

With summer drawing to a close, the goldenrods and asters are in full bloom, and the fields are abuzz with the activities of numerous bees, flies, wasps, butterflies, and beetles. It is a good time to look for pollinators and watch them in action as they gather pollen and nectar for their last round of egg laying, to top up their winter stores, or in preparation of a long migration flight.

Many pollinators do not live through the winter as adults, and so this is also the time of year when many individuals and colonies start dying off. But their eggs and larvae will overwinter and make an appearance next spring. Interestingly, adults of some species do overwinter, such as honeybees, queen bumble bees, and mourning cloaks. They overwinter, respectively, as a tight colony of bees in a managed colony, alone in an underground burrow, or under a pile of leaf litter. Come spring, they will continue their life cycle.

St. John's School New Pollinator Garden

Students at St. John Catholic School, located on Victoria Road just north of Grange Rd in Guelph, were pleasantly surprised to return to school this September to a new pollinator-friendly garden and planters. With the encouragement of two parent volunteers, Pollination Guelph partnered with the City of Guelph's Healthy Landscape program to turn a patch of tired grass in the front yard into pollinator-friendly habitat. It is our hope that students, teachers, and members of the community will take note of it and use it as an example for their own properties to follow.



Installing a pollinator garden at St John school.

“Adopt-a-Tree” Program – a Partnership with the City of Guelph and the TD GreenStreets Program

The City of Guelph is a vibrant city with mature older neighborhoods, brand new neighborhoods, and varying aged neighborhoods in between. It is also a city that recognizes the need to increase its tree canopy. One way that it is attempting this is with the help of a TD GreenStreets Program grant. A preliminary canopy coverage assessment identified three neighbourhoods with low, medium or high canopy coverage to participate in the Adopt-a-Tree Program. Earlier this month, a door knocker was delivered to 500 residents in each of the identified neighbourhoods. A free tree was offered to the first 100 residents in each neighbourhood to register for the program.



Cherries are just one example of beneficial spring-flowering trees and shrubs.

As many trees and shrubs provide important early spring sources of pollen and nectar to pollinators, and act as a larval host for many butterflies and moths, as well as nesting or overwintering sites for many insects, Pollination Guelph is a partner and proud supporter of this program. If your household was not selected to participate in the program, we still encourage you to consider planting a tree or shrub this fall for pollinators. Species like serviceberries (*Amelanchier*), dogwoods (*Cornus*), cherries and plums (*Prunus*), apples (*Malus*), sumacs (*Rhus*), maples (*Acer*), ashes (*Fraxinus*), willows (*Salix*), and basswood (*Tilia*) are just a few examples of pollinator-friendly woody plants.

Native vs. Cultivar Study Underway at The Arboretum at the University of Guelph

In the Spring 2011 newsletter we mentioned that we provided funding to research the effects of native, non-native, and cultivar species on microclimate and pollinators. The project started this summer at The Arboretum at the University of Guelph, and the data on microclimate is now being analyzed while insects are being identified. We will feature the results in an upcoming newsletter when they are available.



Setting up the native vs. cultivar research study at The Arboretum.

Pollinator Day in the Garden a Success

Pollination Guelph held its annual Pollinator Day in the Garden at Riverside Park during International Pollinator Week this past June. There were live bumble bees to watch, caterpillars and chrysalis' to observe, bee nests to make, pollinator coloring sheets to fill out, crafts to make, field guides to read, and more. Thanks to everyone who stopped by for making this yet another successful event.



There was a lot to see and do at this year's Pollinator Day in the Garden event.

Pollination Guelph Survey– We Want to Hear From YOU

A survey was recently sent out to all members of our mailing list asking for feedback on a variety of topics. A series of 10 questions include how you learned about Pollination Guelph, if you have volunteered with us before, how you would like to volunteer with us, what you would like to get from us, and more.

Responses will be collected, and a brief report made in a future newsletter. If you did not receive the e-mail, visit <http://www.surveymonkey.com/s/ZSVKLWB> before October 24. Please take five minutes and fill it out today – your feedback is important to us.

Neat News, Upcoming Events, and Requests from Other Groups

The Transformation of Caterpillar to Chrysalis – On-Line Videos

Pollination Guelph board member Victoria MacPhail has been rearing monarchs and managed to catch the transformation of one caterpillar into its chrysalis on video. Watch the amazing transformation occur through the four clips below.

Clip 1/4: <http://www.youtube.com/watch?v=qmS7oBTBMVo>

Clip 2/4: <http://www.youtube.com/watch?v=ykzCw7UICpk>

Clip 3/4: <http://www.youtube.com/watch?v=k8sEdKi9Km4>

Clip 4/4: <http://www.youtube.com/watch?v=NxRv0YEMh2A>



A monarch caterpillar sheds its skin, revealing the chrysalis partially formed underneath.

"Bee Basics" Book Available for Free Download

A really good overview of bees (types of bees, life history, importance, etc.) designed for the general public, "Bee Basics – An Introduction to our Native Bees", is now available for free download at <http://pollinator.org/books.htm> (or direct link, <http://pollinator.org/PDFs/BeeBasicsBook.pdf>).

Audio Bee Booths – An Opportunity to See Inside a Bee Nest

Have you ever wondered what native bees and wasps sound or look like when they are inside those hollow stems? Artist Sarah Peebles and colleagues have created "Audio Bee Booths", which are amplified habitat installations that allow the public to view and listen to solitary-dwelling, native bees and wasps: pollinators that look and act very differently than honeybees do.



While one way to see inside a bee nest is to split the stem, a better way is to visit a bee booth.

Three of these booths are open to the public: 2 in Ontario (at the Tree Museum near Gravenhurst and at Greenway's Nature Centre in Waterloo) and 1 in Alberta (at the Calgary Zoo). You can visit these booths most days, free of charge, where there should be activity until the days get cold and the first frost sets in. To see a preview of what's inside a bee booth visit <http://resonatingbodies.wordpress.com/art/odes/>.

Are you a caterpillar that wants to deter bird predators from eating you? Try whistling!

A researcher from Carleton University has discovered that at least some caterpillars can whistle when attacked. A recent article in the Journal of Experimental Biology explains how the walnut sphinx caterpillar can blow air out of a certain pair of spiracles (part of a butterfly's body that it breathes through), making a whistling or squeaking sound. This causes yellow warblers, their natural predator, to abort their attack. Read the abstract at <http://jeb.biologists.org/content/214/1/30.short>; check out the "Supplementary Material" link to see videos of the caterpillar whistling and the warbler reacting.

Please note that this newsletter is intended for anyone interested in keeping up with the work of the Pollination Guelph board and volunteers. For more information, or to be added to our mailing list, contact pollinationguelph@gmail.com.

All photos © V. MacPhail, except those of the St. John school garden and the Native vs. Cultivar study, which are courtesy of K. McKeown.