

Cross Pollination

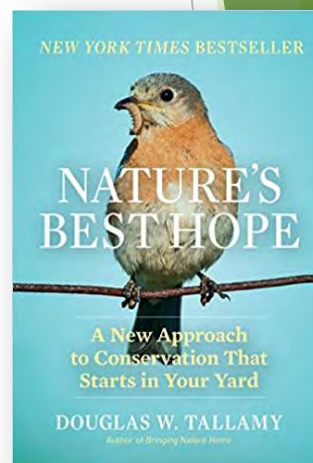
Newsletter of the Halton Master Gardeners



February
2021

February 'Garden To Do' List

- ❑ **Amaryllis** - Cut off spent flower stems & place in a sunny window allowing leaves to grow; water only when the soil is nearly dry. Fertilize with a dilute organic fertilizer about once a month.
- ❑ **Houseplants** - Consult our [December newsletter](#) 'to do list' for detailed information on houseplant care & dealing with pests. Watch for [mealy bugs](#)!
- ❑ **Orchids** - Trigger phalaenopsis orchid reblooming by providing a drop in temperature (17-18C for 2-4 weeks) & extra light. This [Miss Orchid Girl video](#) will show you how.
- ❑ **Seed Starting** - Read all about seed starting in our [February 2019 newsletter](#). See our list of virtual Seedy Saturday events on page 9 of this newsletter.
- ❑ **Planting Dates** - Use this [Seed Starting Date Calculator](#) to determine when to start your veggie seeds. Enter **May 17th** as our area frost date.
- ❑ **Order Seeds** from this extensive list at [Seeds of Diversity](#)
- ❑ **Dormant plants/bulbs indoors** - Check cold stored bulbs or plants for rot or signs of disease. Spray lightly if dry or shriveled.
- ❑ **Blueberries** - Late February/early March, prune out dead, damaged, diseased wood if needed to an open shape to increase air circulation. More info [here](#).
- ❑ **Watch** - [Starting Seeds Outside in Winter](#) for ideas on how to start seeds outdoors in February or March.
- ❑ **Read** - Doug Tallamy's new book: Nature's Best Hope. For more reading suggestions visit our website under "[Learn/Print Resources](#)"
- ❑ **Bird feeders** - Keep bird feeders topped up for our winter residents or better yet, plan on adding some [native plants that feed birds](#). ☺



Doug Tallamy's new book is a must read for all gardeners.



Spring is on its way!!!



**Gardeners are waiting
on Spring like...**



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NATIVE BEES OF ONTARIO, Our Most Important Pollinators by Halton MG Hariette Henry

Bees are the most economically important group of insects in our landscape due to their pollination of agricultural crops. Though these benefits are often attributed solely to European honey bees (*Apis mellifera*), native wild bees are responsible for a large proportion of the economic benefits as well. Wild bees are also crucial for the pollination of most non-crop flowering plants, and thus play a very significant role in terrestrial ecosystems. There are approximately 800 species of bees in Canada and roughly 400 in Ontario.

Where do bees fit in to the history of life on earth?

They arose 144 million years ago at the beginning of the Cretaceous period when they diverged from their Apoidea wasp relatives. That was also the period when flowering plants first appeared. Predacious beneficial insects use nectars as sources of energy to fuel flight. Bees not only use nectar for energy, but they use it as an ingredient in the food they collect for their offspring (along with pollen). So it could be said, that it was at this time that bees became vegetarian.

They evolved particularly efficient nectar sucking equipment and their mouthpart structure diverged rapidly. Characteristics associated with different mouthparts (also called tongues) are often used by melittologists (an entomologist specializing in the study of bees) in attempting to classify bees into major evolutionary lineages.

There is a tremendous diversity in appearance, nesting behaviour and feeding habits of native bees. Some collect pollen from a wide variety of flowers. Others are more restricted in their dietary breath. They range in size from 2mm to 39mm and many are extremely hairy while some are quite bald. They come in a variety of colours, even green. Most are solitary (about 90%), however sixteen species of bumble bees in Ontario live together in hives. Some live in abandoned burrows, others in pithy stems and others in wooden snags.

As insects, bees have an external skeleton. They have three pairs of legs, and a body in three parts: the head, the thorax and the abdomen.

Bees are under threat from all sides; they have natural enemies such as parasitoids, food thieves and other bees. They are at risk from environmental factors such as weather and climate change. They must contend with disease and introduced species. Those who live in the ground are at risk of drowning. They risk losing feeding, nesting and overwintering habitat and they are at risk from chemical pesticides.

What can gardeners can do to help?

Plant a pollinator garden, become familiar with and learn to identify the native bees in our area and report sightings of species at risk to organizations such as "Friends of the Earth", The Ministry of Natural Resources and Forestry and iNaturalist.



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NATIVE SOUTHERN ONTARIO BUMBLE BEES

Bumble Bees - Genus *Bombus* within the Family Apidae

The poster at right reflects the 16 species of bumble bees that currently reside in Southern Ontario. They are generalist foragers and as such do not depend on any one type of flower. They are often the first bees active in late winter and the last in fall. Since they are active for so many months, they must be able to forage on a wide variety of plant species in a wide range of weather conditions to support a colony. Early and late season food resources (blooming flowers) are critical at these times for the successful establishment and reproduction of the colony.

To download this lovely poster go to wildlifepreservation.ca

Appearance

Bumble bees are quite large (13-25 mm in length) and are covered in hairs. This and their wide bodies are their most recognizable features. They are typically black and yellow with clear wings however there are variations.



Yellow-Banded Bumble Bee (*Bombus terricola*), one of three at risk bumble bees in Southern Ontario. The other two are Gypsy Cuckoo Bumble Bee (*Bombus bohemicus*) and Rusty-Patched Bumble Bee (*Bombus affinis*).



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Nesting

Most bumble bee species are social bees and live in colonies with different divisions of labour or castes. They occupy small hives of about 150-200 bees. Their hives are usually found underground in abandoned rodent burrows, although they can also exist in hollow trees, abandoned bird nests, rock walls or under a tussock of grass.



A bumble bee returns to its nest in an abandoned rodent burrow.



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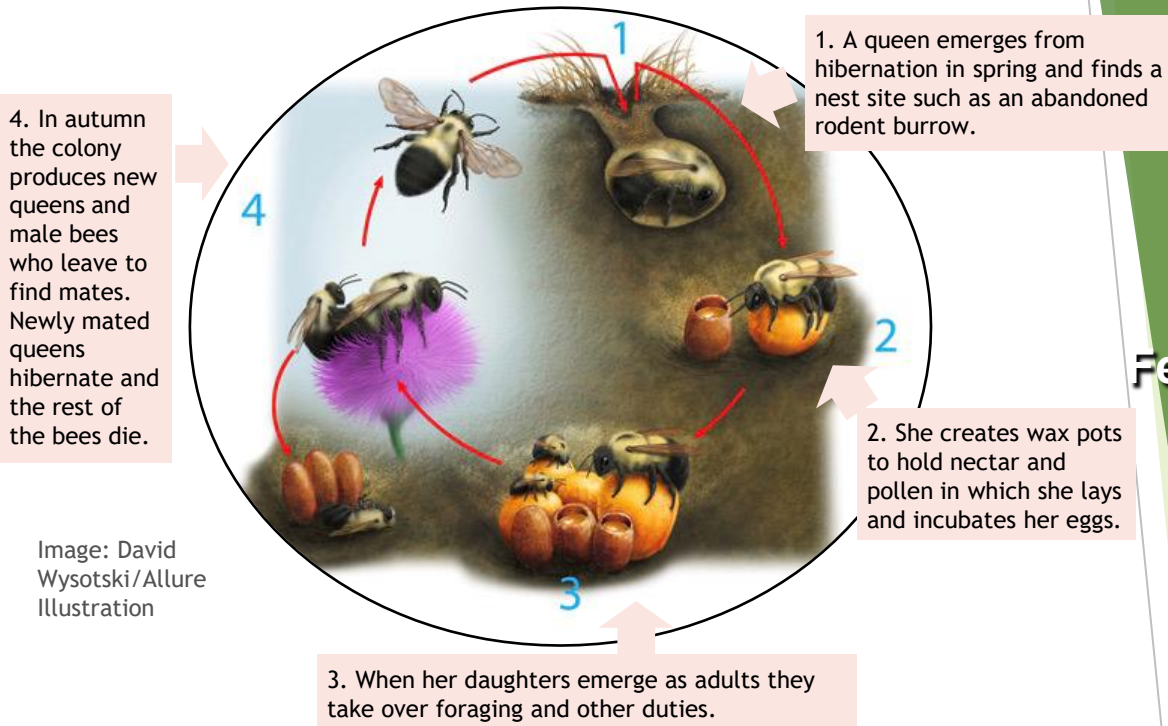
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NATIVE SOUTHERN ONTARIO BUMBLE BEES

BUMBLE BEES, Genus *Bombus* within the Family Apidae



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Foraging/Buzz Pollination

Bumble bees are able to fly in cooler temperatures and lower light than other bees and they perform a behaviour called “buzz pollination”, in which the bee grabs the pollen producing structure in her jaws and vibrates her wing musculature. This causes the flower to release more pollen than it would otherwise. Some plants including tomatoes and peppers benefit from this “buzz pollination”.

Video: Deep Look



To learn more about “buzz pollination” visit [this video on YouTube.](#)



If you would like to do more and learn more about the Rusty-Patched Bumble Bee and Ontario's native bees in general, the above booklet, published by Friends of the Earth Canada in support of Toronto's Pollinator Protection Strategy is free to [download here.](#)



Halton MG Hariette Henry

A Copse of Carolinians: *Indicator Trees*

Halton Master Gardener Allyn Walsh

We are fortunate to live in Carolinian Canada - an ecozone that is home to the most diverse plant and animal species in Canada. In previous newsletters we have discussed native trees, including maples, oaks, and conifers. But there are also much rarer trees to be found here, considered as “indicator species” characteristic of the Carolinian zone. These wonderful trees are worth planting and protecting - they are not only beautiful, but they have evolved with, and support, the wildlife in our zone.

Liriodendron tulipifera (tulip-tree)

Tulip-tree is a type of magnolia and is one of our tallest hardwoods (up to 35 metres tall). The distinctive lobed leaves make them easy to recognize, as do the large yellow-green blooms from which the common name is derived (they are no relation to *Tulipa* species). Rapidly growing, these trees do best in full sun with deep rich moist soil and are increasingly being planted as ornamentals. Look for them on city streets.



Photos: Daniel Tigner, Canadian Forest Tree Essences

Sassafras albidum (sassafras)

Sassafras is best known for its distinctive mitten-shaped leaf, which usually has a few different variations on the same tree (see photo). A lovely spicy odour may arise from any bruised plant part. Considered a small tree, or in some sites a shrub, *Sassafras* grows up to 20 metres high. While fairly rare in Ontario, we have a large pocket of them in the Royal Botanical Gardens at (you guessed it) Sassafras Point. Despite its rarity, this is an adaptable plant, not fussy about soil



Photos (L to R): Dow Gardens Archive; Steven J. Baskauf; Brian Lockhart; Vern Wilkins

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A Copse of Carolinians cont'd

MG Allyn Walsh

Cornus florida (flowering dogwood)

This showy tree has a layered branching pattern, and in the spring its tiny yellow flowers are surrounded by bold white (occasionally pink) bracts giving the appearance of petals. The flowers appear in early spring and have made this a very popular tree for horticultural planting. An understory tree, it reaches heights of only 5-15 metres, depending on location. It prefers moist well drained sites, with light shade to full sun. Listed as endangered, it unfortunately is prone to anthracnose disease, but there are plenty to be seen in gardens in our area.



Photos (L to R): Sean Fox; Steven J. Baskauf; Steven J. Baskauf; Sean Fox

Platanus occidentalis (sycamore)

Have you noticed trees with beautiful “patchwork” bark with flaking patches revealing white, cream and green inner bark? These may be our native *Platanus occidentalis*. You may also see London plane trees, which are a hybrid of the native with Asian *Platanus orientalis*. One differentiating feature is that the bark of our native tree tends not to peel away near the base of the tree. The fruits which are often seen right through the winter are born singly unlike the hybrid which hang in twos and threes. *Platanus occidentalis* is a rapid growing tall tree (up to 35 metres) needing plenty of space and has an extensive moisture loving root system that searches out sewage pipes. It also drops considerable debris. For all these reasons, most of the trees seen in cities are the hybrid London plane trees which survive extremely well in urban environments.



Photos (L to R): Vern Wilkins; Sean Fox; Steven J. Baskauf; Steven J. Baskauf

Did you know?

The roots of Sassafras were one of the original ingredients in root beer! (since banned as a likely carcinogen)



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A Copse of Carolinians cont'd

MG Allyn Walsh

***Castanea dentata* (American chestnut)**

No, this is not the quite common *Aesculus hippocastanum* (horse chestnut) from which we collect conkers. This is our native chestnut, nearly wiped out by the introduced chestnut blight in the early 20th century. Once common in our ecozone, this very tall tree is on the brink of extinction and surviving specimens are at most 10 metres in height. Its name derives from its leaves which are very long and oval with distinctive teeth. This is a very adaptable tree, tolerating a wide range of soil, sun, and moisture conditions. The Royal Botanical Gardens has planted several specimens in the Helen M. Kippax Garden, which is well worth a visit.



Photos (L to R): Joseph O'Brien USDA; Natural Resources Canada Canadian Forest Service; Bern Wilkins; Melissa Spearing

Learn more! These websites have great information and photos about these and other native trees

- [Ontario Tree Atlas](#)
- [Carolinian Canada Indicator Species](#)
- [RBG Trees on the Brink](#)
- [Ontario Trees](#)
- Click on your specific growing region [on this map](#) to launch a list of native trees & shrubs growing in your region.



Did you know?

The Sycamore tree symbolizes strength, protection, eternity and divinity.



Image from Gardening Humour FB



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Question of the Month

Just wondering what are these small white insects on my hibiscus? I brought it indoors in October. I thought it's a spider web. I keep cleaning but it keeps coming back.

Help please! H. Ajmal [MGOI](#)



You have **spider mites!**

One reputable hibiscus grower recommends **DROWNING** them. "This is our favorite method for all hibiscus growing in small-medium pots and for houseplant hibiscus." You only have to do it ONCE to kill all spider mites and their eggs. It kills every kind of spider mite, even the most microscopic ones that can hide in cracks in the bark

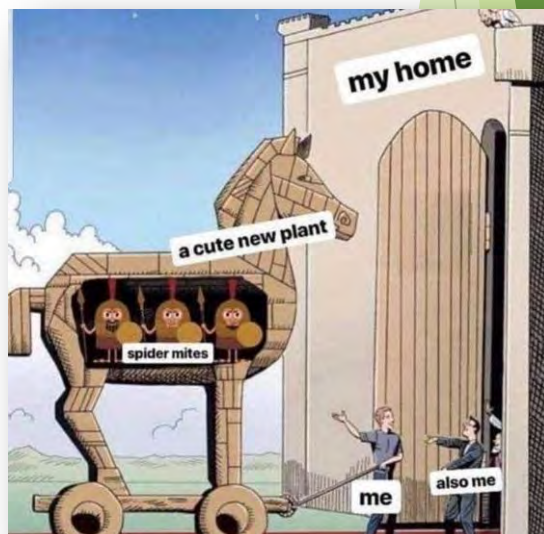
- Wrap the plant **pot** in material which lets water, e.g. a large sock on a small pot, fabric, panty hose, pillow case or extra heavy aluminum foil on a larger pot.
- Secure opening around the base of the plant, e.g. twist tie.
- Chose a container that will allow you to submerge the plant & pot, e.g. bucket or sink for a small pot, bathtub for a large pot. Submerge the plant completely-lay it on its side if large.
- Fill the container with water that is about 90°F (32°C) until it covers the plant. It needs to be warm enough to dissolve the eggs and kill larvae, but not kill the plant or damage leaves. It should not be so hot that you can't comfortably keep your skin in it.
- Fill the tub until all the plant is covered-you may need to weigh it down, e.g. a large towel covered with oven racks over top for large plants.
- Leave the plant submerged in the water for 45-60 minutes. Use a timer.
- Drain the water & stand the plants up until the excess water drains out of the pots.
- Remove the fabric covers, and scoop any loose soil in the fabric back into the plant pots.
- Leave the plants out of bright light for a few hours to rest, then put them back where they belong. Be careful not to water the plants again until the soil dries out after this thorough soaking.

Other more traditional remedies:

- Prune leaves, stems and other infested parts of plants well past any webbing and discard in trash, not in compost.
- Wash plants with a strong stream of water and reduce numbers.
- Mist often to increase humidity.



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Cathy Kavassalis - Halton Master Gardener

Image: Gardening Humour FB

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"What's Growing On"

Halton Master Gardener Meetings continue to be held **virtually** until further notice. We are still accepting new members! Our next meeting will be Wednesday, February 3rd. Interested? Email us! We are still answering your garden questions, so send us an email! It's what we do best! HaltonMasterGardeners@Gmail.com

Gardening Events are Virtually Here!



February
2021



HAMILTON SEEDY SATURDAY

- Virtual Seed Swap
- Workshops each Saturday in February
- Here's a sample of what's offered:

February 6th, 2021

- 11:30 AM-12:30 PM - An Introduction to Seeds- Seeds Matter
- 1:00 PM- 2:00 PM Native Plants and Your Landscape **Janet Mackey (Halton MG)**



February 13th, 2021

- 11:30 AM-12:30 PM - Indigenous Sustainable Agriculture
- 1:00 PM- 2:00 PM Discover Rare Produce
- 2:30 PM- 3:30PM Garden Design & Planning

HALTON GARDEN WEEK VIRTUAL EVENT!

•Celebrate spring and gardening
Saturday, February 20, 2021
to Saturday, February 27, 2021

•Registration is free!

•Featuring our friends:

- Guelph & Wellington Master Gardener Sean James
- Alex Henderson, Royal Botanical Gardens



Click on links to register for these FREE events

- [A Beginner's Guide to Building a Rain Garden](#) Wed, Feb 17 at 7 PM
- [WA Journey Through Your March Garden](#) Thurs, Feb 18th at 6 PM
- [Wildflower All-Stars for Sun or Shade](#) Sat Feb 27 at 10 AM



Don't forget! We are still answering your garden questions!

Contact us at HaltonMasterGardeners@Gmail.com

And we have lots more information on our website at haltonmastergardeners.com

