to open? It's easy. Pods that are pointing straight up are ready to open, even if they are still green. Just collect the upright pods each day, put them in a paper bag, and close the bag. In a couple of hours you will here a strange noise. A snap, crackle, pop as the seeds are shot out. This process leaves you with clean seeds and empty pods, and it is easy to separate the two.

Low milkweed. The pods are the most spectacular part of this flower. The pods are small at first, but soon grow quite large. When the seeds are ready, the pods open and a mass of iridescent white fluff emerges and sails away. Each tuft of fluff carries a large seed. The seeds are very easy to collect, you can cut the whole pod as soon as it splits open, but before the seeds emerge. However put them into a large paper bag. The seeds are so buoyant that they will float right out of the bag again with the slightest breeze. Clean these seeds outside so you don't end up with fluff all over your house. These are the only fluffy seeds where

I take off the fluff. It makes them a lot easier to handle.

Fireweed is another species that has pods that contain fluffy seeds. When the long, narrow pods are closed the seeds are not ready. Once the pod opens it is easy to pick off the seeds as they sit exposed to the air for a while before drifting away. Put them in a deep bag as they tend to float out of a small bag every time it is opened. Fireweed seeds are hard to grow, and the plant does not usually self-seed, so don't worry about all the fluff filling the air and heading over to your neighbours. Golden bean is also called Buffalo bean because it flowers in the spring at the same time that the bison used to return from their winter grounds. The pods are large and easy to spot. They look a little bit like regular dried bean pods. They can be collected once they are a beige colour and dry.To clean them, just split the pods open and take out the small, shiny, kidney shaped seeds.

Naked seeds

Heart-leaved alexanders, *Zizia aptera*

These are seeds that don't have a protective pocket, capsule, or pod. Tall meadowrue and veiny meadowrue are good examples. The seeds sit in little clusters at the end of the stems that once held the flowers, and they break off very easily once they are ready for collection. Heart-leaved alexanders are another good example of un-winged seeds.

So, to recap:

Seeds are ready when they detach easily from the seed head, or fall out of the pocket or capsule holding them, or in the case of Nodding onion, they can be easily seen. Always collect them in paper bags, not plastic. Store in the paper bags in a cool place for six weeks to allow the seeds to cure and finish drying.

Cleaning - Most fluffy seeds do not need cleaning. You don't have to take off the fluff. Pocket seeds and capsule seeds can be shaken in a tin or jar to shake them loose. Un-winged seeds do not need to be cleaned. However nodding onion and wild blue flax need to be crushed with a rolling pin to release the seeds, or the seeds need to be peeled out of their seed heads.

Long term storage - Once the seeds are dried and cured they can be stored in envelopes, bags, or pill bottles. Your choice. They should be stored away from sunlight in a cool place such as a basement shelf or cold storage room. You can also put them in the freezer in freezer bags. Native seeds keep for a long time, five or even ten years.

Grasses Part 9. Grasses of Saline Areas by Patsy Cotterill; photos by the author unless otherwise indicated.

All of the following grasses were found on the shores of Miquelon or South Cooking Lakes this summer.

Nuttall's alkaligrass, Nuttall's salt-meadow grass, *Puccinellia nuttalliana*

This perennial, summer-flowering grass is tufted but nevertheless can form dense, extensive swards along the shores of shallow lakes that leave saline deposits as the water recedes during summer droughts. The grass grows 30-50 cm tall and has narrow inrolled leaves and wide-spreading, branched, diffuse panicles 10-20 cm long with a pyramidal shape. The branches are ascending to wide-spreading and are beaded with small, slender, short-stalked spikelets. These are narrow, cylindrical and about 5 mm long, consisting of typically five florets above the tiny glumes, the first glume about 1 mm long and the second about 1.8 mm. The lemmas are ca. 2 mm long, grey-greenish, with indistinct nerves, and a slightly ragged, papery tip. At maturity, the spikelets break up easily above the glumes and between the florets. By late August most plants are straw-like and forming airy masses along shores.

L. Nuttall's alkaligrass on the shore of Miquelon Lake, 2022.08.07

R. Diffuse panicles of Nuttall's alkaligrass at South Cooking Lake, 2022.08.23

Nuttall's alkaligrass has a close relative, spreading or **European alkaligrass**, *Puccinellia distans*, which can co-occur with *P. nuttalliana* along shores, but true to its non-native nature (it is a circumboreal species but likely introduced to Canada) it favours more anthropogenic habitats, such as roadside puddles (where road salting has occurred), gravel pits, shallow ditches and other disturbed, somewhat saline areas. It is a more compact-tufted, shorter plant than P. *nuttalliana* with flat, broader leaf blades (2-4 mm) and a more obvious bluish or purplish hue to the panicle. The lower panicle branches eventually become deflexed. Other differences include rounded glumes (versus keeled in *P. nuttalliana*), the ovate lemmas slightly smaller at 1.5-2 mm, and with a rounded or cut-off tip, and smaller (less than 1 mm long) anthers. The common name "spreading" does not appear to be apt, as this species does not form the extensive airy biomass of Nuttall's alkaligrass.

L. Panicle of Nuttall's alkaligrass. (Minnesota Wildflowers online image)

R. *Puccinellia distans.* European alkaligrass on the shore of Whitemud Creek, 2009.08.07

Both species are widely distributed in North America, with *P. nuttalliana* most common across Canada and in the west and central U.S. Interestingly, of the five species of *Puccinellia i*ncluded in the (1983) *Flora of Alberta*, only two remain. One species (*P. cusickii*) is now included in *P. nuttalliana* and *P. hauptiana* is not considered distinct from *P. distans*. (Sometimes taxonomic changes do make life simpler!) The fifth species, a puzzling taxon once also considered to be a *Glyceria*, *P. pauciflora*, has now been transferred to a different genus altogether, *Torreyochloa*.

Puccinellia maritima is a major saltmarsh grass of Europe. It has been introduced to Quebec and some Maritime provinces, as well as Greenland and some northeast coastal American states. Tolerance to high pH is the hallmark of the genus.

Common reed, *Phragmites australis*

American reed, *Phragmites australis* subsp. *americanus*
European reed, *Phragmites australis* subsp. *australis*

Patch of American reed on the lower shore of South Cooking Lake, 2022.08.23

Single stem from same patch showing red stem internodes indicative of the native subspecies, *americanus*

This grass comes in two subspecies, native (American reed, subsp. *americanus*) and non-native (European reed, subsp. *australis)* and distinguishing between them is important. According to the Canadensys Vascan database European reed is "doubtfully" present in Alberta, but because it exists in B.C. and provinces to the east it is worth being on the lookout for.

The species is a strikingly tall (1.5-3 m or more) perennial grass of wetlands, with large purplish panicles that form erect or slightly nodding plumes, deep purple when young, becoming straw-coloured as the grains mature and the silky white hairs that aid seed dispersal become prominent. The plants often form large patches by means of both rhizomes (underground stems) and stolons (above ground, horizontal stems). The leaves occur all along the stem and have blades over 1 cm wide. The leaf sheaths do not completely cover the stems but expose the upper segments of stem between two leaf sheath junctions (internodes) which are smooth and conspicuously reddish. The panicles are 10-40 cm long with filiform ascending branches bearing the stalked spikelets. These are large at 1.5 cm long, with long, silky white hairs attached to their axes; their three to several, narrow florets bear similar hairs towards the base. The lower glume is one-veined and about 4.8 mm long, the upper

three-veined and longer at about 5.5 mm; the lower lemmas are about 1.5 cm long (as long as the spikelet and hairs), narrow, folded, and drawn out to a narrow point, and a darker brown than the glumes. The large purplish anthers are 1.8-2 mm long.

Because European weed is common in the Maritimes, Quebec and Ontario, and is a threat to native biodiversity (both plants and animals), much research has been undertaken since the 1990s to distinguish it from the native subspecies and to track its spread. It is expected to become abundant in the western provinces in the future and could become an agricultural menace in Alberta's irrigation districts. American reed can be distinguished by its red or red-purple lower stems, which are green in European reed, and by its longer glumes (over 4.4 mm long versus 2.8-4.4 mm in European reed), although there is some overlap. Although European reed has likely been in North America since the late 1700s, introduced accidentally with ship's ballast, its rapid spread in Canada during the 20th century is attributed to road development, with rhizome fragments being transported by ditching equipment. Waterfowl also spread rhizome fragments and seed dispersal is effected by wind. Non-native *Phragmites* can grow in a variety of wetland soils of differing pH and it modifies the local environment to suit itself. Interestingly, it is not nearly as invasive in its native lands in Europe, possibly in part because it is often grazed by cattle there. Ironically, spread may also be facilitated by the "no net loss" wetland policy in North America, whereby wetlands that have been lost to development have to be replaced by new wetlands elsewhere. These anthropogenic wetlands are particularly vulnerable to invasion by the weedy European reed. Various methods of control are being explored in both the US and Canada.

The situation is similar to that of reed canarygrass in which native and non-native varieties occur, except that in the case of this species the latter is by far the more prevalent in Alberta. I have found American reed on shores at Moose Lake Provincial Park, of lakes in Cooking Lake-Blackfoot Reserve, South Cooking Lake (which is particularly saline), and Clifford E. Lee Nature Sanctuary, and I am reasonably confident that all populations were native.

L. Close-up of head of American reed, South Cooking Lake, 2022.08.23

R. Close-up of spikelets of American reed, South Cooking Lake, 2022.08.23

Foxtail barley, squirreltail barley, *Hordeum jubatum*

Foxtail barley is a native, tufted, perennial grass with stems that are erect or bent to one side, reaching 30-100 cm tall. It has flat leaf blades and an inflorescence consisting of a nodding, dense spike that appears bristly due to the long awns on all the flower parts. The heads are an attractive green or pale purple, becoming straw-coloured at maturity when they start to break up. There are three spikelets at each node of the spike, the two lateral ones on short stalks and consisting only of 1-3 awns. The central, fertile spikelet lacks a stalk and contains a single floret. The glumes of this floret are narrow and rigid and vary from short (ca. 3.5 cm) to 9 cm long, and extend into long awns; the lemma is 5-7 mm long with an awn as long as the glumes. The elliptical grains also bear long (ca. 7 cm) awns.

This grass is common and familiar on open waste ground and roadsides in urban situations, especially where roads have been salt-treated. However, since it favours soils with a high pH (alkaline) it is particularly abundant around saline lakes, colonizing shorelines aggressively as the water line recedes. Easily recognized, foxtail barley is an ornamental grass to some and a weed to others. Ranchers, for example, particularly dislike it as the awns, equipped with minute barbs, are injurious to cattle's mouths.

Two subspecies are distinguished. Subspecies x*intermedium* occurs from BC to Ontario and has shorter glumes and lemma awns than the typical subspecies, subsp. *jubatum*, which is widespread across Canada (introduced in Labrador) and the U.S. (except the southeast). Foxtail barley has an interesting pedigree: it is a hybrid of polyploid origin, from natural crossing of a Siberian *Hordeum* species with an extinct relative of the meadow foxtail, *Hordeum brachyantherum*, that grows in California. If you come across a grass that looks a bit different, rather like skinny-spiked foxtail barley or a long-awned wheatgrass, you may have encountered the hybrid, Macoun's wildrye, *xElyhordeum macounii*, a cross between slender wildrye, *Elymus trachycaulus*, and *Hordeum jubatum*.

L. Younger and older spikes of foxtail barley at South Cooking Lake, 2022.08.23

R. Foxtail barley tufts approaching maturity at South Cooking Lake, 2022.08.23

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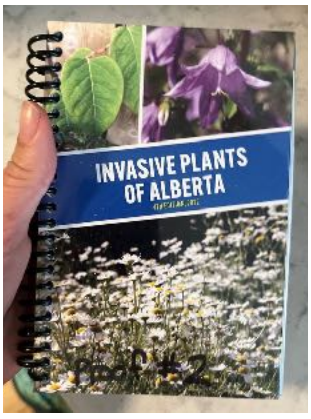
Something Different:



Revised version of the Invasive Plants of Alberta Identification Guide

This Invasive Plants of Alberta guide is a field-friendly tool to assist with weed identification through plant descriptions, habitat, and management for the 75 provincially regulated invasive plant species that are listed on the Alberta Weed Control Act, as well as select others that are currently unregulated but may require special management.

It can be read here:
https://abinvasives.ca/wp-content/uploads/2022/05/Weed-Guide-2022-web.pdf

October 18, 2022 - 7:00 pm - Prairie Conservation Forum State of the Prairie: A Mapping Perspective

AWA will be hosting a talk by Livio Fent on the interactive “State of the Prairie” map he has created for the Prairie Conservation Forum (PCF) website. Using the website, Livio will review the functionality features of the mapping function and show how the data can be visualized with the application.
The talk begins at 7:00 pm and we expect it to last roughly 1 hour. Registrants will be sent a link to the Zoom event for the presentation.
To register: https://albertawilderness.ca/product/awa-talk-pcf-state-of-the-prairie-a-mapping-perspective-with-livio-fent/

The Buzz About Native Bees - This article is from the Alberta Wilderness Association published in March 2020, but still a very worthwhile read. Not much has changed in 2 years. Our native bees are still at risk.
https://albertawilderness.ca/the-buzz-about-native-bees/?fbclid=IwAR0SZFIGGGqbkWPMIUtIdxbWxpo9A3YG_8wP-RG9ZvQVBAnYHhubRTPUdFg

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
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.

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

Rain the night before and a heavy dew in the morning = beauty in the plot! Blue lettuce, *Mulgedium pulchellum;* purple prairie-clover, *Dalea purpurea,* filaments bedecked with dew; purple prairie-clover; native bee hones in on the now dry prairie-clover. Photos taken at her Bunchberry Meadows plot, September 2022, by Sue Panteluk.