



What's Growing On? The Fletcher Wildlife Garden Newsletter

www.ofnc.ca/fletcher

July - August 2014

Summer Days



In recent years, House Wrens have become a regular nesting bird at the Fletcher Wildlife Garden, usually fledging two broods a year.

It's been a long time coming, but summer has finally taken hold. The Fletcher Wildlife Garden is awash with blooms, birds, and insects. Our three regular volunteer crews — as well as a number of volunteers who work on their own — are taking advantage of the warm days to continue their hard work maintaining the garden. But help is always needed, so come along and join us — your help counts.

In this issue, we learn about the Emerald Ash Borer, a destructive little beetle that was the cause of the massive cut down of our beloved Ash Woods. We also take a look back at our successful annual plant sale, an award given to the FWG by the City of Ottawa, an in-depth look at the goings on in the Backyard Garden, a new scientific project, and the frustration of trying to get the FWG's main road named and mapped. And we have our returning favorites: Nature Notes and Things I Learned on Facebook.

Don't forget to check our photo galleries frequently — www.pbase.com/fwg. Christine has been posting fascinating photos of insects: a tiny mayfly with huge eyes, red wasp cocoons, oak aphids, a giant swallowtail butterfly, a white-marked tussock caterpillar, and more. Most are colourful and beautiful and the photos are works of art.

Speaking of art, not only do we have an outdoor exhibit “Beyond the Edge” taking place to the south of the FWG, but one of the artists has also created a couple of pieces in our garden. Karl Ciesluk has used fallen branches in our birch grove to build ladders “connecting earth and sky” and is showcasing the intricate shape of the now-dead Camperdown elm at the crossroads west of the woods.

Many reasons to visit the FWG this summer! Hope to see you there!



This hornet was very much enjoying the nectar of the figwort flowers.

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Contact Us!**FLETCHER WILDLIFE GARDEN****Box 35069 Westgate PO****Ottawa ON****K1Z 1A2****Tel: (613) 234-6767****Email: fletcher@ofnc.ca****Find us Online!****FLETCHER WILDLIFE GARDEN****Our Website: www.ofnc.ca/fletcher****Our Text Blog: fletcherwildlifegarden.wordpress.com****Our Photo Blog: www.pbase.com/fwg/root****On Twitter: twitter.com/FletcherWildG****On Facebook: www.facebook.com/groups/48901132335/****Plant Sale Success***Text by Barbara Riley*

The 2014 plant sale started in summer 2013 with seed collection at the Fletcher Wildlife Garden. Over the fall and winter, carefully tended by volunteers, the seeds germinated, put out tiny leaves, then grew into plants that were potted up in May. At 8 a.m. on a bright and sunny Saturday morning in early June a troop of volunteers got to work - erecting canopies, positioning tables, organizing parking, hauling flats of plants onto shelves, adding labels, and putting up signs - getting ready to welcome an enthusiastic crowd of customers.

As buyers emptied the shelves, "runners" kept more pots coming from the nursery; other volunteers helped buyers identify and label purchased plants and carry them back to the parking area. Every plant sale has its popular species. This year we sold out of beebalm,

bergamot, columbine, prairie smoke, butterfly weed, and black-eyed Susans. We also sold more milkweeds – both common and swamp – than ever before with many people asking for them before the sale. This is good news for the monarch butterfly whose existence is threatened by habitat loss due to development and by the widespread use of herbicides.

One of the pleasures of the plant sale was meeting other people who are also working to support local wildlife and to garden in a more environmentally conscious way by using native plants. We had lots of opportunities to share gardening experiences with them and to offer solid advice - handing out our free brochures, referring them to the experts at the Information table, and inviting them to visit the demonstration "Backyard Garden" where customers could see for themselves what the plants looked like in the ground.

Eager buyers were still coming in by the 12:30 p.m. closing time as weary volunteers started to take down canopies and shelves while our treasurer counted the money: over \$5000 raised, a record for the plant sale, our only fundraising activity.



The very busy cashier's tent. In the FWG shirts, left to right: Marilyn Ward, Muriel Scott-Smith, and Gretchen Denton.



Emerald Ash Borer at the Fletcher Wildlife Garden

Text and photos by Christine Hanrahan

Background

The emerald ash borer (*Agrilus planipennis*), EAB for short, seemed to descend on the Ottawa region overnight: one day they were absent, the next, they were everywhere. Of course, it didn't really happen quite that fast, but the incursion of this species into Ontario and then into Ottawa was relatively rapid all the same. It probably appeared in North America in the early 1990s but went unnoticed for some years until the die-off of ash trees was significant enough to cause an investigation.

By the early years of the 21st century, this species was found in southern Ontario. Stories of large-scale cutting of ash trees in affected areas reached Ottawa, but we believed the beetle couldn't survive our colder winters, hence we had nothing to worry about.

Unfortunately, they can. Whether it is because our legendary cold winters are becoming warmer or whether these insects are more cold-tolerant than originally thought, I don't know.

Rumours of the EAB in Ottawa surfaced 5–6 years ago, but I don't think anyone could have predicted just how quickly they would spread throughout the city. Now, in 2014, we see entire areas devoid of trees where once large old ash thrived. It is easy to pick out the remaining ash trees, for they are all dead, or nearly so.

EAB damage at the FWG

On the Central Experimental Farm, the EAB was discovered a few years ago, but even then, we didn't anticipate the speedy spread down Ash Lane and over to the FWG and the Ash Woods.

Some of the FWG ash trees seemed susceptible to partial die-off, but, on the whole, most were fairly healthy. Then, in the winter of 2012/13, hairy woodpeckers became especially visible at the garden, stripping the bark off dozens of our ash trees. We soon realized, with sinking hearts, that this was a sure indication that our trees were infected and the woodpeckers were probing for EAB larvae. Not surprisingly, many found it hard to believe that woodpeckers were responsible for this kind of extensive bark stripping, but soon sightings of the birds working away on ash all over the city became common.

At the FWG, more than half of our ash trees bore signs of hairy woodpecker work by mid-winter 2013. Throughout 2013 and into 2014, woodpeckers continued probing the trees for tasty treats, and by spring 2014, it was apparent that most of our ash trees had been done in by the destructive little beetles. Agriculture and Agri-Foods Canada (AAFC) informed us that they were going to remove all ash trees from the woods, and cutting



The meandering tunnels created under the bark of ash trees by the larvae of the emerald ash borer.



This beautiful metallic green Buprestid beetle, is the reason why we have lost all our ash trees in the ash woods!

began in early summer. The woodlot is a very different place now.

In an ironic twist of fate, ash trees had been widely planted across Ontario and Quebec and in the United States, because they were resistant to pests! They replaced the elms that died in the thousands from Dutch elm disease. And now, pest-resistant ash has succumbed to a tiny visitor from the East.

The emerald ash borer

It is hard to believe that a little beetle could wreak such havoc so quickly, but such has been the case. The EAB is a buprestid beetle, a group known collectively as "jewel beetles" for their iridescence.

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A Crabronid Wasp (Cerceris fumipennis) at a nest hole

Native species of buprestids are common in Ontario, many in the same genus as the ash borer, *Agrilus*. The EAB is a brilliantly green, very beautiful beetle. The adults are harmless, but their larvae are destructive.

According to Gould *et al.* (2013), the EAB has either a 1- or 2-year life cycle, “depending on temperatures (latitude and altitude), local population density, and tree health.” A simplified explanation of a 1-year cycle sees the female seeking out the rough bark of trees in which to deposit eggs, each female laying about 200 eggs. Once the eggs hatch, the larvae can bore through the bark, which seems remarkable given their soft bodies. After excavating through the outer layer to the new sapwood, they feed until cold weather arrives. Winter is spent in pupal chambers excavated by the larvae. With spring comes pupation and, by sometime

in summer, the adults have emerged, leaving behind a very distinctive D-shaped exit hole.

How such small larvae can so quickly damage large healthy trees is explained by the fact that they feed on the phloem of trees. When few larvae are present, the tree is able to defend itself, but as the population of EAB larvae increases their feeding disrupts the flow of nutrients through the tree and soon causes death. (Gould *et al.* 2013).

Control methods

The usual response to EAB infestation is to cut down the infected trees. At first, there was much discussion about not moving infected logs to areas free of ash borers, but we hear little of that now that the beetle is spreading far and wide. The damage has already been done. There are expensive treatments that one can use to try and inoculate trees against EAB damage, but treating a city full of trees would be prohibitively expensive, and even if this city decided to go that route, it is really too late.

Biologists are now pinning hopes on biological control. As a new crop of ash seedlings grow, they may be able to survive if the EAB can be controlled or severely reduced.

EAB is native to northeast Asia where populations are relatively low, thanks in large part to natural enemies. Scientists have finally isolated several hymenopteran species (two Braconids and a Eupelmid), which they have been rearing in controlled conditions for some years and have released at several sites in the northern US. In Canada, the Canadian Food Inspection Agency has approved the release of two wasp species in the Braconidae and Eulophidae families at several test sites in southwestern Ontario.

Another tool that that might prove helpful in the battle against the EAB is biosurveillance. This is difficult to describe, but in simplified terms means using a specialized buprestid predator and monitoring its nest sites to see if it catches the EAB. A Crabronid wasp, *Cerceris fumipennis* has been investigated for use in this project. As an early warning system, it can alert scientists to new areas infiltrated by the EAB.

I first heard about the potential usefulness of *Cerceris* in the early detection of the EAB, in 2009. By coincidence, I had just discovered a colony of these insects while looking for sand wasps. The following year, I found another colony in another area and heard of several others within the city. I have no idea how well this biosurveillance will work, but I mention it here for interest as it has the support of many entomologists and other scientists.

References

Gould JS, Bauer LS, Lelito J, Duan J. 2013. Emerald ash borer biological control release and recovery guidelines. United States Department of Agriculture, Animal and Plant Health Inspection Service, Agriculture Research Service, and US Forest Service, Riverdale, Maryland. Available: www.nrs.fs.fed.us/disturbance/invasive_species/eab/local-resources/downloads/EAB-Biocontrol-Field-Guidelines-2013.pdf (accessed 15 July 2014).

FWG given Garden Volunteers Recognition Certificate

Text and photo by Barry Cottam



Over a hundred gardeners crowded into the Champlain council room at City Hall on a lucky Friday the 13th. They were there to celebrate the City of Ottawa's first National Garden Day; attendance no doubt got a boost from a big enough downpour to make gardening impossible. Originally slated to be held in the Marion Dewar Plaza Garden, the event was quickly moved indoors and participants overflowed into councillors' chairs. Volunteers from more than 30 gardens were recognized, their representatives receiving a Certificate of Volunteer Recognition on their behalf. Isabelle Nicol, our Backyard Garden manager, represented the Fletcher Wildlife Garden, and, the FWG being a long-term project of the Ottawa Field-Naturalists' Club, Fenja Brodo agreed to represent the OFNC.

Several of our volunteers also attended, sporting their bright green Fletcher T-shirts. It was fun as well to meet volunteers from other gardens, most notably several Friends of the Central Experimental Farm, which was also recognized. In fact, the FCEF and the FWG were one and two on the list.

The event was organized by the Canadian Garden Council, whose chair, Michel Gauthier, was emcee, and hosted by Mayor Jim Watson and Ed Hansen, Ottawa President of Landscape Ontario. It was a fun and gratifying experience, but before they'd finished their free ice-cream bars, Fenja and Isabelle were scheming ways it could be made even better next year.

What's in a Name?

Text by Ted Farnworth

If you have ever been asked where exactly is the Fletcher Wildlife Garden, you know the problem. Yes it is off of Prince of Wales Drive between Baseline and the round-about, yes it is just north of the red barn, yes it is up the road from the baseball diamond. Google Maps is no help, as the garden appears to be in the middle of an open area, with no apparent road into it. But there is a road. We all know there is a road. The problem? The road has no name.

This lack of a proper address causes some challenges when we make up brochures describing the garden. Also, some people have questioned whether this lack of a clear address could be a potential safety problem if there ever was an emergency. This concern is even more evident when you find that at the local fire station, our access road is not on their map! Response time to emergencies, particularly, a medical emergency, can be critical. Any delay in finding the garden could have serious consequences. Shouldn't our road have a name?

But like most things "it is complicated." The Fletcher Wildlife Garden is on Agriculture and Agri-Food Canada land. Ag Canada does not see this lack of a road name as a big problem. Apparently, Ag Canada and the City of Ottawa have been talking about names for various roads on the Central Experimental Farm for over four years. But it is not evident that the road into the garden is part of those discussions.

The Fletcher Wildlife Garden Management Committee will try to get the City of Ottawa and Agriculture Canada to see this as a priority, and hopefully someday soon we will have a name for our road.



Notes From the Old Ottawa South Garden Club

Good for your Garden: Birds, Insects, and Wildflowers

Text by Colin Ashford, photo by Diane Lepage

To complete a most successful season of talks and workshops, the Old Ottawa South Garden Club invited Isabelle Nicol, Manager of the Backyard Garden at the Fletcher Wildlife Garden, to talk to the membership on the importance of having birds and insects in the garden and the role that native plants and flowers play. Formerly with the NCC, Isabelle is now a freelance teacher of natural history and presenter to many organizations including garden societies, schools, and seniors' clubs.

Isabelle began her presentation with a number of views of the Fletcher garden including the pond, the wildflower beds, and the interpretation centre. Next, Isabelle showed pictures of migratory birds — such as waxwings, robins, and cardinals — that had arrived early at the Fletcher Garden and were feeding on many of the fruits, such as gooseberries and cranberries, that had overwintered.

Isabelle pointed out that, because many seeds will pass through the bodies of the birds and will eventually be excreted (likely landing far from the parent plant), the plant itself would become more widely spread. Interestingly, insects also help in seed dispersal: ants will carry the seeds of bloodroot to their nests, feed an appendage of the seed (called the elaiosome) to their larvae, and discard the unharmed seed in the waste area of the nest.

As the spring progresses, insects such as bees, gnats, and flies begin to appear and so the insect-eating birds, such as the warblers and the redstarts, will start to arrive from the south. Although some insects are annoying (and some downright dangerous), Isabelle pointed out that they serve a vital function by pollinating many of our local flowers: using nectar, plants lure insects into their flowers and, in doing so, the insects become covered in pollen which they dutifully transfer to the next flower on their itinerary. Isabelle noted that bees, because of the hairs that cover most parts of their bodies, are most efficient “pollinating machines.” Red trilliums use a different strategy: they emit an odour of rotting meat that dupes flies into visiting their flowers thus transferring pollen. Birds can also be pollinators: cardinal flowers have a special tubular structure that deposits pollen on the heads of feeding humming birds.

Isabelle encouraged the membership to grow more native plants in their gardens — plants such as trilliums, asters, and bloodroot — birds, insects, and plants have co-evolved over millennia and rely on one another for their survival. Isabelle especially mentioned growing milkweeds (as edging plants —milkweeds can be quite invasive) to encourage the monarch butterfly.

The 2014-2015 season of the Old Ottawa South Garden Club starts on Monday, 8 September 2014 at the Firehall. It meets on the second Monday of the month except for October, when it will meet on the second Tuesday.



A Giant Swallowtail Butterfly on Butterfly Bush.



Know your enemy: learning more about DSV

Text by Barry Cottam

Carleton biology professor Naomi Cappuccino came to the FWG on June 5 to give a presentation on “Dog-strangling Vine: Problems and Potential Solutions.” This OFNC-sponsored event drew half a dozen people from the FWG / OFNC but even more from the community of individuals working on this problem plant in their own areas and properties. Dr. Cappuccino had conducted and supervised research on DSV at the FWG for several years in the early 2000s and, more recently, has been involved in biological control efforts. The primary species is Pale Swallow-wort, *Vincetoxicum rossicum*, as opposed to the much less common Black Swallow-wort, *Vincetoxicum nigrum*, which is found only rarely in Ottawa.

The presentation was a lively, informative, almost upbeat discussion of recent research into the characteristics of DSV. Dr. Cappuccino clarified that DSV is an herbaceous plant, i.e., one that dies back to its roots very winter. Many alien, exotic species are not invasive; non-invasive exotics outnumber invasives by about ten to one. These factors notwithstanding, answering the question “What makes a species invasive” is difficult in the absence of comparative studies with native plants. Several factors that contribute to invasiveness are well known, however: alien / non-native species; high seed production and germination rates; reduction in biodiversity and no natural enemies in their new location.

DSV has the additional advantages of allelopathy, i.e., the ability promote its growth by chemically changing the soil composition in its favour, and polyembryony, i.e., the ability to produce more than one plant from a seed. Up to seven plants from a single seed have been observed, although the normal rate is from two to four. Furthermore, DSV does better in a crowd and its seeds have very high rates of both germination and survival. Germination and survival rates both increase, improving with crowding, a factor to which polyembryony contributes. DSV plants take four seasons to mature to adulthood, and once that stage is reached, their survival rate reaches an astonishing 100%. Allelopathy is a method of competition involving the leaching of chemicals from a plant’s roots. Research has demonstrated that leachates from DSV roots reduce the growth of other plants.

The importance of control of DSV by arthropods is demonstrated by two simple facts: DSV is expanding vigorously in eastern North America, while it is difficult to find in the Ukraine, where it originated. A researcher counting arthropods on 50-stem batches of DSV and other plants found fewer than 100 on DSV, between 5 to 600 on milkweed, and from 800 to 1300 on goldenrod. Leaf herbivory may be used as a proxy for estimating the absence of arthropods and hence invasiveness: DSV plants show very little herbivory compared to native species. Dr. Cappuccino explained that primary chemistry relates to the chemical properties that enable plants to grow, while secondary chemistry relates to defences plants use against arthropods and other plants, allelopathy being an example of the latter. DSV also has unique alkaloids, including antofine. No other plant in North America has been found with this particular phytochemical. The Novel Phytochemical Hypothesis posits that exotic plant species having strong secondary chemicals are more likely to become invasive than exotics with weak secondary chemicals.

Dr. Cappuccino undertook a research project that isolated the strongest secondary chemicals in a number of highly invasive species then checked for these chemicals in non-invasive species. She found that no plants shared the strong chemicals found in invasives, while non-invasives had a high rate of sharing of their weak secondary chemicals.* An interesting side note: the strong secondary chemical in Garlic Mustard is cyanide; so much for control by eating this plant that was brought to North America as a pot herb!

Now that we are more aware of all the advantages that this incredible plant can use, what about the potential solutions? The main one offered was an update on the biocontrol program using larvae of the moth *Hypena opulenta*. Several other species are being studied, but *Hypena* is so far the only one to be tested in the field. About 500 larvae were released on the Central Experimental Farm in May 2013. They overwinter as pupae, and so the next phase is coming very soon: determining their success rate and their ability to reproduce and grow in numbers.

Following the presentation, the group took a tour of the FWG to see DSV in action, so to speak. It is

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everywhere, of course. I took this opportunity to confirm with Dr. Cappuccino that the only known is the use of the herbicide glyphosate. The FWG is undertaking a 2-3 year test of this chemical in a section of the New Woods. By then, hopefully, more will be known about the capacity of *Hypena* to control DSV. If we are very fortunate, it may be that control of this plant will come biologically rather than chemically. Whichever route is taken, however, many years will be required before we can declare any success.

Prof. Cappuccino published this research in *Biology Letters* in June 2006; see <http://171.66.127.192/content/2/2/189.full>.

Scientific Experiment at the FWG

Text by Ted Farnworth, photo by Diane Lepage

The Fletcher Garden is many things to many people – a place for a relaxing walk with the dog, a quiet spot to enjoy the colours and fragrances of the Back Yard Garden, a naturalist’s destination to see a wide variety of plants and birds. But it is also a laboratory. Or, more accurately, a place to carry out some science.

The FWG has been approached by Dr. José Fernández-Triana. José works at the Central Experimental Farm and is a specialist in the field of parasitic insects. He collects, and identifies wasps that lay their eggs in caterpillars as part of their reproduction cycle. He now wants to collect and identify the parasitic wasps of the FWG. José is convinced that there may be over 100 different types of parasitic wasps living in the FWG and parasitizing its caterpillars. Some may never have been identified before!

Although most of us don’t appreciate it, the FWG, like most places outdoors, is home to a very large number of insects, including caterpillars. And where there are caterpillars, there are parasitic wasps. But like so much of

the natural world, we know very little about which species call the FWG home. According to José, this will be the first scientific study of parasitic wasps on caterpillars done by volunteers in this area. It will be a great example of “citizen science” (or science done by interested citizens).

So Jose would like anyone who is interested to help him collect caterpillars that may be infected with wasp eggs. He has written an easy to follow set of instructions that show you how to store and feed any caterpillars you catch, and has also posted online more details and pictures detailing the process.

If the caterpillar is not infected, it will build a cocoon and then emerge as a moth or a butterfly that you can release. If the caterpillar is infected by a wasp, eggs will appear on the caterpillar, the caterpillar will die and eventually the eggs will hatch and out will come the parasitic wasps. The wasps are what Jose needs for study.

The FWG is a big place, and so the more people looking out for caterpillars the better. If you would like to help José with his parasitic wasp survey, you can contact him at Jose.Fernandez@age.gc.ca or by phone at 613-759-1034.

Brochures and collections boxes can be found in the Interpretation Centre.



A White-marked tussock caterpillar



A dozen new Monarch mini-waystations

Editor's note: This year we grew a LOT of milkweed plants for our annual native plant sale. The news that milkweed had been removed from Ontario's noxious species list came just in time, so we had plenty of common and swamp milkweeds and butterfly weed to sell and share with people eager to help the Monarchs. Before the sale, one of our volunteers asked if her father, a retired United Church minister, could buy some plants for a special project he had in mind. I said I would trade plants for a story about their destination, but Ken Robinson insisted on paying – and he and his wife Flo followed up with this delightful piece for our newsletter as well.

“What would it be like if you only had one kind of food to eat?” “What would it be?”

This is how the conversation with the children began at Riverside United Church on June 1, the Sunday before Environment Day.

One answer to the second question was, “vegetables.” That helped us get into a conversation about Monarch butterflies, whose larvae eat only milkweed leaves. Some of the children already knew some information about Monarchs.

We discussed the Monarchs' problem finding enough milkweed plants to survive the trip from Mexico to Canada in the spring and in Canada where they spend the summer. Those in on the conversation were invited to help “feed the worms.” Young milkweed plants in pots were given to the children, and families were encouraged to plant and tend them for the summer (and succeeding summers, we hope). We will all be watching for the Monarchs!

We are grateful to the Fletcher Wildlife Garden where we purchased the young plants, the result of someone's care, from planting the seeds to watering and protecting the young specimens.

Incidentally, prior to the Sunday described above, we topped some of the taller plants and put the cuttings in water where they have rooted. They will soon be ready to plant in FWG volunteer Peggy Robinson's garden. In the meantime, we have enjoyed the foliage and the process of little roots sprouting forth. What a wonder life is: plant, insect, human, and all!

Thanks, Sandy, and the Fletcher Wildlife Garden for making this possible, and for the fun!



Many insects are attracted to Milkweeds, one, the monarch butterfly, lays its eggs on it.

Public talk: Creating native pollinator habitat



Bumblebee on Bergamot

When: Thursday August 14. Doors open at 6:30, talk starts at 7 pm

Where: Ottawa Public Library, Main Branch, 120 Metcalfe at Laurier

Admission: \$10 at the door, no registration required

Sponsored by: Just Food – <http://justfood.ca>

Pollination is not only essential for many of the foods and crops we rely on, it also plays a key role in maintaining the integrity of our natural ecosystems. Join pollination biologist Susan Chan to discuss the importance of native pollinators for food production, and in the broader context of conservation.

Susan will introduce participants to the native bees of Ontario and explain their importance. She will describe their behaviour and outline their habitat needs through photographs and stories. Learn simple tips for creating both foraging and nesting habitat in large or small spaces, and see examples of this work on several properties in east central Ontario.

Rebuilding our woods

Text by Sandra Garland



The before picture: 60-year-old ash and oak trees with an understory of ironwood, pagoda dogwoods, sugar maples, balsam fir and a forest floor covered in a variety of ferns, sedges, and wildflowers.

In the spring newsletter, I mentioned that Agriculture and Agri-Food Canada (AAFC) would be cutting down and removing the ash trees that make up the largest proportion of mature trees in our woodlot. The trees were infested with Emerald Ash Borer and were dying quickly. (Read more about this non-native beetle in the article by Christine Hanrahan in this issue.)

Although I wanted to view this as an opportunity to plant a greater variety of locally native tree and shrub species, the reality of the damage was shocking. By late May, not only were the ash trees gone, but many of the younger trees I had planted over the last 20 years had been damaged by falling branches and by machinery moving and chipping logs.

Over the last couple of months, we've been assessing the damage, making repairs where possible (a small pin cherry that had been rolled over by a truck is now upright and doing fine), and figuring out how to replant the woodlot.

With help from many volunteers, we've planted the young sugar maples, balsam firs, and cedar trees that I ordered from Ferguson Forest Centre last fall. So far, we've also added fewer numbers of donated basswood, blue beech, and red maple trees.

I've finally planted the band of fruit trees and shrubs that I've been planning for the last 2 years along the south side of the woods. Hopefully, these dogwoods, high-bush cranberries, currants, one nannyberry, blackberries, and pin cherries will bloom in successive waves next spring to the delight of bees using the insect hotel next door.

Ideally, trees that fall in a forest should be left to decay and return all the nutrients they contain to the soil to nourish new growth. In this case, because so many trees (about 50) had to be felled at the same time, leaving that amount of debris was impossible. However, AAFC arborists did leave a few logs – a substantial one in the area where Lis Allison and Joan Darby planted so many ferns over the last 2 years.

I also asked AAFC to leave stumps. If we couldn't have "nurse logs," perhaps we could have nurse stumps. Haven't you seen trees growing out of the remains of a pine cut 50 or 100 years ago? I also salvaged some sections of logs and set up pseudo-stumps along the main trail



After the fall: a huge "hole" in the centre of the woods where damaged ash trees were felled, cut up, and dragged out – stumps, branches, chips, debris.



Long-time volunteer, Renate Sander-Regier, brought a group of young people to help plant. Big thanks Renate, Maria, Ursula, Lise-Anne, and Nicholas.

through the woods. They make terrific seats, tables, and fences to protect new plantings. And they'll eventually decay and replenish the forest soil.

When life gives you branches, make brushpiles. This could be a law of wildlife gardening as brushpiles provide shelter, homes, and feeding places for a number of creatures. The large ash branches went into a wonderful big pile of the type David Tomlinson specified when he designed the FWG. I've placed one near the centre of the woods, and I'm hoping to build at least one more this size.

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A real brushpile: two layers of logs that are about 4 inches in diameter and 6 feet long, topped with smaller branches.

We've also planted a variety of wildflowers, including turtlehead, large-leaved aster, heart-leaved aster, thimbleweed, flat-topped aster, milkweed. Milkweed? Yes, common milkweed in the woods! I had intended to plant a large patch of milkweeds south of the woods, but a pile of logs is still sitting in that location. Instead, I spread a bunch of seeds that I was still storing in the refrigerator right in the middle of the woods where they would get the most light. They've sprouted and I'm hoping they might attract a couple of monarchs next year.

Zigzag goldenrods are growing normally and some are about to bloom. Ferns are recovering nicely, bloodroot leaves are perking up in shady areas, and white snakeroot is popping up here and there. I have been assured by several foresters that spring wildflowers can take more damage than this and still bounce back. Jewelweed, an annual that we can always find in the woods,

is prolific this year, blessedly shading some of the smaller ferns and woodland wildflowers that would otherwise be parched by the sun.

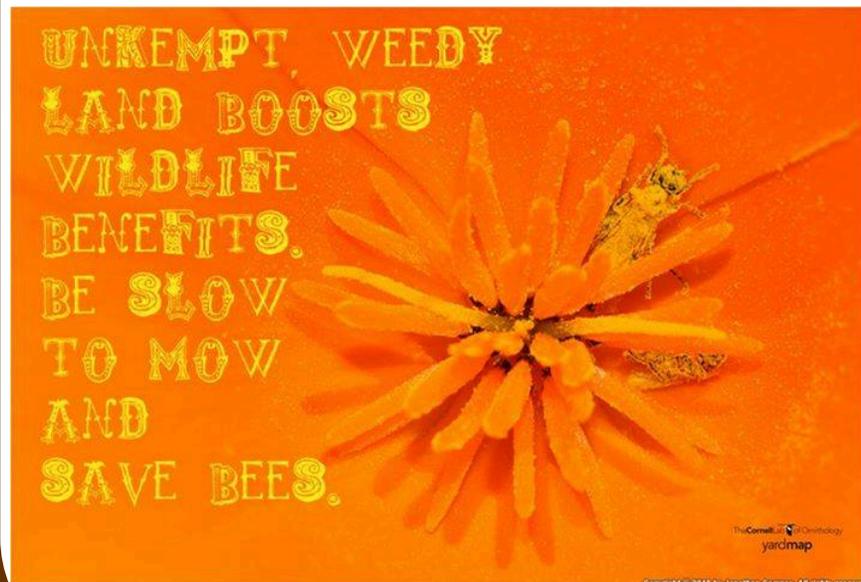
What's remarkable is the number of cherry trees – mainly black cherry and chokecherry – that are coming up. And there are grape vines everywhere. The woods will be a very different place over the next few years. It will be very interesting to see how it develops.

Footnote: Thanks, Catherine Shearer, for pulling out all that dog-strangling vine so that we could plant balsam firs in just the right spot. Thanks, Iola Price, for all those trees you donated and planted to get the rehab under way. Thanks, Renate, for your ongoing support and all the members of the next generation you bring to the FWG. And thanks to a group of Fisher High students who planted two dozen 1-foot tall white pine trees on the north side of the woods in 1996. I hope they remember doing that and that they bring their children to see the trees, which are now 30 feet tall.



A very different woods.

Let It Grow - Advice From Yardmap



Bees have been in the news lately as research continues to show their populations are in trouble. You can help out by letting small corners of your yard go fallow. The resulting wildflowers are important forage for bees. This is an easy and important step that many people can take – and it might just have a big impact on wild pollinators.

Yardmap is a new citizen science project from the Cornell Lab of Ornithology. Visit the site for other tips on helping wildlife and contributing to local conservation in your own backyard - <http://content.yardmap.org/>.

Our Backyard Garden: bursting with life

Text by Isabelle Nicol

Spring seems to have come and gone quickly when it comes to the Backyard Garden (BYG) at Fletcher this year. And so much growth has happened given the recent rain and humidity. At the beginning of spring, winter aconite, coltsfoot, bloodroot and hepatica made an early showing, followed by red and white trilliums, yellow lady's slippers, wild columbine and Canada anemone, among many others that bloom throughout spring and into early summer.

The garden is fruitful with its displays, which also include trees and shrubs. Red and black currants have bloomed and are now hanging with fruit that is enjoyed by the denizens of the BYG. The plum trees, having lost their beautiful white blossoms, are also now

laden with green fruit that will slowly ripen into delicious yellow plums. Black elderberries, with their wonderful white blossoms still to be seen, will soon exchange them for purple fruit, as will the wild grapevine that hangs like a garland over the arbour.

Early summer flowers are blooming — wood poppies, harebells, hairy and white beardtongue, — while mid-summer plants are now just beginning to come into bloom — black-eyed susans, coreopsis, mallow, and beebalm, to name a few. As an aside, it was nice to see that after many years of sitting in plastic pots on the edge of the pond, marsh marigolds have broken their bonds and the roots are now invading the soil and will produce a larger, more natural looking display with time.

Ox-eye daisies were very showy this year and the harebells are creating a lovely trace of blue through the rockery, replacing maiden pinks' brilliant blooms. Showiest of all at the moment is the prickly pear cactus with marvelous golden blooms of its own, many more than in past years — an eye-catching display for folks visiting the garden.

Wildlife is abundant this year, from toads to voles, birds to snakes, bees to dragonflies. More butterflies are showing up adding their lovely colours to the garden as well. A weasel was sighted in the BYG, and a number of years ago a mink was also spotted in our tiny pond, attracted no doubt by the fat frogs. Earlier in the season a red-tailed hawk stayed a while and was discovered to have taken down one of our green herons. A juvenile, he brashly stood on a stump where he fed on the heron in full view of a group of gleeful photographers. Then, he cockily cleaned himself and dozed in the warm sunshine, much to the delight of ever more photographers. He stayed around for some time at the FWG and may have been the most photographed hawk in the area.

A vole's nest was disturbed as the compost pile was being turned over, and two baby voles were displaced. Suddenly, two adult voles showed up with one in hot pursuit of the other. We had placed the two orphan babies in a spot where we thought they would be easily found, and it soon became pretty obvious who was mom and who wasn't. When the first vole sniffed out one of her infants, the other was not the least bit interested. I restrained



*Roses are blooming in the Backyard Garden.
Photo taken by Robert Berry.*



Yellow lady's-slipper (Cypripedium parviflorum), Photo taken by Robert Berry

the would-be suitor as the mother vole picked up her estranged youngster and disappeared into a hole by the fence. We placed baby number 2 next to the hole and, sure enough, mom showed up about 10 minutes later, picked up her youngster carefully, and relocated it, no doubt, to a brand new safer nest.

Voies love the compost heap — nice, warm and cozy. However, after stopping to talk, one of our visitors last week let out a shriek as she passed the compost bin. I ran over to see what the problem was. She had seen a frog sitting on the heap and, when she went over to investigate, discovered that one long hind leg was down the gullet of a rather large garter snake. Our visitor was shocked by the sight, but probably

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no more so than the voles who love to play, run, and chase each other in the compost pile. Anyway, to make a long story happier, what with the tumult around the compost bin, the frog was released and made a quick exit.

Our serviceberry tree was laden with red berries this past week, much to the delight of most of the birds in the BYG. It was invaded by robins, catbirds, house finches, cardinals, cedar waxwings, baltimore orioles, and more — all coming to gulp down the sweet bounty. Even the squirrels, grey and red, and chipmunks climbed the tree to share in the delightful harvest, and, no doubt, the fallen red berries added a delicious item to the menu of the many critters that roam the undergrowth, from birds, to mice, to insects.

Green frogs are still emitting territorial warnings to each other in our small backyard pond, and one hot sunny afternoon a toad sitting at the side of the pond joined in with its rather pretty serenade. Just this past week, I saw a mating threesome of green frogs underway. Yes, a threesome. One female was clinging to what appeared to be another female, while the third, a male, clung to the other two. The foremost female was at times slipping under the water with the weight of the other two but did not seem very harassed by the whole situation. And the happy result? The pond is teeming with tadpoles. Some male frogs are so befuddled by the effect of their hormones that they will grab onto any other frog, including males.



A young Gray Treefrog, one of many spotted in the BYG. Photo by Diane Lepage.

Rabbits have appeared in greater numbers this year than I



*A rabbit sampling some garden Phlox.
Photo taken by France Thibodeau*

Rabbits have appeared in greater numbers than I have seen in past years at the FWG. It's obvious that they regard the BYG as one big salad bar set out for their personal dining pleasure. At the top of the list of favourites are heart-leaved asters, big-leaved asters, mallow, and violets, among a whole group of plants that they delight in sampling. Disheartening when you're expecting a plant to break out in beautiful blooms and you find that wonderful plant has been eaten down to the stem and sometimes even gone.

This being the first summer that we have seen so many rabbits in the BYG, we can only hope that next summer, their numbers will be back to normal.

See you in the next newsletter — or perhaps before. Come out and enjoy our wonderful Fletcher Wildlife Garden!



Greening St. Gregory's

Text and photos by Andrew Harvey

Since November, 2013 St. Gregory Elementary has been hard at work planning, designing, and creating two outdoor classrooms. Students and staff worked with a school ground design consultant, as well as mural artists, woodworkers and gardeners. The project was completed in June 2014, just in time for the grade 6 graduation ceremony.



A panoramic view of the new plantings at St. Gregory's

During focused and guided survey sessions, students had the idea of having log seating alongside meadow plantings and murals that depict the school's greening aspirations. After a winter of planning, students assisted with site preparation and planting, mural painting, and woodwork. Several parents donated a variety of plants, and a wide selection of indigenous species came from the Fletcher Wildlife Garden. This summer, university students participating in the Carleton Serves volunteer program will also be helping out with plant care.

The students at St. Gregory are very enthusiastic about outdoor learning and connecting with nature. Now, after all of their efforts, they will be able to learn directly from nature in their outdoor classrooms.

Andrew Harvey, MLA, AAPQ, CSLA, is a landscape architect and school ground design consultant with Evergreen OCSB.

www.evergreen.ca

FWG helps local high school naturalize memorial garden

by Chris Drummond, Nepean High School Environmental Studies Teacher



Westboro's Nepean High School started a Memorial Garden six years ago as a way to remember students who unfortunately passed away during their time at the school. Over the years, flowers of all types have been planted in the garden.

This year, the school's Environment Club decided to turn the site into a wildlife garden, and purchased a variety of flowers at the annual plant sale in May. With the help of Sandra Garland, several well-suited plants were selected, then planted by students from the Environmental Science class. Additional plants were generously donated by the Fletcher Wildlife Garden staff, which filled in the garden space beautifully.

Thank you for all the support!



What I learned on Facebook this month

Text by Sandra Garland

[Lost Ladybug project - Click Here](#)

[Scientist unravels mysteries inside a butterfly chrysalis - Click Here](#)

Photo of Baltimore Checkerspot, seen during the OFNC trip to the Larose Forest on June 21. Fan Song. The larval food for Baltimore Checkerspots is White Turtlehead (*Chelone glabra*). We have some in the Backyard Garden at the FWG, but this makes me want to plant it everywhere. (See right.)



Both Lese Ferguson and Susan Fillman photographed a Great Crested Flycatcher carrying nest material to one of our bird boxes in June. (See left)

[Excellent article on Native plants versus cultivars - Click Here](#)

By mid-July, people were starting to see monarch butterflies in our area - [Click Here](#).

But we were especially excited when Nui posted a photo of a monarch laying eggs on one of the little milkweed plants she bought at our annual sale – and eggs a few minutes later. (See below)

[Article on large moths by Michael Runtz of the Macnamara Field-Naturalists: The giants that stir at night in nature - Click Here.](#)

[Canadian Wildlife Federation's Wild about Gardening summer newsletter - Click Here.](#)

[Great web site resource for identifying local butterflies - Click Here.](#)

[How to build an underground greenhouse for \\$300 - Click Here.](#)

[Plants that will grow near walnut trees \(and another of plants that won't\) posted by Phil Reilly - Click Here.](#)

[Excellent article on dragons and damsels by Michael Runtz of the Macnamara Field Naturalists Club - Click Here.](#)

[Coyote scat and native plant conservation – article posted by Renate on how native plant seeds have to be retrieved from coyote poop! Click Here.](#)



[Our climbing groundhog photographed by Marguerite Naylor. \(See Left\)](#)

[Toronto Fairmont Royal York home to new “bee hotel” - Click Here.](#)

[Bumble bees coming to a neighbourhood near you — or are they? Click here. - and a way to help bumblebees - Here](#)

[Japanese Barberry linked to Lyme Disease - Click Here.](#)

Tenants in our insect hotel

Text and photos by Sandra Garland

Despite the fact that I drilled into the ends of 2X4s instead of across the grain as I later learned would produce cleaner holes, a number of bees have moved into our insect hotel. Some “doors” seem to be closed with sawdust, others with clay. With Christine’s help, I was also able to identify a small wasp (*Leucospis affinis*) that is parasitic on leaf-cutter bees, making me think the latter might be staying at the facility as well!

In June I added more 2X4s – properly drilled this time – and lined some holes with paper straws. The straws were much preferred over naked holes and soon filled up. The hotel contains dried plant stems from daylilies, cup-plant, and wild parsnip. Some insects show an interest in these, but I don’t think any have been occupied.

In July, I found a number of Bald-faced Hornets busily scraping the wood that forms the structure of the hotel. They will mix it with saliva to make the large grey paper globes that hold their colonies.

Toward the end of July, I noticed that two of the larger holes had been filled with twists of grass fibres. I



Bald-faced Hornet collecting woody material for its nest.

wondered who had done such a thing, but before I could become too outraged, I noticed a large wasp fly in carrying a similar thin gray fibre and proceed to stuff it into the hole. Meet *Isodontia mexicana*, the Grass-carrying wasp, and another satisfied guest at the hotel



Our insect hotel is located in bright sun on the south side of the Ash Woodlot.



Grass-carrying wasp stuffing yet another fibre into the door to its eggs and cache of larval food.

Bug Day Returns!

When: Saturday, 6 September, 10 am to 3 pm

Where: Agriculture and Food Museum (across from Fletcher Wildlife Garden)

Back by popular demand. This event is coordinated by the Entomological Society of Ontario and sponsored by OFNC and Canada Agriculture and Food Museum. Activities will include: a live insect zoo, guided insect nature walks, seminars on insects, cockroach races, kid's insect crafts, ask a bug expert, building insect collections, cooking with insects and more. This event will happen rain or shine.



Nature Notes: Insect of the Month



The Primrose Moth (*Schinia florida*) Texts by Christine Hanrahan

When the beautiful yellow flowers of our native evening primrose plant (*Oenothera biennis*) appear, it is time to start searching for the gorgeous pink primrose moth. This quite spectacular insect seems at odds with our northerly climate, as it looks far too tropical and exotic. However, it has no problem overwintering (as a pupa) and emerging the following summer, in early July. The moths can be seen until September, as long as there are evening primrose flowers blooming. On one occasion, I did see a moth on sweet white clover (*Melilotus alba*).

The colour varies from very pale pink to a deep, almost fuschia colour, with a creamy band across the lower forewings, green eyes, and a white head. However, what one mostly sees is part of the pink body sticking out of the evening primrose flower, creating a striking colour contrast. In other words, look for a yellow and pink flower on the plant! Typically one moth is seen per flowerhead, although it isn't uncommon to see two in the same flower. One year I found three in a single flower, a bit of a squeeze.

Later in summer and into autumn, the small green caterpillars appear, looking nearly identical to the seedpods of the evening primrose plant. Look for holes chewed in the pods, a giveaway that the caterpillars are nearby.

Nature Notes: Frog of the Month

Gray Treefrog (*Hyla versicolor*)

The Fletcher Wildlife Garden has always seen good numbers of treefrogs, and if you don't believe me, go down to the amphibian pond on a mild night in late May through June and listen! The breeding chorus can be deafening but wonderful. Given that each female can lay an average of 1500 eggs, it is little wonder we see and hear so many, even allowing for the high rate of predation on both eggs and tadpoles.

Once the breeding frenzy is over, the treefrogs leave the pond, their duty done for another year, and head back to the upland sites they usually inhabit. Before, during and after the breeding season, you can hear them calling from trees, shrubs, other vegetation, rock piles, the walls of the Interpretive Centre... Their call is a high-pitched trill, quite harmonious to listen to. Some have compared it to being "a bit like" the call of a red-bellied woodpecker. Don't be surprised to hear them occasionally calling even in September, if the weather is warm and humid.

Tiny recently emerged treefrogs, brilliant green in colour, can be found perched on milkweed, grasses, comfrey, raspberries, even dog-strangling vine offers a well-used perch. Older adults have a more mottled appearance with dark grey blotches on a green or gray background. Their colour change is largely dictated by where they happen to be... on tree trunks they are usually grey, while on shrubs or herbaceous vegetation, they are green. In both cases, the dark patches create a camouflage effect, allowing them to blend in well. Even on the window ledges of the Interpretive Centre they can be hard to spot. On the white walls, it is another matter!. The lights which attract moths and other insects, attract the treefrogs... easy pickings. It has been said that colour change may in part also be a response to humidity and temperature.



See more on our PHOTOBLOG: www.pbase.com/fwg/