

Halton Master Gardeners Monthly Newsletter AUGUST 2025 | VOL. 18 ISSUE 7

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By Pam McDonald, Halton Master Gardener

Image: <u>Ladybird Johnson Wildflower Centre</u>

American Columbo, *Frasera caroliniensis*, is a striking and unusual herbaceous plant native to eastern and central North America. In Canada, the Carolinian Zone of Southern Ontario is its only known location. Isolated populations have been identified in Halton, Hamilton, Brant and Niagara.

As with many other native species of plants, the greatest threats to American Columbo are habitat loss and invasive species, particularly garlic mustard which enjoys the same growing conditions. Both the plant and its habitat have been protected under Ontario's Endangered Species Act since 2013. Federally, it is also protected under the Species at Risk Act.

American Columbo belongs to the *Gentian* Family, *Gentianaceae*. It is characterized by a basal rosette of large, bright green, whorled leaves. The rosette expands every year with more, and bigger leaves that may reach 15 inches (40cm) in length.

When American Columbo is ready to flower it sends up a 4-to-8-foot tall (120 – 240 cm) flower stalk. The star-like flowers have four lobes with fringed edges that are greenish-yellow with purplish spots or streaks. They form a cluster or panicle atop the flower stalk. The flowers attract a variety of insect pollinators including sweat bees and bumblebees. Bloom time in Ontario is June, while across its range American Columbo will bloom between June and August.

Continued on next page

AMERICAN COLUMBO, FRASERA CAROLINIENSIS (CONT'D)

In traditional medicine, the roots were used by Indigenous peoples and early settlers for various remedies, including as a tonic or purgative. Despite the name "columbo," it is not related to the commercial "calumba root" used in herbal medicine.

Why does American Columbo require patience? This plant blooms *only once in its lifetime* – *and it may spend 30 years to reach maturity* depending on growing conditions and location in its range. When it has stored up enough energy, its tall flower stalk shoots up and produces a show stopping panicle of as many as 100 flowers. The plant dies shortly after putting on this exhausting display.

(For a gardener of the author's septuagenarian vintage, growing this plant would require optimism as well as patience!)

Monocarpic is the term to describe a plant that flowers only once in its lifetime and then dies. Plants with this characteristic may live for several years in a non-flowering or vegetative state. Then, when conditions are right or the plant reaches maturity, it produces flowers, sets seeds, and dies shortly after. The purpose of this one-time flowering is to maximize reproductive success by putting all the plant's energy into one large flowering event.



The author observing American Columbo in bloom, Hamilton, Ontario

Biennials like Evening Primrose (*Oenothera biennis*), parsley, fennel and carrots, which flower in their second year and then die, are less dramatic examples of monocarpic plants.



Image: Basal Rosette of American Columbo



Image: Prairie Moon Nursery

American Columbo is not a plant many gardeners are likely to consider growing in their gardens. It is however a fascinating example of an unusual strategy for perpetuation of a plant that, in Canada, is unique to the Carolinian zone. It is a lucky gardener who gets to see one in bloom.

Continued on next page

AMERICAN COLUMBO, FRASERA CAROLINIENSIS (CONT'D)



Each flower has a conspicuous nectar pad that is heavily fringed

Image: Georgia Botanical Society FB



Read More!

- North Carolina Botanical Garden: Once-in-ageneration; American Columbo Bloom
- Illinois Wildflowers
- Ontario Species at Risk
- Recovery Strategy for American Columbo,
 Frasera caroliniensis in Canada



Plant Type: Herbaceous perennial (monocarpic)

Family: Gentian (Gentianaceae)

Height/Width: (H) 45 cm (18") (W) 60-90 cm (2-3')

Features: Species at risk

Faunal value: Long-tongued bees such as honeybees, bumblebees, and *Anthophorine* bees (*Anthophora* spp.) for it's nectar.

Companion Plants: Wild Geranium, Foamflower, and

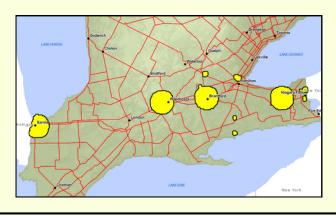
Mayapple.

Landscape Uses: Open woodlands, rocky slopes and

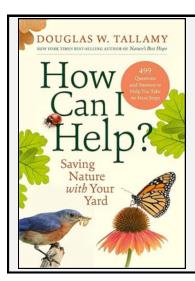
upland meadows.

Supports:

Range of American Columbo in Ontario





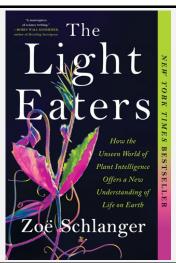


"If you have a garden and a library, you have everything you need." Marcus Tullius Cicero

Marcus Tullius Cicero

Doug Tallamy's newest book "How Can I Help?" is really worth the read even if you have read all of his previous works. In a question and answer format, (which is actually much more engaging than it sounds), he delves into numerous questions he has been asked over the years.

I loved "<u>The Light Eaters</u>" so much that I'm reading it a second time and need to buy my own copy so I can highlight my favourite parts. Who knew plants were so smart...and had eyes...and could be chameleons!



AUGUST GARDEN 'TO DO' LIST

The "Dog Days of Summer"... By Claudette Sims, Halton Master Gardener are the hottest, most humid period of the year. The expression **Perennials** – Cut back any tired looking originates from ancient Greece and Rome, where it was associated perennials, yellowed or dying stems, leaves or with the rising of Sirius, the Dog Star, alongside the sun. They flowers, e.g., lavender, penstemon, perennial believed this amplified the sun's heat and brought about a period of geranium. Remove seed heads to control the intense heat, drought, and even illness. spread of aggressive self-sowing perennials or Let's hope the dog days are done! to save seeds for winter sowing. Where Use a strong spray from your hose or a gentler possible, leave seed heads to feed birds in the spray from a pressure washer to knock the scale late summer & fall. from your trees and allow ladybugs the chance to **Annuals** – Pinch back old flower heads or control them. lightly shear the tops to keep plants producing **Lawn** – Encourage deep roots by watering less flowers. frequently, but more deeply. Follow these cultural Potted Plants and baskets may need more practices to have healthy lawns that use waterthan one watering per day during hot weather. If efficient practices. plants wilt despite watering, gently tip them out Weeds – Every weed pulled now is thousands of to see if they are pot-bound and need a larger weeds you won't have to deal with later! Removing container. flowers before they go to seed will greatly reduce Fertilize plants as needed using a slow release the seed bank in the soil. Don't add flowers or organic product such as hen manure. seeds to compost. Watch for these August weeds: bindweed, purslane, creeping bellflower, thistle, **Veggies** – Water at ground level during dry or burdock, black medick, dog strangling vine, yellow hot weather to reduce plant stress. Remove wood sorrel, buckthorn, diseased and damaged leaves/fruit. Avoid high nitrogen fertilizers on tomatoes, squash and '**Pests'** – Let's stop reaching for pesticides to peppers as it can lead to blossom end rot. control insects. Plants were made to be eaten-they Harvest vegetables and berries regularly so that transform the energy from the sun into food for the plants keep producing. Add new plantings insects, animals and humans. Plants can tolerate like chard, radishes, carrots, kale, spinach, some herbivory and many can produce chemical turnip, beets, basil as temperatures cool. compounds to fight pests if you give them a chance. Identify veggie pests to take effective action. Remember that a lot of 'damage' is cosmetic and leaving the 'pest' for birds to eat supports our **Strawberries** – August is a good time to dwindling bird population. So welcome robins, renovate your strawberry beds. crows, sparrows, blue jays, cardinals and animals **Phalaenopsis Orchids** – Inspect plants for like raccoons, skunks, moles, shrews; they all eat pests and complete any repotting this month. **Japanese beetles.** Add wildflowers to attract Fertilize weekly & water carefully. Encouraging beneficial spiders, assassin bugs, ants, healthy new leaves will give your phalaenopsis groundbeetles, predatory stink bugs & tachinid flies orchids the energy to bloom well this winter. to keep your garden in balance. Earwigs like to hide in small, dark places so trapping is effective in **Trees** – Water deeply during hot, dry periods; reducing populations. Scatter rolled cardboard traps reduce soil compaction around trees by using in problem areas & check daily. Remove trapped mulch or growing perennials or shrubs at the earwigs by shaking into a pail of soapy water. Learn base instead of lawn. Water newly-planted trees more about <u>earwig management here</u>.

and shrubs weekly. Check for magnolia scale.

Orange Daylily, Hemerocallis fulva

Kirsten McCarthy, Halton Master Gardener

Orange daylilies (Hemerocallis fulva) seem to pop up out of nowhere. One day there is nothing, and then, the next day, they are everywhere: front gardens, side gardens, backyards, boulevard gardens, roadsides and (gulp!) conservation areas. Originally from China, Japan and Korea, Orange Daylilies were introduced to North America as an ornamental plant in the 19th century and have been a garden favorite ever since. For gardeners, Hemerocallis fulva is also commonly known as Orange Daylily, Tiger Lily or 'Ditch Lily' because it thrives in ditches and other neglected, drought tolerant spaces. For many, this is their reason to plant and/or keep this July to late autumn, continuously blooming plant. But gardeners should be cautious!! A quick internet search about ditch lilies will be met with "A Cautionary Tale" as it is more harmful to our gardens than it is beautiful.



Years ago, Peterborough Master Gardener Emma Murphy learned her lesson the hard way when she planted the Orange Daylily to create some privacy between herself and her neighbour. In no time, the plant took over the space and choked out every other species.



Image: Potomac Conservancy

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ORANGE DAYLILY, HEMEROCALLIS FULVA (CONT'D)

Described as a "monster" by some, Orange Daylilies grow in full sun to partial shade in average, well-drained soil, but tolerate poor soil as well. It is very low maintenance with moderate water requirements and naturalizes very easily. Once planted, the clump spreads rapidly by rhizomes—thick, fleshy roots that store nutrients for the plant's growth. The roots grow horizontally, just below the soil surface, and produce new shoots and flowers each year.

Identification

Daylilies are distinct from true lilies, *Lilium* spp. Daylilies are in the *Asphodelaceae* family while Lilies are in the *Liliaceae* family. True to their name, the blooms only last for the span of one day, unlike other types of Lilies. Another difference between a Daylily and a true Lily is that the flower stalk of Daylilies is completely devoid of leaves. The leaves of Daylilies grow up separately from the soil, and are long, bright green, and strap-like, shooting up from the soil and then curving back to the ground. This creates a foliage ground cover outside of the blooming season. The Orange Daylily blooms are up to 5 inches in diameter, their scapes rising up to 6 feet above the sword-like leaves.

Removal

One of the most effective ways to remove daylilies from your garden is to hand dig them out after a rain or when the soil is moist. Using a pitch fork can help loosen the soil around the plant and get in between the clumps to remove them. You'll need to ensure that you get all the tuberous roots as well as the rhizomes, as any small piece of root left in the ground will grow a new plant. Chances are you

will need to repeat this process several times over the period of a few weeks to completely remove.



Rhizomous Roots Image: Kirsten McCarthy



Michigan Lily, Lilium michiganense



Michigan Lily (Lilium michiganense) is a stunning North American, southern Ontario native perennial herbaceous plant that grows naturally in wet meadows, fens, swamps and moist, open woods. Once established, Michigan Lily can withstand drought and drier conditions. Natural habitats include moist soil prairies, openings in deciduous woodlands and sandy thickets, moist sandy meadows along rivers, and prairie habitat along railroads. Michigan Lily typically grows 2-5' tall with elliptic to lance-shaped, lower leaves (up to 4" long) that are arranged in whorls around the stems. The downward-facing, gorgeous orange-red flowers (usually 1-8 flowers and 3" wide) with densely-spotted, broadly-reflexed sepals and petals bloom in a loose inflorescence atop upright stems in June and July for about a month.

Further Information:

- Peterborough Master Gardeners
 - A Cautionary Tale
- The Marion County Master Gardener Blog
- Potomac Conservancy
- Office of the Ottawa General Auditor <u>Management of Invasive Species</u>
- Epic Gardening Removal
- · North Carolina State Extension





By Hariette Henry, Halton Master Gardener

Sensitive to pollution, insects are indicators of healthy ecosystems. The best way to attract Dragonflies, *Anisopterathese* and Damselflies, *Zygoptera*, to your yard is by adding a pond. The most attractive pond features for these beneficial insects are:

- Ponds that are out of the wind and have afternoon sun.
- Ponds that have emergent vegetation (plants with stiff stems) providing places for egg laying, habitat for naiads to make their final transformation into adults and places to hunt for food and hide from predators.
- Ponds with native plants with whom insects have co-evolved.
- Ponds with rocks around the perimeter, giving adults a place to warm themselves in the sun.
- Ponds with tall plants that provide perching sites for adult Dragonflies and Damselflies.

Dragonflies and Damselflies belong to the order *Odonata*, an order of flying insects that mostly evolved in the early Mesozoic era. Dragonflies reside in the suborder *Epiprocta* and Damselflies in the suborder *Zygoptera*.

At first glance Dragonflies and Damselflies appear to be quite similar. Both are long and narrow insects that are beautifully coloured in iridescent greens, blues, yellows and reds. They have large rounded heads covered mostly by two large compound eyes that allow them to have almost 360 degree vision. In addition, they also have three simple eyes called ocelli (light detecting organs) that consist of a single lens and several sensory cells. Unlike compound eyes, ocelli do not form a complex image of the environment but are used to detect movement.

PR How do I attract beneficial insects like Dragonflies and Damselflies to my garden?

Both dragonflies and damselflies have six legs located on the thorax, near their head; these are used more for perching, egg laying and hunting than for walking. They have two pairs of wings comprised of small criss-crossing veins that add strength and durability. The mouthparts are on the underside of the head and include simple chewing mandibles in the adult.



Image: Female <u>Common Blue Damselfly</u> by Dave Smallshire



Image: <u>Common Whitetail Dragonfly</u>
(Plathemis lydia)

Continued on next page



There are some physical differences between the two suborders. Adult damselflies are smaller and more slender than dragonflies. Their eyes are more separated and their two pairs of wings are of equal size causing them to be weaker flyers. While at rest they fold their wings together up over their long delicate abdomen, much like a resting butterfly. In contrast adult dragonflies are larger and their hind wings are wider than their front wings, allowing them to be stronger fliers. In fact they can fly straight up or down, go backwards, fly upside down and hover, and when at rest they hold their wings out flat.

Dragonflies and damselflies are most often found near water as they spend their larval stage on the bottom of ponds, streams, lakes, creeks and rivers. All Odonata have aquatic larvae called naiads, and both naiads and adults are carnivorous. The naiads breathe through gills and eat tadpoles, snails, mosquito larvae and other aquatic insects. The larval stage lasts anywhere from 11 months to up to 5 years as they can go through anywhere from 9-14 molts, depending on the species. The adult stage lasts, on average, a mere five weeks. Emergent and shoreline plants provide areas where dragonflies and damselflies can rest and take cover from predators. Even with their acute vision and agile flight both dragonflies and damselflies fall prey to birds, fish, spiders, frogs, lizards and even other dragonflies.



Image: <u>Common Green Darner (Anax junius)</u> Chuck Evans Mcevan / Wikimedia Commons / CC BY 3.0

Dragonfly love making has been described as a rough and tumble affair! To mate, the male first grabs a female by the back of her neck using claspers at the end of his abdomen — these structures actually fit into species specific grooves in the female. From here, the pair can fly around together in tandem. If the female is sexually receptive, she will lift her abdomen up to bring her "vagina" in contact with his "penis", allowing the male to transfer his sperm. In some species, the pair will remain in this wheel position for only a minute. Others, however, may stay in formation for several hours, while the male tries to use spoon-like structures on his penis to scoop out any sperm from other males the female may already have in her. After copulation, the male may immediately release his mate and fly away, or he may follow her around to guard her from other males while she lays her eggs in water. In some species, the pair will stay in tandem during the whole egg-laying process.



Image: <u>Dragonflies Mating</u>
Westend61/Getty Images

The beautiful heart-shaped "wheel" formation of mating pairs.

Further Information:

- <u>Dragonflies and Damselflies of the East</u> by Dennis Paulson
- A Field Guide to Dragonflies and Damselflies of Algonquin Provincial Park and the Surrounding Area by Colin D. Jones, Andrea Kingley, Peter Burke and Matt Holder



Garden Inspiration!

'Orange' you excited to see insects thriving in our neighbourhoods? We sure are!











1. Question Mark Butterfly (*Polygonia interrogationis*). Jenn Dittrich **2.** Grasshopper Bee Fly (*Systoechus vulgaris*). Giuliana Casimirri **3.** Grape Vine Beetle (*Pelidnota punctata*). Krista Elvey **4.** Silvery Checkerspot Butterfly (*Chlosyne nycteis*). Morag Johnston **5.** Woodland Lucy, or Black Firefly (*Lucidota atra*) (likely male). Kathleen Terry

Garden Inspiration!

Beauty is in the eye of the bee-holder











6. Metallic Green Sweat Bee (*Agapostemon*). Janet Mackey7. Hoverfly (*Syrphid*). Janet Mackey.

- 8. Silver Spotted Skipper (*Epargyreus clarus*). Janet Pakiak
- 9. European skipper (*Thymelicus lineola*). Morag Johnston
- **10.** Moth of the genus *Amblypitiliaon*. Patty King

Thanks to everyone who took the time to send in these wonderful photos. Isn't nature amazing?

What's Growing On?



Garden Journeys and Monarch Awards

These FREE summer events are happening in the City of Hamilton including:

Ancaster, Dundas, Flamborough, Glanbrook, Stoney Creek & Waterdown!





All visitors welcome! Plan your journey to be inspired by 41 gardens! Garden descriptions and addresses HERE!



FOR EVERYONE INTERESTED IN ECO-FRIENDLY, SUSTAINABLE GARDENS!

- Tour Native Plant Gardens
- See Biodiversity in Action
- Get Inspired by Local Gardeners
 - FREE No Ticket Required!
- Scan QR or Visit Site for Information
 - In the City of Hamilton
- Mark your calendars for two weekends of inspiring garden tours:

August 8–10 and August 15–17, 2025

Garden Journeys





The Monarch Award Team is off to the races...or more accurately to visit 38 gardens across Hamilton.



The gardens will be assessed for the biodiversity and eco friendly gardening practices evident in front yards. Every gardener will be recognized for progress on their journey to creating a haven for nature. Visits to the gardens will be taking place during July and August. Good Start, Caterpillar, Chrysalis and Monarch Awards will be announced in September.

THANK YOU FOR APPLYING!

We truly appreciate the time and effort you put into growing gardens that support biodiversity. Every garden helps build a healthier community, and we celebrate everything you're doing!

Key Dates:

- July 15 Garden Visits Begin
- September 1 Garden Visits End
- September 20 Monarch Awards Recipients Announced
- October 15 Wrap-up Celebration for the 2025 Monarch Awards

Let's show our city how green — and wildly alive our gardens can be.

Media Contacts: Janet Mackey, Pam MacDonald Co-Chairs of the Halton Region Monarch Awards Questions? Contact: monarchawards.hmg@gmail.com

By Trish Moraghan, Halton Master Gardener Growing Gn 7







What's Growing On?





Gardens galore and so much more!





Learn more here





Garden Advice Clinics at Farmers' Markets

Stop by our advice table with your gardening questions



Dundas

Hamilton streets streets

August 14 and 28 12 to 4 PM

August 2nd 9AM to Noon

Learn more here

Learn more here

About Our Newsletter

Cross Pollination is published monthly from February to December and is written and prepared by our dedicated volunteers. Halton Master Gardeners are experienced gardeners who have studied horticulture extensively and continue to upgrade their skills through technical training. We strive to provide science-based, sustainable gardening information to the general public. The information in our newsletter has been verified by our volunteers to the best of our abilities, but given the scope of horticulture and science some concepts may not reflect current knowledge. The content displayed in our newsletter is the intellectual property of Halton Region Master Gardeners and their authors. It can be shared in its entirety, but specific content should not be reused, republished or reprinted without the author's consent.

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> > Your donations support our work!