

Cross Pollination

Newsletter of the Halton Master Gardeners



April
2021

April Garden To Do List

- ❑ **Insect Friendly Clean up** - Wait until daytime temperatures are 10C+ for 7 consecutive days. Many butterflies and native bees are sleeping in the leaf litter or in plant stems. Shorten stalks of perennials instead of removing them completely. Push or rake leaves to the back of the garden bed so they can decompose naturally & add nutrients to your soil.
- ❑ **Lawn** - Rake leaves or debris, only if walking on the lawn leaves NO footprints. Wait until the lilacs are in bloom to overseed grass.
- ❑ **Lavender** - Use sharp secateurs to prune back dead or overgrown stems to a vigorous bud.
- ❑ **Prune** overgrown vines, & shrubs that DON'T flower in spring as needed. Use clean, sharp tools. Cut back branches to just above another branch or a bud. Remove dead, damaged, diseased wood. **Keep a sharp eye out for cocoons and chrysalises when pruning.**
- ❑ **Dahlia, calla, canna, geraniums** - Pot up dormant geraniums or sprouting tubers now & grow in sunny window. Pot up all tubers from mid April to beginning of May.
- ❑ **Seeds** - Start tender annual flowers & tomatoes indoors for mid to late May planting. Seed peas, spinach, lettuce, beets, radishes directly in the garden as soon as the ground can be worked.
- ❑ **Follow good cultural practices** to reduce disease & pests in susceptible trees & shrubs, e.g. proper sanitation (removing dead leaves/fruit), pruning to allow for air flow.
- ❑ **Apply dormant oil** sprays &/or lime sulphur before bud break and when temperatures permit for control of disease and pests, only as needed, e.g. disease on fruit, scale/mites on ornamentals last season. Follow label directions carefully. Keep in mind that dormant oil sprays will kill ALL overwintering insects, including valuable pollinators and beneficial insects which may keep your garden in balance.
- ❑ **Birds** - Add native berry producing shrubs to your garden from [this list](#)! Provide nesting materials by leaving plant trimmings in garden. Get hummingbird & oriole feeders ready for May arrivals!
- ❑ **Divide** or transplant perennials as growth resumes.
- ❑ **Spring bulbs** - Sprinkle blood meal or chicken manure pellets around emerging tulips to help deter deer and squirrel grazing.



Watch for our native Dog toothed violet blooming soon!



Time to start your tomato seeds indoors if you haven't already done so. This new hybrid variety called "April 1st" is sure to be a winner!

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Nature and Health

Patty King - Halton Master Gardeners



We are gardeners. We garden outdoors most of the time. Being outdoors with nature provides us with benefits not everyone else has. We know this when we step outside to smell the air, put our hands in the soil, rub against the plants in our garden. However, it is only recently that science has stepped forward to champion being outside and provide us with the scientific facts of why this is a good thing.

According to [Psychology Today Oct 2020](#) one third of adults engage in gardening on a regular basis worldwide. This activity “enhances overall life satisfaction, general well-being, cognitive function and community engagement.” Society is full of stresses from overcrowded cities, noise pollution and an increased use of technology that keeps us inside. Add Covid 19 into this with social isolation and the paucity of physical touch and it is easy to understand how depression, anxiety, stress and health problems continue to rise and worsen.

Edward O. Wilson popularized the term Biophilia which means ‘love of life’. Biophilia promotes the idea that as humans we are connected to nature. It is an innate, biologically-driven need to interact with other forms of life such as animals and plants. It is easy for me to imagine human society when we spent most of our time outside learning about the world because there was no other way to do so. Today our increased distance from the natural world has negative effects on our well being and yet how many of us have moments when we long to be out of doors!



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Nature and Health - Continued



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In the 1980's the Japanese turned to forest bathing as an antidote to technological burnout. Forest Bathing is a psychological and physiological exercise called [Shinrin-Yoku](#) that reconnects the individual with nature and additionally protected the country's forests. It is simply to take a walk in the forest without any technology and listen.

The benefits of forest bathing are decreased cortisol levels (stress hormone), decreased blood pressure, heart conditions, skin conditions and asthma. The science behind this involves the nose which is a pathway to the brain. Trees and plants emit the substance called Phytoncide which is known to have antibacterial, stress reducing properties. Geosmin is found in the soil which has antiviral properties, and coniferous trees exude essential oils which help fight atopic diseases when applied to the skin, lower cortisol when inhaled, and reduce symptoms of asthma when inhaled.

We also know that being outdoors changes our brainwaves. Alpha brain waves are emitted when we are in a mental and physical state of relaxation. The Alpha state significantly increases beta-endorphin, norepinephrine and dopamine. What this means is that our state of mental clarity improves and with it the benefits of reduced anxiety, stress, depression, high blood pressure and chronic pain. We also experience increased athletic performance, cerebral blood flow, increased motivation, energy and happiness.



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Research is now learning to understand the impacts of nature on our creativity and attention. The Attention Restoration Theory (ART) argues that voluntary attention is a limited resource and when our cognitive attention wanes we begin to make mistakes. Being in nature reduces the stimulation and the need for our attention as when in busy urban environments and allows us to think more clearly and therefore restores cognitive energy. A recent study in England found that two hours a week is all you need to improve your health and mental health. If we take this as a minimum, then for gardeners like us it is an easy check mark off the list. Science says that being outdoors is the healthy option that anyone can do. **Pass it on!**

Further reading

- [Brain Waves and Their Benefits](#)
- [The Nature Fix](#)
- [Gardening and Mental Health](#)



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Native Bees of Ontario - Mining Bees

by Halton MG Harriette Henry

Miner bees or mining bees fall into the genus *Andrena*, family Andrenidae, one of five families of native bees found in Ontario. There are approximately 74 species of Andrenid bees recorded in eastern Canada. Some of the most common species are: *A. dunningi*, *A. miserabilis*, *A. nasonii*, *A. rufosignata* and *A. vicina*.

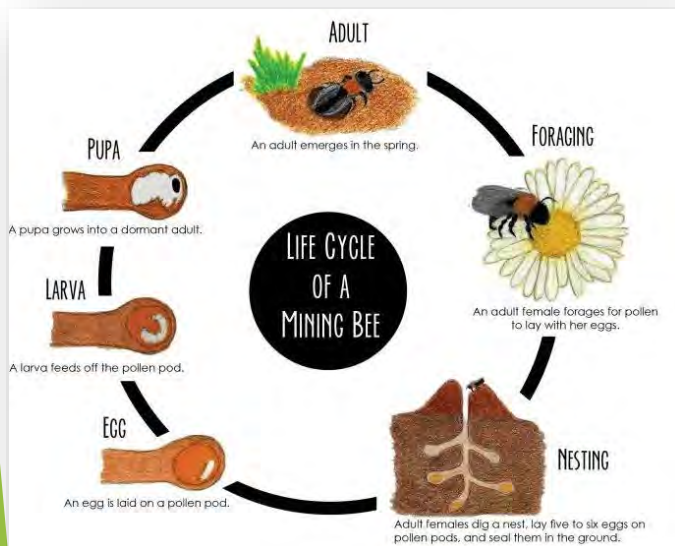
Miner bees are considered to be important pollinators and are called miner bees because they dig tunnels in the ground in which to lay their eggs and raise their young. They seek out areas with exposed soil, having excellent drainage and light shade or dappled sunlight from taller plants. They are also partial to the dense grass of your lawn and they have been found burrowing between stones of old buildings and between logs in cabins or barns.

Most commonly female miner bees dig a tunnel in the soil using loose earth to construct a chimney-like turret, which represents a single nest. Nests are often clustered together in close quarters but females are solitary and only provide for their own nest and future offspring. Miner bees have been known to nest in the same location for many years.

After mating and establishing their nests, the females line the tunnel walls



Mining Bee Nest Observations, Karl Foord,
University of Minnesota



The life cycle of a mining bee, (c)G. M. Cottrill, Scotland's Nature

with a glandular secretion which turns to a solid waxy plate. This process waterproofs a cup-like cell for the provisioning of the eggs. A single egg is laid in each cell and floats on a pollen mixture foraged by the females for about five days before hatching. The larvae proceed to consume the pollen substance and cell lining over the following three weeks. The offspring overwinter in the prepupae stage, and come April, they shed their skin and two weeks later emerge from their burrows as adults.



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Native Bees of Ontario - Mining Bees (continued)

by Halton MG Hariette Henry

The following are some of the more common species of miner bees:



The Dunning's miner bee, *A. dunningi*,
Image: USGSBIML Team

This bee can be identified by the orange brown colour of its body hairs, along with the nearly black hairs located on its hind legs which it uses to carry pollen to its nest. It favours tree flowers and in particular willows, but can also be found foraging on a wide variety of spring blooming woody plants.

The neighbouring or neighbourly miner bee, *Andrena vicina* is one of several mining bees that feed their babies almost entirely the pollen of blueberries. This honey bee sized Andrena uses buzz pollination to shake the pollen out of the pores of the blueberry flower's anther tubes. It gets its common name due to the fact that it tends to nest in our gardens.



The neighborly miner bee, *A. vicina*,
Image: USGSBIML Team



The bumped miner bee, *A. nasonii*,
Image: USGSBIML Team

The bumped miner bee or Nason's andrena is a species of miner bee found in North America and Central America. It is a generalist and collects pollen from many different plants.



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Question of the Month - Bee Friendly Lawn?

Has anyone turned part of their lawn into a bee friendly lawn by planting, clover, selfheal and creeping thyme in with their grass? Jeanette

I'm glad to hear that you are considering lawn alternatives. Many gardeners are making a change away from resource intensive turf grasses and choosing more biodiverse plantings. Selfheal is a low growing groundcover native to Ontario with flowers a similar height to clover. They provide pollen and nectar to native bees and butterflies. Be aware that thyme and 4 clovers (White sweet clover (*Melilotus alba*), Yellow sweet clover (*Melilotus officinalis*), Red clover (*Trifolium pratense*) and White clover (*Trifolium repens*)) are on the invasive plant list as Category 3- Moderately invasive: "Species that do not pose an immediate threat to natural areas but do compete with more desirable native species." They may still be a better alternative to turf grass as they would be more bee friendly. But they are often better for non-native honey bees rather than native bees- not as surprise as they are non-native plants. To support native bees and pollinators consider some of these native groundcovers or sedges. Choose one that matches your growing conditions and zone:

Native Groundcover Alternatives:

- Partridgeberry (*Mitchella repens*) 2"
- Blue Violet (*Viola sororia*) 3-11"
- Wild Ginger (*Asarum canadense*) 4-8"
- Bunchberry Dogwood (*Cornus canadensis*) 4-9"
- Running Strawberry (*Euonymus obovatus*) 6-18"
- Silverweed (*Argentina anserina*) 6-12"
- Field Pussytoes (*Antennaria neglecta*) 7"
- Wild Strawberry (*Fragaria virginiana*) 6-8"
- Barren Strawberry (*Waldsteinia fragarioides*) 7"
- Foamflower (*Tiarella cordifolia*) 10-12"
- Canada Anemone (*Anemone canadensis*) 1-2'
- Prunella vulgaris lanceolate (Lance selfheal)

Native Sedges & Grasses:

- Pennsylvania Sedge - *Carex pensylvanica* 6-12"
- Sideoats Grama (*Bouteloua curtipendula*) 2 ft

Some groundcovers & sedges tolerate a bit of foot traffic, while others do not. Make sure you check if that is important to you.

Want to know more?

- [Credit Valley Conservation Priority Invasive Plant List](#)
- [Native Groundcovers from In Our Nature](#)
- [Sedges from In Our Nature](#)
- [The Little Grass That Could](#) - Laidback Gardener
- [Eco-lawn-the low maintenance lawn](#) - Wildflower Farms
- [Groundcovers and lawn alternatives](#) - City of Guelph

Claudette Sims
Halton Master Gardener



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Carex pensylvanica front "lawn"
Search for images of "sedge lawn" for more stunning photos!
Image: Embassy Landscape



A clover front lawn in east Hamilton
Little watering, no mowing (trim with line trimmer), fixes nitrogen in the soil and offers pollen/nectar for pollinators. Sadly, it's on the invasive list, but so is Kentucky Bluegrass!

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Lunch & Learn with Halton Region Master Gardeners!

Halton Region Master Gardeners

Present our very first Webinar Series

A Fresh Look at Gardening!

Whether your garden is well established or still in your imagination, this “Lunch & Learn” series will help you create a beautiful refuge!

*All webinars are on Fridays from
Noon – 1:00 p.m.*

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- April 16th - A Fresh Look at Gardening!
- April 23rd - Re-imagining the Home Landscape!
- April 30th - Starting from Scratch: New Gardens Big or Small
- May 7th - Garden Facelift - Do the Renew!
- May 14th - Beneficial Insects- Managing Pests in an Eco-friendly Way!
- May 21st - Your Nature Friendly Garden Throughout the Year!



**Registration begins APRIL 6TH
on our website:**

Halton Master Gardeners LUNCH & LEARN!



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“What’s Growing On”

Halton Master Gardener Meetings continue to be held **virtually** until further notice and we are still accepting new members! Our next meeting will be Wednesday, April 7th. Interested? Email us! We are still answering your garden questions, so send us an email! It’s what we do best! HaltonMasterGardeners@Gmail.com



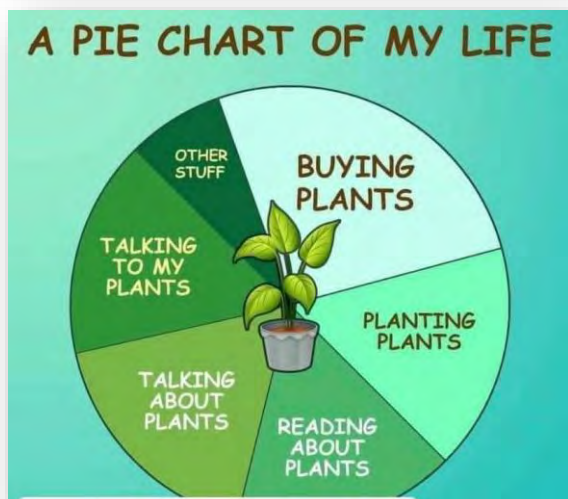
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Updated Map of Nurseries in Ontario

We are constantly updating our [map of nurseries in Ontario](#) so you can find the plants you need



Look for the green stars which indicate nurseries that specialize in native plants.



Images right/above:
Gardening Humour FB

