

Cross Pollination

Newsletter of the Halton Master Gardeners



December & January Garden To Do List

- ❑ **Houseplants:** Indoor house conditions in December and January are difficult for many houseplants. Follow these best practices for healthier plants:
- ❑ **Watering** - use **room temperature** water. Keep a container filled and ready to use. Never use ice cubes to water orchids-there is NO ice in the tropical rainforest! Plants with thick, rubbery leaves *usually* need *less* water. Plants with thin or delicate leaves *usually* need *more* water and humidity. Water only as needed-check by lifting the pot. If it feels "heavy", wait for another week or so. Avoid watering the "crowns" of plants, as this can lead to rotting (African violets/Primroses/Orchids).
- ❑ **Clean & tidy** – A water spray in the sink, shower or with a spray bottle keeps leaves healthy & free of dust and pests. Remove dead or dying leaves and stems as they appear.
- ❑ **Light** – Place plants in brighter south facing windows, use LED lighting or reflective white surfaces to increase lighting, if needed. Rotate pot ¼ turn weekly for even growth.
- ❑ **Fertilizer** – Most houseplants will not need any fertilizer as they are not actively growing. Orchids require very little fertilizer, but can be fed, "weakly, weekly", using a dilute organic fertilizer. Dilute by ¼ or more.
- ❑ **Pests** – Inspect plants weekly for sticky areas, dulling of leaves, fuzzy or scaly parts. Use a magnifying glass or phone app such as "[Magnifier Camera](#)" to identify pests-an ID helps to target treatment. Many insects can be kept in check with frequent misting of water to increase humidity. Flying insects such as white fly can be trapped with [yellow sticky strips](#). Treat [mealy bugs](#) (appear as white fluff) and [scale](#) (like small dome shaped shells) by dabbing them with a cotton swab dipped in alcohol. Spraying with insecticidal soap can also control these and other insects-follow instructions carefully. Repeated treatments will be needed to control pests.
- ❑ **Lawn** - If you still have leaves on your lawn, rake them into the garden (or bag/compost to store for spring mulching) when the weather permits. Avoid walking on lawn if soil is soft and leaves footprints.
- ❑ **Read** – Curl up with a favourite garden magazine or book-see the [excellent selections on our website](#), both for reading and for holiday gifting!
- ❑ **Check** our [November newsletter](#) for any garden jobs that you may have missed!



Have a wonderful & safe
holiday season!
Please note there is
NO
January newsletter.
See you again in February!



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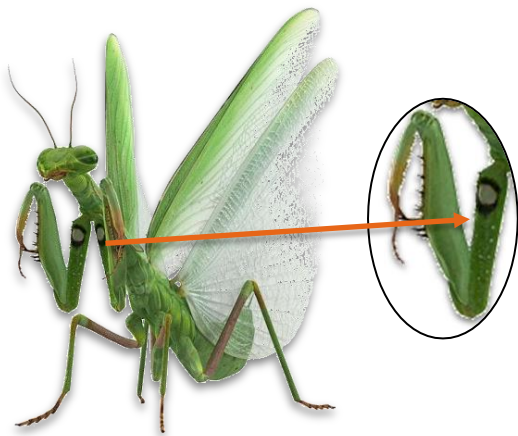
Cross Pollination

PRAYING MANTISES in ONTARIO

by Halton MG *Hariette Henry*

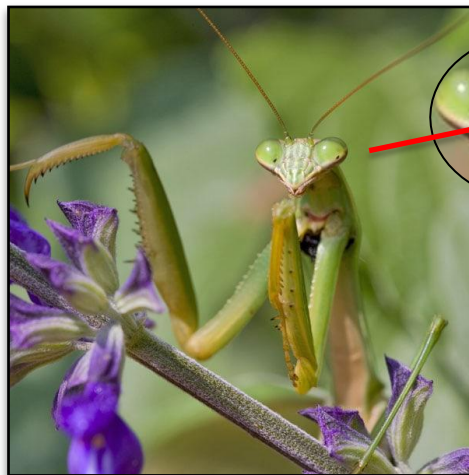
Did you know that praying mantises are non-native species in Ontario? Praying mantises are carnivorous insects that have evolved to be very effective ambush predators. The most striking features that all Mantodeas share are a triangular head with large compound eyes (that give them excellent vision for an insect) and a first pair of raptorial legs that are highly modified for the efficient capture and restraint of fast-moving or flying prey. Mantid sightings appear to be growing in frequency in Ontario and their range seems to be moving northward as they are now reported as far north as Sudbury.

There are two species of praying mantis commonly found in the province and neither species is native.



Mantis religiosa, European mantis
Image: eol.org, Antonio Pena

Mantis religiosa most commonly known as European mantis was accidentally introduced to the Rochester NY area in 1899. It then spread northward to southern Ontario and Quebec. The insect is about 10 cm long as an adult (females are somewhat larger and heavier) and is generally green in colour though it can be yellow and brown. **At the top of the legs there is a black spot with a white dot in the centre and there are yellow dots on the forearm and lower section of the front legs. (see inset)**



Tenodera sinensis, Chinese mantis
Image: Planet Natural

Tenodera sinensis, Chinese mantis is native to Asia. In 1896 this species was accidentally introduced by a nursery person near Philadelphia. This species is slightly longer than *Mantis religiosa* at 12-13 cm as an adult, and is light green or brown in colour with long wings extending beyond the end of the abdomen. **Light vertical stripes on the head between the eyes are useful in identifying it. (see inset)**



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PRAYING MANTIDS in ONTARIO...continued

Generally, mantises protect themselves by camouflage, most species being cryptically coloured to resemble [foliage](#) or other backgrounds, both to avoid predators and to better snare their prey.

Mating season for mantises takes place in Autumn. The female lays between 10-400 eggs. The egg mass is called an [ootheca](#) and typically they are attached to a flat surface, sometimes wrapped around a plant or even deposited into the ground. The eggs can sometimes be preyed upon by other insects. In temperate climates, adults do not survive the winter and eggs undergo a diapause (a period of suspended development), hatching in the spring.

What to do with invasive oothecae?

- Give them to local bird rehabilitation centres — if a local bird rehabilitation centre doesn't know what you're talking about, inform them that insectivorous birds absolutely adore frozen mantid hatchlings.
- Give them to a neighbour who has chickens.
- Give them to a neighbour who has an exotic pet.
- Remove them and dispose of them.



Recently laid *M. religiosa*
ootheca

Image: Wikipedia, Hans Hillewaert



M. religiosa, European
mantid, hatching from the
ootheca

Image: wikimedia.org

While these insects are interesting to observe, there are increasing concerns about their impact on our ecosystems within the scientific community. They displace similar native generalist predator species through competition, predation and transmission of disease. And as they are extremely predacious they are as likely to prey on butterflies, native bees, honey bees and hummingbirds as they are to prey upon pests.

Want to read
more?



William E. Snyder and Edward W. Evans,
[Annual Review of Ecology, Evolution and Systematics](#)
2006 37:1, 95- 122
(PDF download)



bizarrocomic.blogspot.com

Cross Pollination

Our Native Conifers: Part 1 Pine and Spruce and Fir Oh My!

Allyn Walsh Halton MG

With winter almost upon us, this seems a good time to take a look at the many wonderful conifers native to our area in Carolinian Canada. It can be a bit confusing though - for example the tree commonly known as eastern red cedar is a juniper, not a cedar. And Atlantic white cedar is - you guessed it - not a cedar at all. It's a *Chamaecyparis* (false cypress). This month we will look at the distinguishing features of native members of the *Pinaceae* family: *Pinus*, *Picea*, *Abies* and *Larix*. The descriptions and photos below highlight the distinctive features of each. Next month, Part 2 will examine *Tsuga*, *Thuja* and *Juniperus* (hemlock, cedar and juniper) as well as taking a peek at a near native *Chamaecyparis* variety.

Abies (Fir)

Leaves: Flat, soft needles, each with a single point of origin and a blunt tip. Directly attached to the branch with a "suction cup" appearance all around the twig.

Cones: Initially dark green or blue before turning brown. Mature cones are unique in growing upward, like candle flames.

Shape: Tall and upright, with some room between branches

Cultivation: Full sun to partial shade. Mildly acidic rich soil. Tolerates thin topsoil.

Native species: *Abies balsamea* (balsam fir)



Abies balsamea (L)

Tsuga canadensis (R)

Abies and *Tsuga* have similar flat needles - but note the light undersurface of *Tsuga* (right two photos). *Abies* have distinctive upright cones (left).

Photos by Daniel Tigner, Canadian Forest Tree Essences Ontario Tree Atlas

Tsuga (hemlock)

Leaves: short & shiny needles, green on top, pale underneath, mostly held to the side of the branch.

Cones: downward hanging, long and oval shaped.

Shape: Conical with branches growing straight out from the trunk, drooping at the ends.

Cultivation: Prefers moist cool areas, tolerates many soil types. Shade tolerant but requires moisture.

Native species: *Tsuga canadensis* (Eastern Hemlock)

Cont'd on next page.



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Our Native Conifers Part 1 cont'd

MG Allyn Walsh

Pinus (Pine)

Leaves: Long needles, growing in clusters (2 red pine, 3 yellow, 5 white)

Cones: Stiff woody cones hanging toward the ground

Shape: Open canopy, "jagged lollipop". Branches tend to turn up at the ends

Cultivation: Well drained acidic soil. Full sun

Native species: *Pinus strobus* (eastern white pine) *Pinus resinosa* (red pine) *Pinus banksiana* (Jack pine)



Pinus strobus

Pinus strobus

Pinus resinosa

Pinus banksiana

Counting the needles in the cluster easily identifies *Pinus strobus* (white pine) with 5 soft needles per cluster. *Pinus resinosa* (red pine) and *Pinus banksiana* both have two firm needles in a cluster, but the *P. resinosa* needles are much longer.

The bark of *P. resinosa* has a distinct reddish hue. *P. banksiana* has curved cones.

Photos by Daniel Tigner, Canadian Forest Tree Essences Ontario Tree Atlas

Picea (Spruce)

Leaves: short & stiff needles with pointed ends, tending to be square shaped and roll between fingertips. Single point of origin. Small woody attachments, in a whorled arrangement.

Cones: Smooth, flexible with thin scales, hanging toward the ground

Shape: Pyramidal shape. Branches vary between trees - either upturned or down turned

Cultivation: Very tolerant of soil type, moisture level and degree of sun

Native species: *Picea mariana* (black spruce), *Picea glauca* (white spruce).



Picea mariana (left 2 photos)

Picea glauca (right 2 photos)

P. mariana needles are dark green, and cones are egg shaped.

P. glauca needles have a waxy layer which lightens the colour.

Photos by Daniel Tigner, Canadian Forest Tree Essences Ontario Tree Atlas



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Our Native Conifers Part 1 cont'd

MG Allyn Walsh

Larix (tamarack or larch)

Leaves: Deciduous - needles turn bright yellow before falling in autumn. Grow in tufts of 10-20+ needles.

Cones: Small Light brown, rounded. Look like flower buds

Branches: Widely spaced, do not droop. In winter, twigs have small bumps where needles were inserted

Cultivation: Requires full sun, but tolerant of soil and moisture levels

Native species: *Larix laricina* (tamarack or American larch)



Larix needles in their typical cluster of many short needles (L).

The striking autumn colour stands out amongst other *Pinaceae* species (centre).

The small cones are held close to the branch, looking like little brown flowers (centre).

Photos by Daniel Tigner, Canadian Forest Tree Essences Ontario Tree Atlas (L and centre)

Photo on R by pasja1000 from Pixabay

Learn more! These websites have great information and photos

[Ontario Tree Atlas](#)

[American Conifer Society](#)

[Identifying conifers](#)

[Ontario Trees](#)



Did you know?

The poison hemlock that famously killed Socrates is a product of *Conium maculatum* – a plant entirely unrelated to our native *Tsuga* (hemlock) trees. In fact, the needles of *Tsuga canadensis* can be steeped to brew a delicious tea!



Poison hemlock
Conium maculatum



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Question of the Month

How do I care for my amaryllis?

"I got a beautiful amaryllis for Christmas. How do I care for it and get it to bloom next year?"



Amaryllis (*Hippeastrum*) come in a range of colours and sizes and are usually available in stores beginning in the fall. The larger more expensive bulbs are more likely to produce multiple stalks & more flowers. With good care, you can keep them growing & blooming for years to come!

Regeneration period - about 6 months

- January to June – Clip old flowers as they die. When all flowers have died, cut old, dried flower stems about 2-3 inches above the bulb and place the plants in a sunny window, allowing the leaves to grow and make new energy for the bulb. Water when the soil is dry. Fertilize with a dilute organic fertilizer about once a month. Bigger bulbs = more flowers



- Late May to early June – Move pots outdoors once all chance of frost is past. Start in the shade and gradually move to full sun. Grow in pots or sink pots into the soil rather than direct planting (roots are brittle and easily damaged). Make sure you mark the location of your plant if sinking into soil—once the leaves dry out, it's easy to lose your bulbs.

Drying period –about 3 weeks

- Late July to late August –Transition to a drier area of the garden (e.g. under an overhang) and gradually stop watering to encourage the leaves to dry out and the bulb to go dormant.

Resting period- about 2 months

- Mid August/September – Remove dead, dying foliage and do a general clean up of pot &/or bulb if leaving bare. Transition bulbs/pots to a cool dark place, ideally, 10-13°C (50-60°F) for about 8 weeks. Allow the pots/bulbs to dry out but do not allow to freeze.

Start growing again –flowering in 4-8 weeks

- Mid October/November – Move the pot back into a warmer sunny area. Repot if needed, about every 3 -4 years. Roots are sensitive & should not be disturbed more frequently.
- Repotting: Choose a pot 1-2 inches larger in diameter than the bulb and at least 5 inches deep with good drainage holes. Add a light potting mix & then place the bulb (roots down & pointy side up ☺) in the pot. Add soil to within an inch of the top so that about ½ to 2/3 of the bulb is showing. Water well. Avoid watering on the neck of the bulb.
- Keep bulb on the dry side until it starts to grow. Increase watering as plant grows, but don't overwater as the bulb can rot. Stake the flower stem if needed and secure with twine or plant clips.

Your amaryllis should flower in December to January!

Claudette Sims
Halton Master Gardener

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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



Beat the Winter Blues

Virtual Technical Update

We might be in for a long winter, so consider signing up for this event!

- Organized by the Toronto Master Gardeners
- Registration is now open to the public.

Tickets for this virtual Zoom event are \$25 each.

[Click here to register.](#)

Beat the Winter Blues
Sunday, January 10, 8:30 am to 2:30 pm
Opening Remarks @9:00 am

Niki Jabbour
Growing Under Cover: Techniques for a More Productive, Weather-Resistant, Pest-Free Vegetable Garden

Joyce Hostyn
Re-wilding: Re-enchanting Our Gardens and Cities

Darryl Cheng
An Engineer's Approach to Houseplant Care

Ticket \$25
Register for Zoom webinar at <https://bit.ly/2Jk4y4H>
Registration ends January 3, 2021

Toronto Master Gardeners Technical Update 2021



Winter Wonders at the RBG

- Wednesdays to Sundays
- Nov 18 to Dec 23
- Additional Dates: Dec 27-30, Jan 2, 3
- Free with your RBG admission

Short Videos for YOU!

- [Slime Mold Smarts](#) – Nova
- [Brainless Slime Molds Navigate Mazes and Make Decisions](#)
- [How to Care for Christmas Cactus](#)
- [Poinsettia Care Guide](#)
- [EcoBeneficial Interview: Doug Tallamy & Black Cherry](#)
- [Amaryllis Unboxing & Planting!](#)



Thank you to our talented Master Gardener volunteers who put this newsletter together for you each month:

- Halette Henry & Allyn Walsh (writers)
- Isabel Belanger (editing) & Claudette Sims (editing/formatting)
- Janet Mackey (Webmaster/newsletter distribution/blog)

And to you our readers for your support! Stay well and see you in February!