CROSS POLLINATION

Halton Master Gardeners Monthly Newsletter DECEMBER 2023 | VOL. 16 ISSUE 11

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By Pam MacDonald, Halton Master Gardener

There are eight species of *Cornus* (dogwood) native to Ontario. All of them are beautiful, sporting various shaped inflorescences of white flowers from spring to summer, plump berries from summer to fall, and a panoply of colourful foliage when temperatures drop. It is only *Cornus sericea*, with its deep red osiers (pliable twigs) and white berries that persist into winter that is ornamental in all seasons.

Coming across a stand of birch and red osier on a bright winter's day in an Ontario woodland can stop you in your tracks. The red stems glow against white snow and the bark of the trees.

You can recreate this effect by planting a birch along with three to five red osier dogwoods. Underplant with compatible spring ephemerals such as bloodroot, *Hepatica* spp., trout lily, and large trilliums and you will have a delicate floral display from as early as April until June, when the red osier starts to bloom. Add water, leave the leaves in the fall and you have all the ingredients for a habitat for a variety of *lepidoptera*, bees, birds, and insects.



Image: Jim RobbinsCC BY-NC-ND 4.0

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RED OSIER DOGWOOD (CORNUS SERICEA) (CONT'D)

Red osier dogwood provides pollen and nectar for longand short-tongued bees, wasps, flies, and butterflies. At least four species of mining bees are dogwood specialists and it is the host plant for the spring azure butterfly. Ninety-five species of migrating and non migrating birds eat the nutritious berries; caterpillars and other insects attract breeding and insectivorous birds.



The white drupes of red osier dogwood are an important and nutritious food source for many birds.



More sun equals more flowers and berries. Pruning will encourage new growth and red twigs.



Dogwoods offer valuable pollen and nectar resources for native insects.

Cornus sericea is found throughout Ontario and across a large swath of North America. It grows in part shade to full sun, though more sun results in more flowers and berries. Throughout its range it is most abundant in moist to wet, well drained soils. However, it is also found in drier forests and woodlands.

These shrubs, which can grow as tall as eight to ten feet, respond well to pruning. In late winter or early spring remove up to one third of the oldest, tallest stems by cutting them out at the base of the plant. This will encourage growth of new colourful twigs from the roots. If needed, an older plant can be rejuvenated by cutting all stems back to about 18 inches from the ground.



Red osier dogwood grown as a 'living fence'

'Red twig dogwood' is used to describe both native red osier dogwood and the Asian Tartarian dogwood (*Cornus alba*). Native red osier stems are red all year long, whereas Tatarian dogwood has green stems with a tinge of red during the growing season but the stems turn blood red in the winter. Ensure you are planting our native Ontario red osier dogwood by checking the botanical name and purchasing your plants from a reputable local native plant nursery.

For more information:

- <u>Credit Valley Conservation Authority</u> 'Plant List: Woodland Plants for Landscaping'
- Birds Attracted to Red-Twig Dogwood
- Mining Bees Found on Dogwood. Vermont Atlas of Life
- Red Osier Dogwood: a perfect four season native shrub
- Native Plant Nurseries Southern Ontario



DECEMBER GARDEN 'TO DO' LIST

By Claudette Sims, Halton Master Gardener

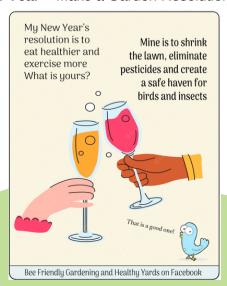
Winter decorations – Chose decorative greenery wisely. Do not use invasive plants found in the wild as that can further spread them. Common invasive plants to avoid: invasive grasses like miscanthus and phragmites; stems with berries like invasive honeysuckles and multiflora rose. Source greenery from stores, neighbours or friends as harvesting from the wild is not sustainable.

Trees – Make sure young trees and shrubs are protected from rabbits. Use tree wraps or wire baskets placed over smaller plants. Plan major tree or shrub pruning now while branches are bare.

Houseplants – Check weekly for disease or pests. Remove dead or dying foliage. Make sure you check the soil before watering.

Amaryllis – pot up your amaryllis. 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 indoor potting mix and 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, avoiding water on the neck of the bulb.

→ New Year – Make a Garden Resolution!



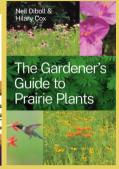
6 Give the gift of reading to a gardening friend or favourite child!



Click on each book to learn more



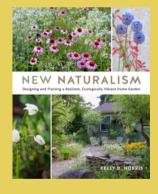


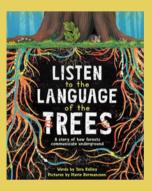












Lawn – If you still have leaves on your lawn, rake them into the garden (or bag/compost to store for spring mulching) when the weather permits. Avoid walking on lawn if soil is soft and leaves footprints.

Food Crops – Cover carrots, parsnips and newly planted garlic with straw to harvest in the spring. Collect rose hips and hawthorns for jelly or tea.

■ **Bulbs** – Get those bulbs in the ground before it freezes!

Check out our November <u>newsletter</u> for any garden jobs that you may have missed.

Travels through Australia and New Zealand

By Hariette Henry, Halton Master Gardener

Recently my husband and I visited
Australia and New Zealand. In the
months leading up to our trip we were
keen to discover as much as we could
about the region, including what we have
in common. We learned that we all have
Indigenous peoples, making up 3.8

percent of Australia's population, 5% of Canada's and 16.5% of New Zealand's. Both Canada and New Zealand have two official languages, English and French (Canada) and English and Māori (New Zealand). Finally, we share a colonial past which

has had impacts on us all.

The national park system in Australia not only provides areas for recreational use but also plays a role in biodiversity preservation. One of the first places we visited in the state of Victoria, south of Melbourne was the **Great Otway National** Park. The rich soils and high rainfall of this park support some of Victoria's tallest mountain ash forests, Eucalyptus regnans (+75 M tall). These forests have been subject to decades of intensive clear-fell logging.



Mountain ash, forests, taller trees can still be found in Tasmania

The loss of much of the old growth forests has had severe impacts on endemic marsupial species like Leadbeater's possum, the southern glider and the yellow-bellied glider. They must have nesting hollows to survive, and these hollows only form when large old trees, like mature mountain ash, lose limbs. Though commercial logging in the Otway ended in 2002, the young trees that now dominate the forest will take time to mature and form the hollows that these animals need to survive. Conservationists are working on strategies such as installing artificial hollows or nest boxes, designed to suit and protect these animals.

The park also has areas of mixed forest, secluded fern gullies and beautiful heathlands where they support a host of wildflowers and threatened species.

Included in the park's 1,388 recorded types of plants are 97 rare and threatened species, such as wrinkled buttons (*Leiocarpa gatesii*), Anglesea grevillea (*Grevillea infecunda*), and spiral sun-orchid (*Thelymitra matthewsii*).



A fern gully, the platform exists to protect the plants



Many of these beautiful heathlands were seriously threatened by bush fires of 2019/20

TRAVELS THROUGH AUSTRALIA AND NEW ZEALAND (CONT'D)

Flinders Chase National Park, which we also visited, is situated on Kangaroo Island south of Adelaide in the state of South Australia. The park covers more than 326 square km which is about half the size of the island. The rest is made up of agricultural industries. The Government of South Australia tightly controls what can and cannot be brought onto the island, including plants, fruits, vegetables and bees, in an effort to deter harmful pathogens and pests.

Some things do slip through the cracks in spite of the hygiene stations installed in the park. These are meant to protect native, endemic plants like yakka bush (*Xanthorrhoea semiplana*), from pathogens such as dieback, *Phytophthora cinnamomi*.



Park visitors are encouraged to do their part in protecting the plants

The yakka begins as a crown of rigid grass-like leaves, then develops a stem that grows beneath. Flowering occurs from spring to autumn and the flowers appear on a long spike called a scape. These plants are extremely slow growing and can live for hundreds of years. It takes only weeks for them to die from this disease. They are also a critical species on the island as they are one of the first plants to flower after a bushfire, thus ensuring regeneration and a food supply for insects and birds.



A juvenile Yakka Bush

We arrived in Sydney while the jacaranda trees (*Jacaranda mimosifolia*) were in bloom. These trees can be found all over the city. They are gorgeous and very hardy, and require little maintenance once established. Unfortunately, they are native to Brazil and do not contribute to the native ecosystem. Most commercially available jacaranda are grafted plants that assure a specific flower colour



Jacaranda trees found in First Fleet Park, Sydney

Continued on next page

TRAVELS THROUGH AUSTRALIA AND NEW ZEALAND (CONT'D)

Our next port of call was Queenstown, New Zealand where we made our way along the shores of Lake Wakatipu and were introduced to some edible and medicinal plants used by Māori and European settlers. Queenstown is a bustling tourist hub with a fluctuating seasonal population. It reminded us of Jasper and Banff because of the breathtaking scenery and many high energy activities available for locals and tourists.

The tour began in the native shrub and beech forests surrounding the lake and ended with a steep climb to a lookout with magnificent views of the Remarkables and Cecil Peak. Beech forests are the largest indigenous forest type in New Zealand. Beech trees (*Nothofagus cliffortioides*) seed every 4-5 years and occasionally widespread seeding or masting occurs. This can lead to a dramatic rise in the rat populations (escaped, invasive species coming off the ships of European explorers). These predators then turn to native NZ birds like Piwakawaka or Tui when the seeds disappear. We saw a variety of traps in the forest understory during our walk meant to help manage the mice, rats and rabbits.



Traps are used to control rats, stoats and possums. It is a-landscapescale pest control programme called "Battle for our birds"

We also saw some very unique and interesting tree species such as Tree Fuchsias or koyukutuku. Most native plants in NZ produce small inconspicuous flowers but the tree fuchsia produces a stunning purple flower with blue pollen. The edible and quite delicious purple berry of the Tree Fuchsia tastes like a tamarillo and even has its own name in Maori – konini. Konini berries were appreciated by European settlers who made them into jams. The berry was also used to make purple dyes and inks and young Māori girls used the blue pollen as makeup covering their lips.



The very odd looking tree fuchsia and its beautiful flowers

TRAVELS THROUGH AUSTRALIA AND NEW ZEALAND (CONT'D)

Another unusual plant we saw in the forest near Lake Wakatipu is Lancewood. Pseudopanax crassifolius. It is a small tree with two distinct growth forms. The juvenile stage which may last for 10 to 20 years has long, narrow, thorny leaves which droop downwards from an unbranched stem. Later the stem thickens and forms branches, while the leaves become shorter, broader and softer, and assume a more horizontal orientation. One theory for the lancewood's radical growth pattern is that it evolved as a defence against moa, the now extinct land birds which were once the dominant herbivores across NZ. The hypothesis is that as the Lancewood tree grew a longer trunk its leaves and stems no longer needed to repel the Moa's browsing. The purplish-black fruits are important food sources for birds such as tui and kereru. Māori used the sturdy trunks to construct spears for hunting and as walking sticks.





The bottom right hand side of the photo shows the shrubby form of this plant. As the plant matures the stem grows taller and the leaves become more horizontal. At left is the Moa. Thought to have become extinct 600 years ago as a result of hunting by humans and changes to their habiat.

The final destination on our trip was Auckland, New Zealand's largest city. We had mentioned that we were interested in seeing native plants and our guide took us to a Kauri Forest. Agathis australis, commonly known by its Māori name Kauri, is a coniferous tree in the family Araucariaceae, found in the northern regions of NZ's North Island. It is the largest but not the tallest species of tree in New Zealand, standing up to 50 metres high. Like the mountain ash in Australia, heavy logging considerably decreased the number of kauri trees and they are an endangered species today. New Zealanders are making serious efforts to restore the species, however they face challenges from threats such as Phytophthora agathidicida (kauri dieback), just as the mountain ash has in Australia.



The mighty Kauri! Its timber was not the only resource Kauri had to offer. Fossilized gum found beneath swamps and bogs could be used as varnish and became NZ's biggest export between 1850 and 1900.

Compared with other nations, Australia and New Zealand have an abundance of endemic flora. Many of these unique plants, are at risk from threats like habitat loss and fragmentation, invasive species, grazing and misuse of fire, to name a few. To better understand the issues, view Biodiversity: Science and Solutions for Australia from Australia's National Science Agency. Another excellent resource is the Meaning of Trees, Robert Vennel- available through Amazon.ca

Houseplants—Finding your Indoor Green Thum

by Claudette Sims, Halton Master Gardener

There may be snow and ice outside, but that does not mean gardening season is over. For me, houseplants are essential companions that bring life and beauty to my home and prolong the gardening season into spring. Caring for my plants gives me a sense of peace and achievement-especially when I'm successful!

Houseplant success depends on several factors: plant selection, lighting conditions, humidity, temperature, watering practices, as well as pest and disease management. Watering seems to be one of the most challenging things about houseplant care so let's talk about watering this month.



Houseplants extend your gardening season and bring nature into your home.

Overwatering and underwatering can result in similar problems such as wilting, yellow leaves or brown leaf edges. If the yellowed leaves are older, near the bottom of the plant, the issue is more likely underwatering. If new leaves turn yellow, it is more likely to be overwatering. Brown leaves that are limp may be due to overwatering while brown leaves which are crispier may be from underwatering. Soft mushy stems are almost always the result of overwatering. Keep in mind that it may be normal for some plants to shed leaves periodically throughout the winter.



Individual plants have differing water requirements, so it is essential to begin by researching the needs of your specific houseplants. Snake plants (*Sansevieria* spp.) are very forgiving and can go several weeks without watering. Rex begonias prefer soil on the dry side, but will wilt when it becomes too dry and have outright died on me when I overwatered them. Spider plants prefer an even amount of moisture. If their leaves turn brown and crispy at the tips, it's usually a sign that the soil has been too dry.



Rex begonias prefer higher humidity, but do not like wet soil.

Some watering basics:

- Make sure the soil level is a few cm below the lip of the pot to allow room to water.
- Use room temperature water.
- As a general rule, allow the top of the soil to dry out before watering. For larger plants, this can mean the top 2-4 cm and for smaller pots it could be less.
- While it's possible to grow plants in containers without drainage holes, it is much easier if excess water can drain out the bottom.

HOUSEPLANTS—FINDING YOUR INDOOR GREEN THUMB (CON'T)

- Add saucers or decorative containers to catch water. But don't allow the pot to sit in water, as this can lead to root rot.
- Fertilizer can be added to the water, but is only needed when plants are actively growing. Start fertilizing when days get longer and plants are putting out new leaves or shoots.

When and how to water?

Watering earlier in the day is preferable because it allows the water to evaporate. If you water at night, the soil tends to stay moist and can encourage rot, fungus or disease. Some plants do not like water on their leaves, so a watering can with a long spout allows you to water at soil level, avoiding the leaves. Watering the 'crowns' of plants like African violets and primrose can cause permanent leaf spotting or even lead to rot. Placing those plants in a deeper saucer and watering from the bottom may avoid problems with these sensitive plants.

Always use *room temperature* water for your plants. Filling a container the day before will ensure that you always have the correct temperature. While some growers may suggest using ice cubes for orchids, this practice doesn't make sense—there is no ice in the tropical forest! Ice can damage the roots of orchids and cause rot.



Using the *volume* of three ice cubes of water, is a suitable option and may help new gardeners to gauge water amounts for their orchids.



Watering African violets from the bottom will avoid getting water on the leaves or crown.

How often do I need to water?

Some gardeners like watering on a schedule. e.g., every week/2 weeks/5 days. This can be a good option for some plants, but it may not account for variations in light, humidity and evaporation of water left in the soil from the last watering. Clay pots tend to allow water to evaporate, while plastic pots tend to keep moisture in.

Always test *before* watering each plant. There are various of ways of doing this:

- Lift the pot and consider its weight. If it feels 'light' for its size, the plant likely needs watering. If the pot feels 'heavy' for its size, wait and retest in a few days.
- Touch the surface of the soil with a dry finger. If the soil feels dry and hard, you can water it. If it feels cool and moist and/or looks dark, wait a hit
- If the soil has shrunk back from the sides of the pot, that is usually a sign the pot is very underwatered.
- Phalaenopsis orchids: If your orchids are in clear pots, check the colour of the roots. If roots are bright green, they don't need watering. If the roots are grey and the growing medium feels dry, it's time to water.

It should be noted that plant <u>moisture meters</u> are not very dependable. *You* are a much better gauge of when to water using the above techniques.

HOUSEPLANTS—FINDING YOUR INDOOR GREEN THUMB (CON'T)

How much do I water?

This depends on the plant, the growing medium and the size and type of pot. For some plants, you can water until the water drains out of the bottom of the pot into the saucer. However, this may not be very practical or even advisable for large tropical plants. It may be helpful to consider the volume of the pot. As a general rule, you can water using from 1/4 to 1/3 the volume of the pot.



Compare the grey roots of this orchid (left), before watering and how they greened up after watering.

Avoiding waterlogged roots

If you use a decorative outer pot, check the bottom and pour out any excess water *before* returning your plant to it. Lifting the pot up away from the decorative container so it does not sit directly on the bottom can also help your plant to drain better. Simply place a cap or lid of similar diameter upside down in the bottom of the decorative pot. The cap will keep the plant above the bottom so that it doesn't sit in water.



As you become more familiar with your plants, your watering skills will improve. Just remember, each plant has its unique needs, so pay attention to their cues and enjoy the journey of nurturing these green companions and developing your own green thumb.







Growing Communities: Exploring Seed Libraries & Exchanges

by Janet Mackey, Halton Master Gardener

What are they?

- · Members of the local community share extra seed that was either purchased or gathered from their garden in a small, home-based 'seed library' or through larger centres, including:
 - Public gardens
 - Libraries
 - Environmental organizations.
- Seed libraries provide the opportunity to:
 - Exchange knowledge and skills
 - Strengthen food security
 - · Contribute environmental benefits (pollinator/wildlife gardens)



Seed are organized into file drawers at the RBG seed library

How do they work?

- Individuals can visit the library to obtain seeds for their use, at no cost, with the understanding that some seed from the individual's garden will be offered to the seed library at a future date.
- Some seed libraries are accessible year round while others are only available prior to, or during the growing People Saving Seeds and Pollinators season, i.e., March to September.
- The variety of seeds available varies. Some seed lists for large organizations are available online.

















Explore Canada's Seed and Garden Heritage

SHARE • BORROW • DONATE



Seed Library at Green Venture - EcoHouse in Hamilton

Seed Libraries in the Halton / Hamilton Region

- Burlington Public Library Seed Library
- Green Venture Eco House
- Hamilton Public Library
 - Barton Street Branch
 - Westdale
- Halton Hills Public Library Seed Library
- Milton Public Library Seed Library
- Oakville Public Library Seed Library
- · Royal Botanical Gardens opens online mid-Jan. Limit of 5 species - mainly native plants
- Seeds of Diversity

Make Your Own Seed Library

Visit GARDEN THERAPY: How to Make a Seed Library in Your community

Members of Seeds of Diversity save seeds for many reasons.





By Hariette Henry, Halton Master Gardener

There are a few wild animals that are common nocturnal visitors to our yards and these animals are usually looking for food and shelter. Spring and fall are when most of these visits and subsequent lawn damage takes place, as these animals are trying to pick up extra calories to get through the winter and/or recover from it. Skunks, racoons or moles are the most likely culprits and all three feed on earthworms, grubs, slugs and a variety of soil insects.

The first step in <u>determining which critter</u> is causing the problem is to examine the type of damage that has been done. Skunks are nocturnal feeders that create holes in the ground, surrounded by a ring of loosened soil. The skunk presses its nose to the soil and digs with its long, front claws. There can be so many holes that they coalesce into an area that looks like it has been tilled. Raccoons, on the other hand, love to use their front paws like hands to pull and flip pieces of sod over, exposing the tasty grubs, earthworms and insects below. If you've ever laid fresh sod then you've probably had the experience of finding the upside-down patches left for you to find the next morning.

Moles are small rodent-like mammals that are secretive and solitary. They are specially

adapted for life underground. They have velvety fur and tiny eyes and ears. Their bodies are compact and narrow and they have large claws on the toes of their powerful front feet. They show clear signs of their activity via the raised earth tunnels and mounds (molehills) that they build in lawns, gardens and fields. As they are reclusive it is likely that only one or two moles are responsible for the damage to your lawn.

CC Something is burrowing/digging in my lawn? Any ideas what it could be?



Image: DaphneTomaszewski

The trenches and mounds of soil in your photo suggests that you have a mole problem. The following are some <u>recommendations for preventing/managing this problem</u> without opting for more extreme measures such as traps or baits.

- Minimizing the risk of grub infestation will make your lawn less attractive to moles.
- The damage to your lawn is likely only cosmetic. Turf can be easily repaired when you overseed and top dress your lawn in the spring.
- Moles play a beneficial role in the management of undesirable grubs, slugs, beetles and beetle larvae. They also aerate the soil, making for better drainage and improving access to nutrients.
- It is impossible to remove all moles from the garden. Even if you are successful in driving some away, new individuals will move into the vacant territory.
- Mole damage to tubers and the roots of trees or shrubs is most likely incidental.
- Mole activity peaks in spring and fall. Knowing that activity will decline may make it easier to tolerate damage.
- The eastern mole is a species of "special concern", which means that it is not endangered or threatened at present, but it may become so.



Garden Inspiration! Winter Protection for Plants









- of newly planted trees from:
- browsing by animals
- sunscald (up to 5 years)

REMOVE EACH SPRING!



PROTECT BUDS

of less hardy shrubs (i.e., some roses and big leaf hydrangeas/ mophead/macrophylla)



WATER

newly planted trees until freeze-up



ONLY COVER EVERGREENS WITH A FRAME IF:

trees are exposed to salt or severe weather.

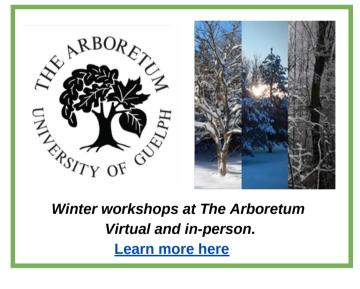




wrapping shrubs as they can provide winter protection for wildlife

Ellhotts Growing On? By Trish Moraghan, Halton Master Gardener















Network with the community and learn more about urban gardening with a sustainable focus in a friendly space

Bi-Weekly, hybrid meetings (some meetings in downtown Hamilton, others online)

Learn more here



What's Growing On?





Home Activities



Winter Wonders



Train Display



Winter Camp



See you in February 2024!

A big thank you to all our volunteers for the countless hours they put into making this newsletter possible.

A reminder that there is no Cross Pollination in January. The bees, the butterflies, wasps and our volunteers are taking a break!

Our wishes for a Happy New Year!

Anyone who thinks that gardening begins in the spring and ends in the fall is missing the best part of the whole year. For gardening begins in January with the dream.

-Josephine Nuese



Canadian Horticultural Therapy Association

Established in 1987 with a network across Canada

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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