

## Putting Your Garden to Bed the Pollinator-Friendly Way

Is the task of “garden clean-up” on your to-do list this fall? How would you like to shorten that list and do something for nature at the same time? Pollination Guelph has just produced a one-page handout with tips on topics such as Leave the Leaves, Broken Branches, Skip the Last Mow or Mow it High, Seeds and Stems for the Birds and Bees, and Composting Black Gold. Check it out on our web-site at [www.pollinationguelph.ca](http://www.pollinationguelph.ca).



*Placing a few branches along the edge of your property can provide habitat for many pollinators.*

## \$5,750 in New Grants for Pollination Guelph's Planting Projects

We are happy to announce that Pollination Guelph has been the recipient of several grants this fall. TD Friends of the Environment has given us \$2,000 and the Grand River Conservation Foundation has given us \$1,000 for our “Pollinator Habitat on the Trans Canada Trail in Guelph” project and the Guelph Community Foundation has given us \$2,750 for the “Hospice Wellington Pollinator Gardens” project. A big thank-you to these organizations for recognizing the value of the projects and for supporting our work; read-on for more details on how we have used these monies.



**TD Friends of the Environment Foundation**



## Update on Pollination Guelph's Fall 2012 Planting Projects

### *Pollinator Habitat on the Trans Canada Trail – Phase 2*

Despite a heavy frost, a group of volunteers showed up on October 13 to spread newspapers and three truck-loads of triple mix soil into a large triangular area along the Trans Canada Trail, just before Speedvale Avenue. Later, with the sun shining overhead, we planted several hundred shrubs and perennials. These will provide food and nesting sites for pollinators, as well as habitat for other wildlife. This section of the trail has hundreds of people walking, strolling, jogging and cycling past it every day, so it will be a great opportunity to educate others about pollination. As the plantings are along the Speed River corridor, there is also opportunity for pollinators to disperse from this site throughout the city and watershed. Thanks again to the TD Friends of the Environment and the Grand River Conservation Foundation for funding this project, the University of Guelph Plant Agriculture department for some of the perennials, and to all the volunteers. *Surrounding this paragraph are photos from the event showing the various stages of the planting event from obtaining plants through to planting them.*



### ***New Arbor at the Guelph Centre for Urban Organic Farming***

We have added pollinator-friendly hedgerows and gardens at the Guelph Centre for Urban Organic Farming (GCUOF) over the past two years, but have now added a new feature: an arbor. This structure, which includes a seat, will provide a shady place for people to gather to teach, to learn, to relax, and more, while native pollinator-friendly vines will be planted to grow up the sides and over the top. Thanks to volunteers from the University of Guelph and Pollination Guelph for helping with the hard labor, The Arboretum and GCUOF for the space, and the funders of our GCUOF work: Guelph Community Foundation, Trees for Guelph, and the Guelph Round Table of Environment, Economy and Society.



*A new arbor will add a focal point to the GCUOF gardens and provide a shady resting place for visitors.*

### ***Hospice Wellington Pollinator Gardens***

With funds from the Guelph Community Foundation, in-kind support from Manor Landscaping, and volunteers from Hospice Wellington and Pollination Guelph, we have successfully installed several new gardens at the Scottsdale – Kortright property. This is a great example of a relationship amongst property owners, landscapers, grantees, and groups like Pollination Guelph.



*Residents, visitors, and staff of Hospice Wellington can now enjoy the beauty of pollinator-friendly landscaping.*

### ***Eastview Landfill Pollinator Park***

After several years of delays, we have finally started work on the Eastview Pollinator Park with the preparation of a small section of land that is to be planted next year. This is a multi-step and multi-year project that will turn an old landfill into a pollinator haven; we will keep you informed as we make further progress in the coming years.

### **Mark Your Calendars – Pollination Guelph’s Annual Pollination Symposium April 6, 2013**

Our annual pollination symposium will be held on Saturday, April 6, 2013 at the Dublin St United Church in downtown Guelph. Additional details, including the registration cost, list of speakers and workshops, and theme of the new photo contest will be announced shortly, but save the date today!

### **Cambridge Pollinator Preserve Grand Opening**



After three years of work by volunteers with the Ancient Mariners Canoe Club, and with financial support from various organizations, the Cambridge Pollinator Preserve was officially opened on September 13. A former off-leash dog park along the Grand River in Cambridge’s, Riverbluffs Park is now 2.5 acres of pollinator-friendly habitat.



Three large interpretive signs form an Education Centre that aims to raise public awareness about the importance of insect pollinators to ecology and the food chain. Walkways through the area allow you to watch pollinators, and labels help you identify the species that were planted. For more information, visit <http://www.ancientmariners.ca/Initiatives.html>.

*Pollinators are already benefiting from the many flowers in the preserve.*

### **Monarch Conservation Talk by Dr. “Chip” Taylor – November 17, 2012 at the ROM in Toronto**

On Saturday, November 17, 2012, the Royal Ontario Museum will be hosting a talk on monarch conservation by Dr. Orley “Chip” Taylor, who is the director and founder of Monarch Watch. Monarch Watch is a cooperative network of students, teachers, volunteers and researchers dedicated to studying and raising awareness of the Monarch butterfly. While the event is free, tickets must be obtained in advance at [http://www.rom.on.ca/programs/lectures/index.php?ref=showinfo&program\\_id=8108](http://www.rom.on.ca/programs/lectures/index.php?ref=showinfo&program_id=8108).



## North American Pollinator Protection Campaign Meeting Update

The North American Pollinator Protection Campaign held its annual meeting in Washington, D.C. in October. Three unique aspects of this year's conference were that the reception was held at the Canadian Embassy, a new Canadian Farmer-Rancher Pollinator Conservation Award was launched and a Memorandum of Understanding was signed between the Canadian Federation of Agriculture and the Pollinator Partnership. An added bonus was that Carol Dunk, a member of the Ontario Horticultural Association and founder of the Roadsides/Pollinator Patches program, was able to attend. She was presented the Canadian Pollinator Advocate award by Pollination Guelph board member Victoria MacPhail, who had nominated her on behalf of the board. The meeting also provided the opportunity for nearly two dozen Canadians to meet and discuss ways to further pollination research and outreach in our country.



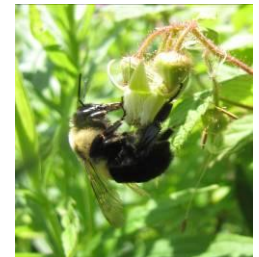
*Carol Dunk (2<sup>nd</sup> from left), of Barrie, Ontario, was presented with the Canadian Pollinator Advocate Award by Victoria MacPhail (2<sup>nd</sup> from right).*

## Best Management Practices for Pollination in Ontario Crops – New Web Resource

[www.pollinator.ca/canpolin](http://www.pollinator.ca/canpolin) is a new web resource for growers, pollination biologists, conservationists, students, and others interested in pollinators and crop production. The site provides information on topics including pollination and why it is important, managed pollinators, wild pollinators, using managed pollinators and encouraging wild pollinators, pesticide safety for pollinators, and information on the breeding system and pollination requirements for over 35 crops grown in Ontario. Check it out today!

## Bees in Space: Will Bees Pollinate an Extraterrestrial Crop?

The University of Guelph is known for its ground-breaking contributions to the fields of pollination and space science, and there are now people who are conducting cross-disciplinary research in these areas, with out-of-this world applications. Previous research has looked at what food could be grown in space greenhouses for astronauts and colonists to eat, but Erika Nardone, a MSc student at Guelph took this a step forward, as she realized many of these crops would require pollinators to set fruit. She wondered if bumble bees, known greenhouse pollinators, could forage in low-pressure conditions. She added colonies of bumble bees to hypobaric chambers and exposed them to atmospheric pressures ranging from 30 kPa to ambient or normal conditions (about 97 kPa). The bees were videotaped as they foraged on artificial flowers filled with a sugar solution, and their actions recorded.



*Bumble bees may be brought into space to help pollinate food for astronauts and colonists.*

At 50 kPa or higher, bees spent around 35% of their time foraging, and less than 15% not moving, which was similar to their activity at ambient pressure. In contrast, below 50 kPa, bees spent less than 10% of their time foraging. Bees also had far less control in their flight take-offs and landings at the lower air pressures. At 30 kPa, flight stopped nearly altogether, even when the atmosphere was supplemented with oxygen. As NASA currently recommends a pressure of 52kPa for these greenhouses, this shows that bumble bees can indeed play a role in “self-sustaining” space missions. Read the paper by on-line at <http://gravitationalandspacebiology.org/index.php/journal/article/view/565>.

**Did you know?** The weight of a pollen load carried in the corbicula (pollen basket) of a honeybee is of the magnitude of 5-10mg, comprising some 50,000 - 1,000,00 individual grains. These grains are packed in tightly enough that they are lost for pollination (i.e. will not fall out or be transferred to another flower), but because bees are unable to clean all pollen off of their hairy bodies, pollination can still occur as they fly about.



(In: Faegri, K. and van der Pijl, L..1980. Principles of Pollination Ecology. Pergamon Press Ltd, Great Britain, pp 55-69)

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](mailto:pollinationguelph@gmail.com).

All photos © V. MacPhail, except for the photos of the Hospice Wellington gardens and the GCUOF arbor, by Lorne Widmer.