

# Cross Pollination

Newsletter of the Halton Master Gardeners

## November Garden To Do List



November  
2018

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Panicum virgatum 'Shenandoah'  
(Shenandoah Switch Grass))

- ❑ **GRASSES & PERENNIALS** - Good reasons to leave the stems and seed heads on your perennials 1. shelter for beneficial insects 2. seed heads for birds 3. winter interest 4. insulation - stems collect snow & protect your plants!
- ❑ **BULBS** - Continue to plant spring flowering bulbs such as crocus, tulip, hyacinth & daffodil until just before freeze up of soil. Water bulbs after planting.
- ❑ **TREES** - Continue watering trees and shrubs until the ground freezes, especially if planted this year. Wrap screening around fruit tree trunks to protect from small animals.

- ❑ **MILKWEED** - collect seeds for winter sowing. Learn how [here](#).
- ❑ **FEED THE SOIL!** - Empty your compost bin into gardens and cover bare soil with organic matter such as compost, leaves, straw, mulch or manure.
- ❑ **HOUSEPLANTS** - Place plants in sunnier windows and decrease watering as the days become shorter. Prune as needed. Increase humidity by misting plants a few times a week. Check for pests weekly.
- ❑ **GARDEN PONDS** - Remove any leaves in pond with a bamboo rake or net. Decaying leaves left in the pond over the winter will affect water quality and harm fish. Remove, clean and store pumps as needed.
- ❑ **BIRDS** - Clean and disinfect bird feeders and bird baths to keep birds healthy.
- ❑ **LAWN** - A few leaves on lawn? Simply mow & mulch and leave in place. Lots of leaves covering the lawn? Rake or mow leaves (with grass catcher attached) and remove to garden beds or bags for use in spring.
- ❑ **WEED WATCH** - Hand pull, rake or cut off at ground level with a sharp spade or garden tool. Remove seed heads to reduce seed bank in your soil.
- ❑ **TURN OFF** outside water connections and remove hoses. Hang garden hoses to drain before storage.
- ❑ **CLEAN** fallen leaves in downspouts and gutters.



She stands  
In tattered gold  
Tossing bits of amber  
And jade, jewels of a year grown old:  
November.



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## Adding Biodiversity In Your Garden

by Hariette Henry M.G.I.T.

Gardens have evolved over the centuries to reflect the needs and aspirations of the people who created them. In our own era our gardens reflect our personalities, our tastes and the way we view the world. Climate change and the loss of habitat are issues we face as a planet, and it is clear that the decisions we make in our natural world now will have an impact on our futures.

Gardeners, home owners and many citizens have become aware of the need for greater biodiversity in our environment. “Three quarters of the worlds’ plants need pollinator help to reproduce and a third of every bite of food we take comes via the work of a pollinator; most often a bee.”

Unfortunately, bee populations are declining at an alarming rate ([US May 2015 “National Strategy to Promote the Health of Honeybees and Other Pollinators.”](#) ). There is a trend towards removing lawns, adding plants on road allowances and planting natives exclusively. For some, these are *no-brainers*. For others, it is difficult to imagine giving up their lawns, peonies and hydrangeas. I believe there is a middle ground that we can follow and all feel comfortable with. What’s most important is that we make an effort to do our part. A noted entomologist from Penn State’s Center for Pollinator Research, Dr. Harland Patch said “What we really need to do is change our perception of a landscape, to think of it as something dynamic that attracts birds and butterflies and pollinators and that it’s not just something to look at.” If we see the process of adding biodiversity to our gardens as incremental, easy and beneficial, we can begin to enjoy the benefits of adding beauty to our gardens as well as healing the planet and preserving it for future generations.



*The Wise Owl - A wise owl lived in an oak. The more he saw, the less he spoke. The less he spoke, the more he heard. Why can't we all be like that wise old bird?*

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Adding Biodiversity In Your Garden - cont'd

Adding native plants is not the only strategy for increasing biodiversity though it is a key one. As a group, natives have evolved with native pollinators and they are generally more effective at attracting them. Which natives should you add might you ask? You can look at a list of what's recommended and available in your region ([Halton Region](#) and [CarolinianCanada.org](#) can provide some help) and choose what you like or (even better) you could approach the question by asking which pollinators you want to help. Some pollinators are "generalist" that will feed on a variety of nectars and pollens while others are "specialists" that need one particular species - either for feeding or for hosting their eggs. The monarch is the best known example of the latter, needing the milkweeds to foster its larvae.



In terms of having a list of top pollinator attracting plants to choose from, some interesting research has been conducted in the US by the Centre for Pollinator Research at Penn State's, College for Agricultural Sciences. Over a three year study they have been able to rank native species as well as cultivars by their ability to attract pollinators. In some cases the cultivars out-performed the natives, see details ([Penn State - Bees, buds & blooms trial](#)). A few points to remember about adding natives: planting in **floral clumps** is a *pollinator-friendly* move, in other words, it is better to have five or more plants of one species rather than one of a lot of different species (see planting plan on Page 7). We should be trying to make the job of pollinators easier as it is estimated that bees need to visit 75 flowers to have enough pollen to lay a single egg. It also helps insects visually see the plants better if they are in a larger clump.

Having continuous blooms over the entire season is also important, as pollinators don't take time off. Finally, avoiding the use of pesticides as well as eliminating invasive species is highly recommended.

In addition to providing plants as food and shelter for pollinators, water is an essential resource, not only for pollinators but also for migrating birds. Water, especially running or bubbling water is very attractive to birds and other wildlife. Also, a water garden can provide a habitat for a whole new palate of plants that will attract a whole range of aquatic wildlife, such as frogs, dragonflies and fish.



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### Adding Biodiversity In Your Garden - cont'd

Habitat can be created by adding logs, rock piles and preserving snags (a dead tree). Adding these elements to a garden can encourage beneficial snakes and toads to set up home or it could be a home for a family of chipmunks. When not in danger of causing harm to buildings or humans, a snag can be retained and preserved as a home for woodpeckers and other creatures that live in dead and dying trees. It is also a good perch for hawks and owls. Don't just cut down a tree because it is dead, evaluate its potential use or danger first. If it is far from causing any damage to buildings or people, why not leave it standing for wildlife.

Adding a birdhouse, bat house or native pollinator house is also an option. You can help attract birds, bats and pollinators to your garden by providing them good homes. Many plans are available online or through retailer's such as [Wild Birds Unlimited](#) who have many options for sale.



These are opportunities we can incorporate into our gardens to a level that we are comfortable with. Home gardeners are certainly very important in the battle to preserve biodiversity. In fact as Dr. Douglas Tallamy, Entomology professor at the University of Delaware and author of "[Bringing Nature Home](#)" has been saying for years, "Urban and suburban landscapes are the new refuge for pollinators." "Every little pollinator-friendly planting in every little yard can add up to a big difference."

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<https://caroliniancanada.ca/guide/article/plantingwithpurpose-20161004>

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<http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardener/advice-tips-resources/visual-guides/adding-biodiversity-to-your-garden.aspx>

Photo from: [ecologicalgardendesign.com](http://ecologicalgardendesign.com)



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**Question: Where do apples love to vacation?**  
**Answer: Fugi**



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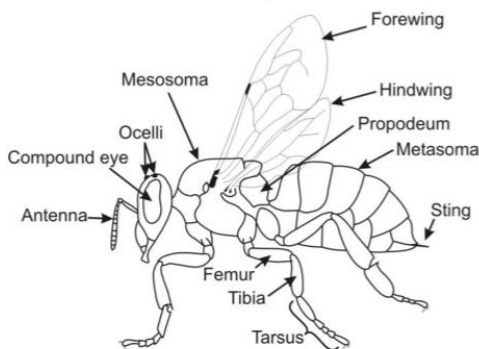
### What's the Buzz in the Garden



by Walter DeJong M.G.I.T.

Buzzing among the biodiversity of our landscapes, are nature's gardeners - **the bee**. In fact, the development of flowering plants (angiosperms) was catalyzed by the co-evolution of bees. Understanding their important pollinator attributes, unique physical characteristics, social behaviour, and modern challenges can help us understand how to implement bee friendly environments that maximize our gardens.

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General Structure of a bee from the Newfoundland & Labrador Beekeepers Association:

<http://nlbeekeeping.ca>

According to the provincial government, there are over 700 native species of pollinators including butterflies, moths, wasps, flies, beetles, hummingbirds, and, of course, bees. Bees are the most common pollinators with over 800 native and non-native species in Canada, with 350 native and non-native species in the Toronto area alone. The dominance of bees as pollinators make them essential for preserving our ecosystems

### What makes a bee a bee?

It is a harder question than you might think. Bees descend from wasps, and some flies mimic the appearance of bees to stave away predators. However, bees tend to be known as excellent pollinators that have hairs (known as scopa) that can carry loads of pollen on their legs or underside. Usually, bees have two sets of wings (differing from flies), and feed off pollen (differing from wasps). However, with over 20,000 different species in the world, there are of course exceptions. For example, there are pollen wasps that feed their young strictly with pollen like bees, and there are some bees (like the cuckoo bee) that do not harvest pollen at all.

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*What did the bee say to the flower?  
Hello Honey!*





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### Social Life

The differences among bees extend to their social patterns. Contrary to popular assumption, most bees are solitary and do not live in socially complex hives. Solitary bees tend to have a ground nest where a single female bee will nest and lay eggs, but may have other solitary neighbors close by. Communal bees live a solitary lifestyle, but share an entrance to a greater structural nest.

The most complex social arrangements tend to be called eusocial colonies where there are hive responsibilities divided by specific divisions of labour around reproduction. As an example, there would be a queen bee that is responsible for laying eggs while the workers do nest construction, the foraging and the defence. Eusocial colonies are found among honey bees, bumble bees and many sweat bees.



This is a Rusty-patched bumble bee (*Bombus affinis*) which is listed as 'Endangered' in Ontario. For more information visit:

<https://www.ontario.ca/page/rusty-patched-bumble-bee>

### Decline

Whether today's bee nest in the ground or in a socially complex hive; recent evidence listed in the Ontario Pollinator Health Action Plan shows a declining health and population of bees. For instance, regarding the Ontario honeybee population, the period of 2010-2014 showed a 43% mortality rate in 2011, a 38% mortality rate in 2012, and a 58% mortality rate in 2013-2014.

Reasons for the loss of pollinator health are complex and can be attributed to their habitat, predators, climate change and pesticides. Neonicotinoids were evaluated by the Pest Management Regulatory Agency of Canada and concluded that the honey bee mortalities were a result of exposure to neonicotinoid insecticides. These findings have led to a review of neonicotinoid uses with a more precautionary public policy. Internationally, these findings have led to a two-year ban on neonicotinoids in the European Union implemented in 2013 which they have renewed currently based on their findings.



*When most insects are inactive due to cold temperatures bumblebees are able to fly by warming their flight muscles by shivering, enabling them to raise their body temperature as necessary for flight.* <http://pollinator.org/assets/generalFiles/Bumblebees.pdf>



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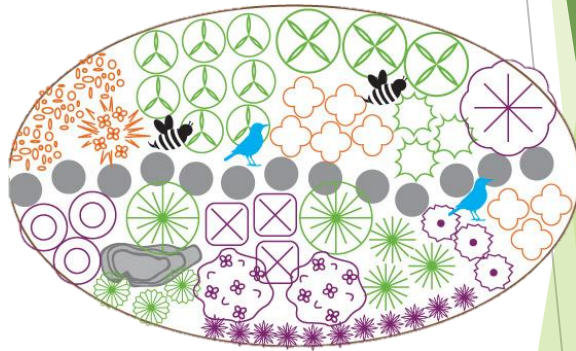
### What does this mean for us as gardeners?



Sweat bee *Agapostemon texanus*  
(Brampton Beekeepers Association:  
<http://bramptonbee.ca/identifyng-bees/>)

How do we implement strategies that strengthen our pollinators alongside our flowers? Fortunately, the Pollinator Health Action Plan has outlined several steps to point us in the right direction:

- Choose native Ontario plants to attract native pollinators
- Make a bee bath for thirsty bees by filling a bowl with large rocks and shallow water
- Select plants that bloom at different times from spring to fall to ensure that pollinators have food and adequate shelter throughout the growing season
- Plant flowers in clusters - creating clusters makes it easier for pollinators to find the flowers and improves the efficiency of pollination
- Eliminate or reduce the use of pesticides including pollinator attractive plants treated with systemic pesticides.
- Build a bee hotel for solitary bees. A simple bee hotel can be made out of hollow reeds or bamboo and a milk carton
- Attract a range of pollinators by planting flowers of different shapes and sizes (see [this guide](#) for examples)
- Create a window box with pollinator-friendly herbs in your backyard or apartment balcony
- Leave mulch-free space for ground-nesting bees
- Plant milkweed for monarch butterflies



This plan is for a pollinator garden in a sunny location. For more plans visit: [Guelph.ca - sample garden design](http://Guelph.ca - sample garden design)

Plan flowers to include nectar resources through Spring, Summer & Fall

**Native Species are best for bees!**



#### Spring

- Dogwood
- Serviceberry
- Wild geranium
- Viburnum
- Willow
- Violet

#### Summer

- Bergamot
- Button Bush
- Coneflower
- Milkweed
- Fleabane
- Yarrow

#### Fall

- Asters
- Goldenrod
- Black-eyed Susan
- False sunflower
- Great blue lobelia



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## What's Growing On?

Gardening Events We're Involved in

### Herbs:

*from the savoury to sensual...  
to deadly poison*

Monday, November 12, 2018 -  
7:30pm

Applewood Garden Club  
1513 Dixie Road, South  
Mississauga

### Garden Hacks

*Nifty Ideas to Make Your  
Gardening Easy & Fun!*

Wednesday, November 28, 2018  
7-8pm

Crown Point Garden Club

L.G. Wallace Funeral Home  
151 Ottawa St. North, Hamilton



## November Garden Quiz

1. Which tissue beneath the bark of trees forms wood?
2. Simon and Garfunkel asked: "Are you going to Scarborough Fair? --, --, -- and --."
3. Monarda gets this more familiar name from being used as a folk remedy for bee stings.

Answers on Page 9



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***When the going gets tough, the tough get growin'***



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## What's Growing On?

Gardening Events in the Community

### Amaolo Nature Sanctuary Outing

Discover the unique world of lichen and what it tells us about air quality as we compare rural & urban species

Saturday, November 10, 2018

10 am - 12:30 pm

Register at: [treespleasehamilton@gmail.com](mailto:treespleasehamilton@gmail.com)

905-549-0900

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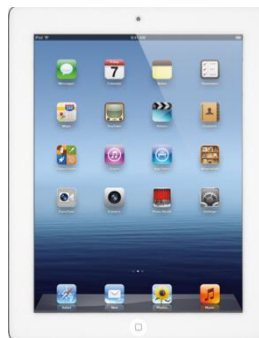
Do you have a gardening question?

email: [haltonmastergardeners@gmail.com](mailto:haltonmastergardeners@gmail.com)



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Garden Quiz Answers: 1. cambium 2. parsley, sage, rosemary & thyme. 3. Bee Balm



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