



WILDFLOWER NEWS

From your editor:

We wish our readers a happy Thanksgiving and a prolonged and colourful fall!

In this issue Cherry completes her diary of a season's native gardening at Bunchberry Meadows and Liz Deleeuw offers her advice, based on many years' experience, of how to deal with the native seeds you have in hand or intend to buy.

For the four winter months, November through February, we plan to produce only two *Wildflower News* issues, one in early December and another in early February. This will allow our small editorial board and communications teams some time to catch up on other activities. If important events come up during this period we will notify our readers with an emailed fact sheet.

We hope you won't forget about us, however! We would appreciate having photos of your winter native gardens for these two issues: hoar frost on plants, snowy seed heads, attractive winter twigs, for example, all contributing to a more interesting landscape than just a snow-covered lawn! And if you'd like to write us about lessons in growing you have learnt this season, please do so! You can send your submissions to: editor@enps.ca



Common tall sunflower (*Helianthus nuttallii*), garden specimen, 2023-08-23. Photo M. Parseyan

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Book Review

Events

Title: Root for Trees - Trees for Health

Date: Thursday, October 5 from 10 am to 2 pm

Location: Tawa Park (east of the Grey Nuns Community Hospital)

Content: Trees provide many mental and physical health benefits for us! In a joint effort, **Trees for Life** and **Root for Trees** are collaborating to plant native species of trees and shrubs in celebration of Edmonton's healthcare workers. Join us for a public tree planting, and activities to show appreciation for both nature and our healthcare workers.

Price: Free. For more information, go to www.edmonton.ca/city_government/initiatives_innovation/root-for-trees-events

Title: Guided Fall Foliage Tours

Date: October 1, 6, 7, 13, 14, 21, 28, 29

Location: Bunchberry Meadows Conservation Area (Range Road 261, Spruce Grove, AB)

Content: Join the **Nature Conservancy of Canada** for a guided tour to witness the dramatic fall colours of Bunchberry Meadow's tamarack stands, and to learn about the diverse features of this conservation area. Home to sand dunes, wetlands, and old-growth forest, Bunchberry Meadows provides a valuable habitat for many species such as moose and jack pine. While you're there, don't forget to check out the ENPS demonstration plots down by the parking lot, and on either side of the road as you first drive into the conservation area.

Price: \$10. Register at www.eventbrite.ca/e/fall-foliage-tours-sept-22-oct-29-2023-tickets-719514205357?aff=oddtcreator



Tamarack (*Larix laricina*), Bunchberry Meadows, 2021-10-07. Photo C. Dodd

Title: Wagner Natural Area Open House

Date: Sunday, October 29 from 2pm to 4pm

Location: Pioneer Centre in Spruce Grove (301 Jespersen Ave, Spruce Grove, AB)

Content: You are invited to visit the many displays highlighting activities of the Wagner Natural Area Society over the years, mingle with our members and volunteers, listen to guest speaker Kelsie Norton (**North Saskatchewan Watershed Alliance**), and celebrate with snacks/refreshments and door prizes. More details can be found at: <http://wagnerfen.ca/events2/>

Price: Free. If you plan to attend, please RSVP to info@wagnerfen.ca before October 20.

Please send compliments, concerns and questions to info@enps.ca

To unsubscribe, or subscribe, email info@enps.ca

Wildflower News editorial board:

Patsy Cotterill, Liz Deleeuw and Susan Neuman

Patsy Cotterill, editor | Susan Neuman, publisher

www.edmontonnativeplantsociety.ca/

News

ENPS Native Plant Seed Sales

Apache Seeds (10136 149 St NW) will carry the ENPS seed packages throughout the 2023-2024 winter (while supplies last). Other local stores will also carry our seeds starting in early March, 2024.

Smith Crossing Bridge Reopens



The new Smith Crossing Pedestrian Bridge opened on September 19, 2023. Located alongside 23rd Avenue, the bridge provides access to the MacTaggart and Larch Sanctuaries within the river valley system in southwest Edmonton. The previous bridge was built in the early 1900s and had reached the end of its service life.



Sales display (of ENPS native plant seed packages) at Apache Seeds, 2023-09-21. Photo M-J. Gurba-Flanagan

Pollinator Garden at Smith Blackburn Homestead Wins Award

The Smith Blackburn Homestead is a 73-acre **Edmonton and Area Land Trust** (EALT) conservation area, located about 60 km east of Edmonton, just past **Elk Island National Park** and within the **Beaver Hills UNESCO Biosphere Reserve**. In 2021, EALT wanted to establish a pollinator garden with the aim of converting an area dominated by invasive plants into a habitat for native wildlife. The **Edmonton Native Plant Society** was approached to provide their expertise in the design and construction of the bed, and also served as a supplier of many of the 250 native plants that were installed in the garden. ENPS board members Cherry Dodd and Liz Deleeuw were on hand on planting day to place the plants into the right areas, before the experienced EALT volunteers did the actual transplanting.

This year, the **Society for Organic Urban Land Care** recognized the pollinator garden under their “Greener Greenspaces” program: “The aim of the program is to showcase examples of ecologically-focused land care as a means to inspire others and to further the movement across Canada.”

The following video contains more information on this pollinator garden: https://m.youtube.com/watch?v=gfJi1oAvX9I&fbclid=IwAR19AQHIF7d2m2Zawi aPCJ3OICm7AGigJDrQbpogqVkiKfTaXjCPaH ow_aem_ATrRvedQBNP7pzqWiHxYvD_8d9euuy8 CzdK_6zMAXJju9swazAhFnnKk2zX0tkua0Gs&mbextid=Zxz2cZ

[v=gfJi1oAvX9I&fbclid=IwAR19AQHIF7d2m2Zawi aPCJ3OICm7AGigJDrQbpogqVkiKfTaXjCPaH ow_aem_ATrRvedQBNP7pzqWiHxYvD_8d9euuy8 CzdK_6zMAXJju9swazAhFnnKk2zX0tkua0Gs&mbextid=Zxz2cZ](https://m.youtube.com/watch?v=gfJi1oAvX9I&fbclid=IwAR19AQHIF7d2m2Zawi aPCJ3OICm7AGigJDrQbpogqVkiKfTaXjCPaH ow_aem_ATrRvedQBNP7pzqWiHxYvD_8d9euuy8 CzdK_6zMAXJju9swazAhFnnKk2zX0tkua0Gs&mbextid=Zxz2cZ)



Pollinator garden at Smith Blackburn Homestead.

Advocacy

Trails and Tribulations

Text and photos by Patsy Cotterill

Trails are essential for human access and travel – this fact was impressed upon me once again this summer when I visited a few isolated, provincial Natural Areas in Alberta’s vast countryside. Animals make trails too, for example, deer, moose, snowshoe hares and small rodents, in order to move between home and foraging grounds. Unfortunately, trails, especially human ones, are a type of disturbance and create more problems for the environment than benefits, particularly when there are too many of them.

Edmonton’s river valley is riddled with a network of trails that are “natural surface” offshoots of the main, city-built asphalt trails and they have increased phenomenally in number in recent years. This is due, partly, to the rise in mountain biking as a sport and partly to a general upsurge in popular usage, in turn exacerbated by Covid. Hikers, mountain bikers (who shun the flat asphalt paths as not conducive to the thrills provided by steep slopes and knotted tree roots), tobogganers, people seeking viewpoints of the river and creeks, and dogs, all use these trails. The environmental consequences include loss of vegetation (also due to the creation of wind tunnels and wind throw), compaction of soil and its opposite, erosion,

littering and pollution, disruption of wildlife behaviour, and an increase in weeds.

I must admit that I enjoy getting off the main trails and into the forest myself, and my sense of guilt is not enough to stop me. A recent walk along a stretch of river escarpment in Rio Terrace served to remind me how much trails and associated disturbed green spaces are agents of the spread of

invasive weeds. The trail down from the residential area onto the escarpment is clogged with up-tripping alfalfa, which had an excellent year last year, and smooth brome grass. A green patch of European lily-of-the-valley, *Convallaria majalis*, drew my attention (possibly the result of someone throwing out garden refuse). (A natural ground cover would have been star-flowered false Solomon’s seal.) Some of the undulating trail through steep, wooded escarpment is mostly natural, until it joins a newly cut trail through exposed clay running along the top of the escarpment (not negotiable after rain or heavy snow). Here perennial sow-thistle and goatsbeard form conspicuous rosettes, along with a newcomer, an extensive patch of creeping bellflower.

This trail does, however, feature a patch of a rare grass, green muhly (*Muhlenbergia racemosa*), which occurs sporadically, mostly on clay slopes in the river valley and

ravines. In the interests of accuracy, it must be admitted that the openings created by trails, especially those with low banks, provide habitat



The green area surrounding the natural surface path (probably created by game, but later much used by humans and dogs) in the river valley near Rio Terrace consists of non-native smooth brome and alfalfa, and contrasts with the native aspen and shrubbery on the escarpment above. Non-natives along paths may not be a big deal, but if they penetrate the surrounding “bush” they will replace native vegetation, and the greater the number of trails the greater will be that loss and the corresponding increase in weeds. 2023-09-27.



View of the river valley showing another user-generated trail high on the escarpment. In the left foreground is the rare grass, green muhly, with dead stems. In the middle at the left is a clump of goatsbeard (*Tragopogon dubious*) with seed heads. The yellow "bush" above it is another non-native, garden asparagus. 2023-09-27.



Even when a perfectly adequate trail exists people can't resist creating a short cut. In this case no native vegetation was lost, just aesthetic appeal. 2023-09-27.

that some species require. (For example, the rare sedge *Carex eburnea* occurs along the raised edge of the riverside trail between Fort Edmonton footbridge and Terwillegar footbridge.)

Soon after dropping down onto the back (non-river) side of the escarpment, I enter a large thicket of *Caragana*. Where the bushes are densely set there is no understory (meaning it has completely monopolized that area of escarpment) but where there are openings smooth brome forms green patches, and in the moister depressions green, flowerless Canada thistle sprawls luxuriantly. On the open slope stretching down to the ravine, after many years now of walkers, runners, tobogganers and off-leash dogs dissecting it by trails, thistle is blowing white seed and sturdy clumps of tansy are still in flower. The City of Edmonton does nothing (or apparently nothing) to control these regulated (Noxious) weeds in the river valley, which must be the world's best example of a hybrid ecosystem (a mixture of native and non-native species). I have also passed a lot of woody invasives on my walk: seedlings and saplings of European mountain-ash, Manitoba maple, bur oak, Siberian elm, and bushes of cotoneaster, but these are not particularly associated with trails.

If I were to proceed south I'd reach the Wolf Willow Creek bridge and the opening to the new bike path along the escarpment. This features great stretches of poison-ivy (native, admittedly, but whose appearance likely coincided with the trail). Sticking instead to the parallel (legitimate) asphalt trail to the Fort Edmonton footbridge one can spot the vanguard of burnet saxifrage, a European, caraway-like flower that forms extensive ground cover in the open field and the riverine woods of Oleskiw River Valley Park as well as along its trails.



Slope above the ravine showing Canada thistle and tansy. The yellow patches on the upper slope are garden asparagus. 2023-09-27.

One wonders what the creation of a National Urban Park will do if it comes to Edmonton. Will it provide funds to heal trails and control weeds, or will it just finance more trails and give people access to the wilder spots of the river valley?

Articles

Playing in the Sand: A Seasonal Diary of Restoration Work at Bunchberry Meadows - Part II

By Cherry Dodd

Editor's Note: In this second instalment, Cherry resumes her Bunchberry Meadows diary. Her story indicates the hard work involved in creating a native plant garden, but also what fun it is to do so in a nature reserve. I am so envious of her sighting of pocket gophers! I have a soft spot for them; I regard them as free roto-tillers, and the mounds of fine soil they create are perfect for the germination of seeds.

July 4th

It was another wonderful day at Bunchberry. Everything is flowering like crazy right now and there were so many butterflies.

The common tall sunflowers are just beginning to flower and the rhombic-leaved sunflowers are in bud. The white evening-primrose flowers had finished for the day and were a deep pink colour. I spotted a pink evening-primrose moth hiding in the remains of one of the flowers, and realized for the first time why they were pink. Their flower of choice is actually the white evening-primrose, not the yellow evening-primrose.

We went on the meadow walk and Sue found a new population of grape ferns, not far from an original population. We also saw some wonderful Drummond's thistles in bloom.

I was amazed at all the harebells in bloom. It's a great year for them and I will collect seeds.

I am focusing on collecting seeds of the local native flowers at Bunchberry to preserve and grow out the local gene pool. I am also collecting seeds of the native sedges to grow out.

This fall I am going to have another great sunflower give-away. We gave away so many in the spring and now we have wall-to-wall sunflowers again! They have even taken over the main path on

the wetland side. However, the goldfinches will be happy.

New plant - the attractive small plants with large leaves that appeared all around the pond when the water was low are the native northern water-plantain. Most are under water, now that the pond levels are back to normal, but several on the bank are flowering.

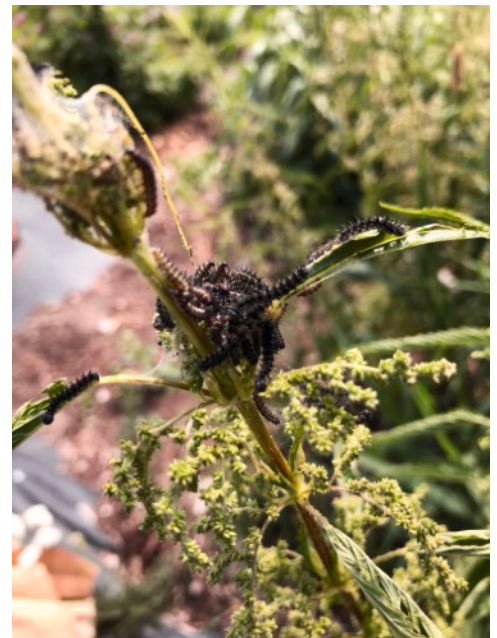
July 23rd

We have some mulch for the wetland side and we will get another load some time this week. This is so important because the wetland side soil contains a lot of peat, and once the top layer dries out rain can't soak in any more and just washes off. This is why the spotted Joe Pye weed is only three feet tall instead of five feet tall. It's not getting enough water. The mulch will fix that problem by providing a permeable top layer.

We have butterflies, and now we have caterpillars - a huge infestation of them on the large patch of stinging nettles by the lunch spot.

According to Google these are Red Admiral caterpillars - lovely to see them. It looks like there are at least a hundred.

The ducks have returned to the pond. There is now a mother mallard and



Red Admiral butterfly larvae on common stinging nettle (*Urtica gracilis*), Bunchberry Meadows, 2023-07-23. Photo C. Dodd

four half-grown ducklings happily doing bottoms-up in the pond. We also have a lovely collection of dragonflies skimming the pond so still no mosquitoes!

The two pink corydalis by the fence on the wetland side are in bloom - such a beautiful flower.

On the prairie side is an interesting grass in flower - Indian ricegrass. It is not common, so I will collect seeds and try to grow them out.

July 31st

We now have a pile of mulch thanks to Liz and Mary-Jo who used their trucks to transport some of the ChipDrop pile from my yard. It was hot but we went slow and took frequent breaks. There are no mosquitoes thanks to the dragonflies.

In other news there is a large flock of goldfinches already feasting on the sunflower seeds. The goldfinches are bright yellow and so beautiful. The Red Admiral caterpillars surprised me last week. They have now spread all over the stinging nettle patch, but they are only eating the flowers! Trudy told me that the butterflies migrate here from B.C. which might be why the caterpillars appear so late in the season.

August 7th

There were far less Red Admiral caterpillars on the stinging nettle patch and lots of lovely, newly minted Red Admiral butterflies flying around. It seems that these caterpillars develop fast!

There were also no goldfinches on the sunflowers. However there are very few seed heads as yet, just hundreds of flowers.

Is it possible to have too many sunflowers?



"Is it possible to have too many sunflowers?" Common tall sunflower (*Helianthus nuttallii*), Bunchberry Meadows, 2023-08-07. Photo C. Dodd

August 14th

Another really hot day.

Margriet mulched the top edge of the wetland side and we dug out some of the hedge nettle that was threatening to smother the blue-eyed grass and transplanted it into the grass close to the pond. It is a rhizomatous native wetland species, so it should be able to compete with the grass there.

David dug some holes

on the wetland side so that water flowing down the steep slope would be collected and would sink in. He also put a log barrier below the patch of false dandelions, to stop water from flowing away from their roots and give them more water. I want to add more log and water breaks in the future.

When we did our walkabout on the prairie side the Indian ricegrass plant was in seed so I was able to take a photo. This is a rare plant and I am hoping to grow out more, because it prefers dry sandy conditions, so it would be perfect for Bunchberry. My fall project is to finish taking out the invasive grass on the borders of the prairie side so I can plant more native grasses.



Indian ricegrass (*Eriocoma hymenoides*), Bunchberry Meadows, 2023-08-14. Photo C. Dodd

August 21st

Pond levels are above normal thanks to all this rain. So great to see! There were some mosquitoes, but not too bad.

It was a wonderful day for planting, with a few days of rain forecast to settle the plants in. So that was my focus, and Margriet and I managed to put in about four trays of plants that had been cluttering up my back yard - only another 12 or so trays to go!

Margriet and I had a surprise as we were leaving.

We were packing up my car and I noticed a small hole by the wetland side fence line that hadn't been there before. A northern pocket gopher had built it while we were working. As I went past it to get more stuff I noticed the hole now had a pile of dirt half way down - there was an active pocket gopher down there! Margriet and I stopped and watched, and sure enough a little nose and some teeth appeared pushing the pile of soil. It was my first sight of a pocket gopher as they normally spend most of their time underground. I stayed still and after a while it poked its head out as it pushed out the soil and then it started to come almost all of the way out to grab a leaf or two. It was in a patch of hedge nettle and seemed to enjoy the leaves as well as the roots!

September 8th

Finally the smoke is clearing.

It's seed collecting time, so there were lots of gaillardia, golden-aster, slender blue beardtongue, blue-eyed grass, spotted Joe Pye weed, pink corydalis and lilac-flowered beardtongue seeds ready for collection. Also some nodding onion and false dandelion.

Sue P. is collecting smooth fleabane and low milkweed from her land as we have very little. The Bunchberry Meadows milkweed patch had a bad

year this year and didn't produce any seeds. I planted low milkweed seedlings from the Bunchberry population on the wetland side this year and I will add more next year. I am working towards building a robust population in the plot as the original patch in the meadow is doing so poorly.



Autumn dwarf-gentian (*Gentianella amarella*) is often a bluish purple but at Bunchberry Meadows there is a population of white ones. 2023-09-12. Photo S. Panteluk

September 12th

We had so much fun today that I didn't get everything done so I am going back tomorrow, Wednesday, to finish.

Sue P. and I went for a walk to collect harebell seeds and northern gentian seeds and also look at the grape ferns. There were a lot of Northern Gentian plants in seed and surprisingly, several plants in bud and about to flower. The interesting thing about this population is that many of the plants have white flowers

instead of the usual blue colour.

There were so many grape ferns I couldn't count them all, and if you brushed one a small cloud of spores floated off. We were trying to figure out how to grow out plants from the spores. Sue found instructions on Google once she returned home, so that might be a project for next spring. Sue has already found some tiny ferns that self-seeded in a neglected pot on her



Leathery grapefern (*Sceptridium multifidum*), Bunchberry Meadows, 2023-07-04. Photo S. Panteluk

property.

There were so many harebell seeds that I spent too long collecting them and when we came back we found Liz talking with a new person. Her name is Alia and she introduced herself as the Nature Conservancy of Canada Ecological Restoration Manager for the whole of Alberta! So I had to show her some of our treasures and rare plants.

September 13th

There is a ground wasp nest in the mulch pile close to our sitting area. Sue P. discovered it, but unfortunately a wasp discovered Sue first and she got stung.

They are normally very docile, but Sue was weeding out giant Russian pigweed plants and disturbed the soil close to their nest. I have put a flag next to the entrance so people don't go too close and disturb them. They haven't bothered us while we have been eating and they are not bothered by people just walking by.

There are still lots of butterflies on the gaillardia on the wetland side, and lots of gaillardia are still in bloom. The lilac-flowered beardtongue nearby has

plenty of seed heads but is also in bloom again. The common tall sunflowers are now dormant, so it is time for the great sunflower giveaway.

Next week Kayleen from Edmonton and Area Land Trust is coming out to take some common tall sunflowers to put in at the Smith Blackburn property.

Sept 18th

What a great day! It was wonderful weather and Kayleen and her helper swiftly dug up a large number of common tall sunflowers. Liz cut off the top growth and distributed the seed heads around the pond so more plants could germinate. She also took some seedlings home to grow out for future projects.

David brought his friend who was visiting from B.C. and they tackled the carpets of yellow evening primrose seedlings. It is amazing how much yellow evening primroses can self-seed.

Sue P. and Susan W. tackled the invasive grass along the perimeter of the prairie side. Now I have a clear space to plant the sun sedges and other dryland sedges waiting to go in.

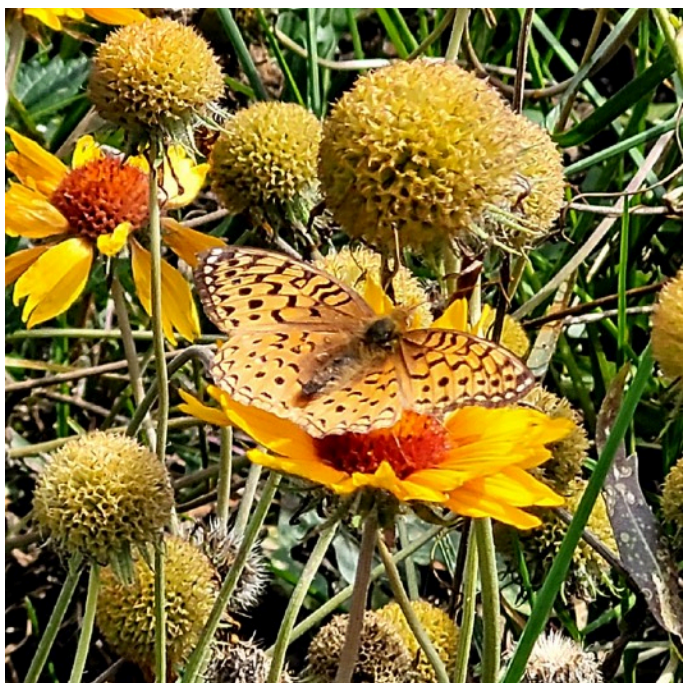
September 25th

Sue P. brought her grandson to help us create a big pit for compost on the prairie side. Now that it is full we have a large amount of compost available on site. This is needed because the sandy subsoil on the prairie side is so poor that some plants are only a third of their true size.

We discovered an interesting grass close to the compost pit. The seed head looked like smooth brome, and the leaf had the distinctive W sign, but the leaves and stem were very hairy. I would love to find out what it is as I have never seen this grass before.

Liz and I were able to plant some grasses on the wetland side and on the prairie side so I am making progress with fall planting. We were lucky that we had great weather.

On the wetland side there is now a wonderful wide strip of bare soil where the common tall sunflowers used to be. Several healthy meadow blazingstar



Fritillary butterfly on blanketflower (*Gaillardia aristata*), Bunchberry Meadows, 23-09-13. Photo C. Dodd

plants were uncovered! We will definitely have another sunflower giveaway in the spring and it will also be time for a Canada anemone giveaway too.

Fall wrap-up

I don't know how much longer we can work this year - it will depend on the weather, but I am hoping to keep going until the end of October.

I want to mulch everywhere before winter and spread leaves again on the prairie side. I still have quite a few plants to put in and quite a few patches of invasive grasses to take out.

Speaking of grass, the sweet grass is magnificent; it seems to like being an understory crop for the sunflowers. There will be plenty to give away to volunteers next spring.

I am so grateful to my wonderful "Bunchberry Bunch" volunteers. I would not have been able to achieve the transformation that has happened so far without their support, encouragement and hard work!

Next year the adventure will continue!

Editor's Note: Bunchberry Meadows Conservation Area is about a 20-minute drive from the west end of Edmonton, down Fleming Road. It has an extensive system of trails, dry toilet facilities, and picnic tables on site. Located in the Devon Sand Dune system, it is worth visiting at any time of the year.
<https://www.ealt.ca/bunchberry-meadows>

PLEASE NOTE: Bunchberry Meadows is currently closed to the general public, but will reopen on October 31, 2023. Guided tours will be available, prior to this date, through the Nature Conservancy of Canada. Please see "Events" above for the link to register for those tours.



Wetland side, Bunchberry Meadows, 2022-08-08.

Photo C. Dodd

Seeds: What's the Story?

Text and photos by Liz Deleeuw

Editor's Note: Fall is the time when ENPS members start cleaning and packaging the seeds that have been collected throughout the season. I was once asked "What is the best time to collect seeds?", the questioner obviously looking for me to name a date, but I said "When they are ripe." This isn't entirely true. The seeds of some species can be taken off the parent plant before they are ripe and they will subsequently ripen. (Beaked hazelnut, for instance; best to collect the nuts before the squirrels get to them!) However, in most instances, collecting when the seed is ripe is the best bet and requires careful observation of the plant's development. Another thing to bear in mind is that many plants, particularly woody but also herbaceous plants, have mast years, years in which they produce abundant seed, but also years in which they produce very little or almost none. This too demands observation and an understanding of the plants' cycles.

For those who don't have time to be plant watchers or seed gatherers, purchase of native plant seeds is the answer. ENPS sells packaged seeds at sales events and in various garden stores. (We are happy to announce that Apache Seeds will be selling our seeds throughout the upcoming winter.) Purchased seeds can be stored at home for spring sowing, or processed earlier in the year, as indicated below.

In the following article, Liz Deleeuw, the ENPS' growing expert, describes what to do with those seeds you have purchased, or have harvested from

your own garden-grown native plants. You can plant them outside in the fall (or even winter), or you can wait until spring is imminent.

If you do decide to wait until spring, to plant outdoors, you should be aware which species require a pre-treatment known as "cold, moist stratification" for germination. This will be indicated on the packet or in the literature. This pre-treatment occurs automatically for seeds that overwinter outdoors in a natural setting, but can be accomplished artificially indoors as well. (Any species which do not need this weeks' long exposure to cold and moisture can be kept dry and sown directly into the ground/pots in the spring.)

Liz notes that in an earlier article she said that simply stratifying in cold (but not moist) conditions was possible, but she was corrected by a reader who said that "stratification", by definition, involves the use of moisture. However, Judith Golub, who was also a grower, found that many species that were thought to require stratification would, in fact, germinate after being stored dry (not wet) in the fridge for a period of time. For long-term (multi-year) storage, the experts recommend that seeds be stored dry in the freezer at -18C.

On the ENPS website, we will publish a list of species we commonly grow that don't need stratification, and we will endeavour to keep it updated according to what we have in stock.

How To Stratify Native Seeds

Many native forbs, sedges, and some grasses, require stratification for germination. Stratification alerts the seed that it is time to germinate, through changes in its conditions. In nature (at least in the Edmonton area), the spring brings gradual thawing of the soil, and the presence of moisture lets the seeds know it is safe to germinate. This typically involves a cold, moist stratification. (A few species,

like blue-eyed grass, are more particular and may need a warm, moist period as well.) Stratification can also be achieved indoors as described below.

Fall Dormant Seeding In Situ

It is possible to sow seeds directly into the garden in the fall. The seeds will naturally be stratified as the spring comes. If you do choose to plant directly into the garden be sure to mark the

planting area well. Also be sure to know what the seedlings will look like, and be ready to protect them from encroaching weeds. This is **not** the method we usually recommend for starting seedlings.

Fall/Winter Dormant Seeding In Pots

Instead of sowing directly into the soil, we recommend that you sow your seeds into pots filled with potting soil or mix in late fall. Alternatively, this sowing in pots can be done as late as February. In either case make sure these outside pots are covered by snow, and are in a spot that will thaw evenly in the spring (hence, out of direct sunlight). You must also make sure the pots are kept moist after the snow is gone. With this method, the seedlings will not have to compete with garden weeds, and can grow in the pot until they are ready to be put into the garden. Many native plants spend the first season developing their root structure so the plants generally do not get that large very quickly. In my experience there is less germination with this method than with the indoor stratification that is described next, but it is worth a try.

Cold, Moist Stratification Indoors

Another method is to sow the seeds after they have first been subject to an artificial cold, moist stratification in the fridge. To accomplish this, start



Combine one part seed with five parts of the sand/peat moss mixture.

with a mixture of equal portions of sand and peat moss. Use five parts of that mixture to approximately one part of seed. Mix the seed in well and place everything in a

baggie, adding just enough water to dampen the mix. Do not over moisten it. (You can use more of the sand/peat moss mix if you would like more spacing between the seedlings when they come up.)

Place the baggie in the fridge for six weeks. At the end of the six weeks (OR if the seeds start sprouting earlier than that), it is time to pot them up. (If only a few have sprouted, pot them up and return the rest to the fridge.) Spread the mixture on top of pots filled with a growing medium (seedling mix) that does NOT contain soil. This helps prevent the seedlings “damping off” (getting a fungal disease that causes the stem and the roots of the seedlings to rot). Cover the seeds lightly (with the growing medium) according to seed size, if necessary. Place the pot where it gets light either from a window or a grow light. Keep it moist, but not wet, until the seeds germinate.



Add just enough water to dampen the mixture.

Some growers run a fan occasionally to create a breeze, which helps to strengthen the stems and prevent rot. I run a fan with a timer.

With this method you will get a pot with a lot of seedlings in it. Once the seedlings are developed they can be “pricked out” into smaller pots to grow on. This simply means carefully separating the individual plants and moving them into their own pot filled with soil or growing medium. The plants can then be grown either inside or outside, if the weather is suitable and the risk of frost is gone.

Tender plants started inside should be “hardened off,” which allows the plant to gradually get used to the outside conditions. This involves putting the plants outside during the day in dappled shade but bringing them in for the colder nights. Gradually move them into more sun and, when night temperatures allow, leave them totally outside for a few days in full sun. When you judge they are robust enough to withstand the transplant, plant them in your chosen location in your garden.

Book Review

And Now For Something Different...

By Patsy Cotterill

**Michael Pollan, *This is Your Mind on Plants*.
New York : Penguin Press, 2021.**

If you have catholic tastes in reading about plants you might want to include “This is Your Mind on Plants” in your winter reading list. In this book, well-known author Michael Pollan, who specializes



Opium poppy, *Papaver somniferum*.

Photo by Dinkum - <https://commons.wikimedia.org/w/index.php?curid=27085845>

in the relationships between plants and humans and is also a gardener, recounts his researches and personal experiences with three drugs (opium, caffeine and mescaline), and the plants that produce them: poppy (*Papaver somniferum*); coffee and tea (*Coffea* species and *Camellia sinensis*); and cacti (peyote cactus, *Lophophora williamsii* and San Pedro cactus, *Trichocereus* species). He leads the reader down fascinating paths into the sociology, politics, history, Indigenous religion/culture, and natural history associated with these plants (did you know that some plants produce

caffeine in their nectar and bees can get addicted?).

Pollan raises the question of why plants, so taxonomically removed from humans, are able to synthesize molecules that have affinities with human neurotransmitters and so have such remarkable effects on the human mind. The main purpose of the bitter alkaloids produced by plants is to deter herbivores, and many of these chemicals are toxic in appreciable quantities. With psychoactive compounds, however, one not entirely satisfactory answer is that humans have somehow directed the plants’ evolution into a mutualistic relationship: humans get pleasure and pain relief from the chemical compounds, and plants get their numbers greatly expanded and dispersed through cultivation by humans.

The third section, on peyote, is particularly interesting in raising topical issues of cultural appropriation and questions about the sustainability of wild harvesting under increased population pressures.

Psychoactive substances can open the “doors of perception”; this book is guaranteed to open the doors of perspective.

For more information:

https://en.wikipedia.org/wiki/Papaver_somniferum:

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



Peyote, *Lophophora williamsii*, the basis of a Native American religion.