



# Thickson's Woods Land Trust

## Summer 2018 Newsletter 53

### Frogs, Toads, Pigs, Ducks and Ponds: Lessons from the Past

Hopefully, this headline has piqued your curiosity enough to encourage you to read Lucas Braisford's intriguing article on ancient solutions to pond construction later in this newsletter.

Lucas was born in Thickson's Woods. Well, I guess he was actually born in a nearby hospital, but his family still lives here and he spent his childhood playing in the woods and skating on Corbett Creek Marsh in winter. After high school Lucas went off to university. Since graduating, he has taught in several countries in Southeast Asia, and travelled the world, always noticing how people in so many communities managed to live in harmony with the natural world by employing simple solutions to everyday challenges.

Currently Lucas lived in Amsterdam. He is a strong proponent of urban bike travel and has worked with municipal governments in suggesting ways to make cities more livable and eco-friendly. But, as you'll learn from his article, he still thinks of Thickson's Woods as "home."

## Coming Events

**Saturday, April 28, 9:00 to Noon**

### **Garlic Mustard Search and Destroy Campaign (Cancelled in case of rain)**

Since spring is being held back by unseasonably cool weather, we have delayed our annual spring attack until Saturday, April 28. Garlic Mustard is a biennial. Seeds dropped last summer will sprout this spring when the soil warms. By the end of April, many of this new generation of plants should have sprouted. At that stage, they are tiny with just two small leaves and a weak root system. They can easily be removed by brushing them with a hoe or gardening glove. If the plants are allowed to grow larger, they disperse chemicals into the soil that interfere with the complex nutrient collection and sharing system that has sustained the plant and animal life of Thickson's Woods for thousands of years. Since Thickson's Woods had always been a forest, the area is a refuge for certain species that may no longer exist elsewhere in the region.

Thanks to your help last spring and fall, most of last year's plants are gone. Any larger year-old plants that were missed need to be uprooted with a small spade or trowel, have the dirt shaken off their roots, and be disposed of before they flower this spring, each potentially producing hundreds of seeds.

If you can help, park along Thickson Road north of the Waterfront Trail. Walk east to the entrance to the woods. Follow the path that wanders south through the woods to Lake Ontario. At the house on the right side of the laneway as you approach the lake, there will be tools, and containers for collecting the mature plants. No experience is necessary. Someone will be there to show you what to do. And if you have your own favourite equipment for tasks such as this, by all means bring it along.



[www.kingcounty.gov](http://www.kingcounty.gov)

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Charitable Registration # 11926 3176 RR0001**

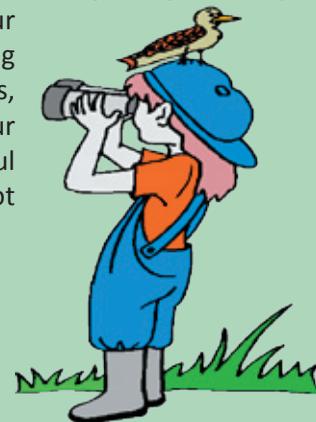
**Saturday, June 2: 8:00 to 11:00**  
**Dog-strangling Vine Control and Removal**  
(Cancelled in case of rain)

This aggressive alien invader spreads by seeds blown on the wind. First –year seedlings are tiny and hard to spot, but easy to remove. Mature vines several years old climb up into shrubbery to get to sunlight and later catch the best breezes to spread their seeds far and wide. A variety of tasks are available to suit every age and ability, from searching out and marking individual plants and patches, to removal and disposal of mature plants before they set and disperse seeds.

If you can help, park along Thickson Road and meet at the “Castle Gates” toward the north end of the Meadow. Bring water, snacks and sunblock, as well as any hoes and small shovels you have to tackle the problem. As you’ve no doubt seen in other areas, this weed is very aggressive and will choke out all other ground cover if left unchecked.

**Saturday, September 15 - 9:00 to 3:30**  
**Annual Fall Nature Festival**  
(Rain or shine, but hoping for “shine”)

Many of your favourite attractions will be back, plus some new and exciting offerings. “Max” the magician has agreed to return once again to confuse and entertain guests of all ages. Speaking of Wildlife will bring along a variety of guests old and new. And our resident chickadees, including this year’s crop of youngsters, will be eagerly awaiting your arrival, so bring along a pocketful of sunflower seeds so they’re not disappointed.



## A Trillion Trees for Planet Earth

By Margaret Carney

If you haven’t heard about the biggest tree planting project in human history, listen up! This great-news effort is something everyone on Earth can take part in, a practical, empowering step to counter climate change.

It started with a nine-year-old boy in a small village in Bavaria. When Felix Finkbeiner heard about a Kenyan woman getting a Nobel Peace Prize for planting trees—Wangari Maathai and her Green Belt Movement, where women planted tens of millions of trees to reverse desertification—he decided kids could do that, too. He gave a speech at a school assembly, announcing his plan to have schoolchildren around the world plant a million trees in their own countries. Plant for the Planet, a global youth movement, caught fire via social media, and kids went to work, strategizing, planning, planting, and amazingly, meeting that target in two years.

From that spark, a tree planting fervor kept growing. And so did Felix, a passionate ambassador for trees who’s spoken at the United Nations and European Parliament, urging and inspiring groups everywhere to “stop talking, start planting.” With amazing results, given that an estimated 15 billion saplings have been planted in the last decade.

Felix is nineteen now, a university student, and thinking bigger than ever. “Trees are by far the simplest and most efficient way to absorb the world’s emissions,” he says. “Why not use them?” A trillion trees could take in one-quarter of the CO2 humans pump out every year, helping keep temperature rise within the critical 2 degree limit. Not to mention clean the air, balance water cycles and tables and provide a living for millions of people.

Many of the trillion will be planted in the warm “Global South,” where trees grow fast and are less costly to plant and tend—as little as ten cents a tree, according to the Trillion Tree Campaign website, which provides a wealth of useful and interesting information. The 2017 initiative to restore Earth’s tree cover is a collaboration of BirdLife International, the World Wildlife Fund and the Wildlife Conservation Society. The project is 100% volunteer run and all donations go to tree planting. And there are many ways everyone can get involved.

## IN MEMORIAM

Recent donations have been made in memory of these special people:

**Alex James Adams**  
**Dave Calvert**  
**Matthew Clarke**  
**Pat Gibbons**  
**Robert Hambley**  
**Wilfred James Hiebert**  
**Dorothy Hooker**  
**Raymond Hughes**  
**Barbara Kalthoff**  
**Drenda Hicks Krainak**  
**Stephanie Pieke**

We join their families and friends in mourning their passing, and acknowledge their unique contribution to the rich web of life on planet earth. On our website we recognize all past donations made in memory of friends and loved ones.

### Natalie's

#### Adventures at the Youth Summit

I can't believe it's already been two months since the Youth Summit! It was so amazing, and the learning, fun and adventure was incredible.

Some of my favourite parts were going on nature walks where we got to see stunning views from cliffs, and super cool trees that we couldn't even get our arms around. We also experienced many different kinds of team work activities and really awesome games that involved a lot of thinking.

My favourite part of the weekend was being around so many others who enjoyed being outside, exploring in nature and not wanting to stay inside. (And the hot chocolate.)

I am also now on the Ontario Nature Youth Council and I'm so excited to see what's to come.

I'd like to thank everyone for giving me the chance to go on an amazing summit where I learned so much!

Sincerely,

Natalie Rae

Natalie was sponsored by Thickson's Woods Land Trust to attend last September's Youth Summit on Lake Couchiching.

### Gifts That Will Last Forever

Metres of the nature reserve  
have been saved in the name of:

**Dennis Barry & Margaret Carney**  
**David Hiscox,**  
**Lisa Dost and the Hiscox Family**

Thank you to everyone who gave a friend or  
loved one a share in this living legacy  
—a gift that will last forever!

On our website we recognize all past donations made to  
honour friends and loved ones.

# Pigs, Ducks and Ponds

By Lucas Brailsford

On a recent visit home to Thickson's Woods, Suzanne and I dropped over to Dennis and Margaret's house just before lunch. It had been nearly two years since I'd seen them, and it was time to catch up.

As we sat in the pocket of hot air blowing from the yellow-blue flames of their fireplace, the conversation bounced from topic to topic, but settled, as it so often does, on Thickson's Woods. After all, when you live here, nature is never far from the discussion. It permeates everything; the roots burrow in and the branches spread over every conversation. We talked about the forest, the meadow, the marsh, and plans to steward this ecosystem in the years to come. The newest idea being considered was a pond in the meadow to provide a safe haven for declining populations of frogs and toads.

As we talked, I posed a question, "Have you considered using pigs?"

I was wondering how they intended to seal the pond. I was concerned the soil in what had for many years been a cow pasture, might not have the composition of clay needed to retain water. Dennis said they were still considering possible options, and I wondered if pigs could do the trick.

For many years I've been fascinated by techniques in design that replicate the patterns and interactions that exist in the natural world. This has introduced me to new ways of looking at everything from architecture to agriculture, and to reexamining my place within the biosphere.

But more than anything, this interest has made me increasingly wary of technocratic, over-designed "solutions." This is especially true of problems that have existed for thousands of years, which already have viable, low-tech fixes. I love to read of goats on loan to landscaping companies to remove invasive plants. And species of mushrooms that can be inoculated near to the foundations of buildings to repel termites and wood-eating ants. Or, pertinent to someone who wishes to build a pond, how various animals are used to design or enhance landscapes, pigs and ducks for example.

Employing animals to do your dirty works is a time-tested practice. And if you consider that water features have been an important part of farming in

communities around the world for many millennia, there must be many low-cost, low-input solutions to problems associated with leaky ponds.

This is nowhere truer than in East Asia, where rice paddy farming has been practiced for more than 7,000 years. Some historians have argued that China has remained the oldest continuous civilization on earth because of the symbiotic relationship farmers have fostered between rice, a humble species of aquatic grass, and ducks, a domesticated waterfowl. Feeding billions of people over a span of several thousand years required a stable and abundant source of calories and protein. The ducks serve the farmer by eating weeds that compete with rice, and insects that threaten the crops. In turn, the rice paddies keep the ducks safe from predators. The manure produces a phosphorous rich mud that then fertilizes the rice. The farmers harvest the rice, collect the eggs and sacrifice a few unlucky ducks from time to time.

The result is an organic, sustainable crop that has been grown both in temperate and tropical climates, flatlands and even terraced sides of valleys in places unsuitable for most types of agriculture. The other critical element of this symbiosis, which has been so often overlooked, is that duck manure seals water in ponds.

Duck droppings produce a fine, silt-like sediment on pond floors that encourages the growth



Ducks in a rice paddy © Greenpeace

of a layer of anaerobic micro-organisms. Over time, a wetland soil called gleysol forms, which seals the pond and prevents water from seeping away. Just as a beaver engineers its preferred habitat, felling trees to build dams, flooding riparian expanses to create wetlands, ducks encourage the conditions which they favour in their environment.

Pigs are another unsung hero in pond construction that have been forgotten by the annals of history. In a time before heavy digging machinery and artificial pond liners, many farmers knew that the best way to seal up a leaky pond was to introduce pigs. When a pig wallows, turns and packs muddy soil, mixes in manure and other organic material, it too is creating the conditions to retain water.

But before scrolling through the results of a Google search for a local litter of pigs for rent, it would be essential to do more reading on the topic. This is a serious undertaking, and to develop the best approaches one would need to mitigate any negative impacts that could come from introducing pigs or ducks to a recovering meadow ecosystem.

But if you compare this approach to the alternative, lining the pond floor with a synthetic geotextile that will remain in place, slowly degrading into the environment for the next thousand years, using animals to create habitat for other living organism seems to me a much better solution.



## Changes in Amphibian Populations in the Thicksen's Woods Area

by Dennis Barry

Amphibian populations in many places around the world have been under severe pressure in recent decades. Diseases, climate change, pollution and loss of habitat have all played a part, but the causes are complex and difficult to unravel.

Frog and toad populations in and around Thicksen's Woods Nature Reserve have fallen dramatically. Long-time resident Tom Crawford told me about cutting hay back in the mid-nineteen hundreds in fields where the Corbett Creek Pollution Control Plant now stands. In those days leopard frogs were so abundant in the area, it was difficult to move about the hay fields without crushing them. Now it's rare to come across a leopard frog in the meadow or around Corbett Creek Marsh.

When Margaret and I moved to Thicksen's Point in the early 1980s, American Toads were plentiful in our yard. Often when we sat in the shade of the big spruce out front, it was common to see two or three large toads sitting at the base of the tree picking off ants crawling up and down the trunk. And when we



Leopard Frog (Mike McEvoy)

mowed the lawn or tilled the garden, we had to move toads out of the way before we continued.

Suddenly, one summer when we returned from a two or three week canoe trip, the toads were gone. I found a dead one in the garden, but saw no others for the rest of that year. What would have caused such a

sudden disappearance? Since then, we see occasional toads in the garden or the woods, and sometimes hear individuals calling from the marsh in late May, but the frog choruses of old are silent.

Back in the 1990s there was a population of Green Frogs in the stream that flowed into Lake Ontario from the steel plant to the west. The stream was warmer in early spring than others around, since it carried cooling water used in the steel mill. Not long after, the stream was channeled underground through pipes and the frogs disappeared.

When beavers dammed up the west branch of Corbett Creek just above the road into the Corbett Creek sewage plant a few years later, Green Frogs suddenly appeared in numbers, their calls filling the spring air as they went about their courtship rituals. The first dam was removed by a motley crew early one morning, no doubt hired by someone worried about the safety of the road if the dam gave way. A second dam, built later, washed out because the rocky bed of the creek wasn't compatible with the beavers' style of construction.

Now, only rarely in spring does one hear a lone Green Frog trilling from somewhere in the marsh.

The only other amphibian species I've encountered in the neighbourhood is the Wood Frog.

Wood Frogs breed in temporary pools. Breeding success depends entirely on the pools retaining water for the few weeks it takes their eggs to hatch and the tadpoles to mature and move to land. About five years ago in April, there were perhaps a dozen males singing in a temporary pond in a hollow along the wooded barrier beach between Corbett Creek Marsh and Lake Ontario. I doubt water remained long enough for tadpoles to mature. Last spring's high water should have provided ideal conditions for amphibians using temporary pools, but I'm not sure if any Wood Frogs or American Toads took advantage.

The water quality in Corbett Creek Marsh is very poor due to pollution entering the feeder streams inland.

Last summer, Whitby Mayor Don Mitchell, Central Lake Ontario Conservation Area staff and representatives from Thicksen's Woods Land Trust met by the marsh to discuss pressures facing the wetland. A commitment was made to set up a joint committee to plan possible ways to mitigate stresses on the wetland. Hopefully, subsequent actions will be successful in restoring the marsh to good health, and spring mornings will once more be filled with songs of frogs and toads.

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## Thank you, TD Friends of the Environment!

Dealing with invasive species in the nature reserve takes so much focus that we don't always take time to cherish the native wildflowers, ferns and grasses growing there. That's about to change, thanks to a special donation from TD Friends of the Environment. The TD Friends committee voted to fund the purchase of native plant materials for a few key locations that need tender loving restoration.

Native grasses like little bluestem have root systems ten times deeper than Kentucky blue grass, so are ideal to help hold soils atop the eroding bluffs of Lake Ontario. A woodland screen at the west end of the valley trail will include blue beech, pagoda dogwood and striped maple, as well as snowberry and spicebush. The proliferation of deer in recent years is making us

rethink including Canada yew, a favourite woodland food for deer. It would be wonderful to plant a few eastern hemlock as well, since Thicksen's Woods has just one of these native climax-forest giants, at the edge of Corbett Marsh. But deer love hemlock too.

If you love digging in the earth and planting native species, we want you on our restoration team! Contact Margaret Carney, 905-725-2116 or [mcarney@interlinks.net](mailto:mcarney@interlinks.net)

## Thank you, John Lounds!

For selecting Thicksen's Woods Nature Reserve to receive a portion of his prize in winning a Nature Inspiration Award from the Canadian Museum of Nature. Congratulations, John, and thank you!

## Thank you, Jack Alvo, Darlene Hardy and Frank Pinilla!

For choosing Thicksen's Woods as the charity to share a portion of the money you raised during the 2016 Great Canadian Birdathon.

## Thank you Ontario Power Generation

and Victoria Street Home Depot Store and Ellen Waterson and the other volunteers!  
For your continued support of the Fall Nature Festival.

# Biodiversity in Thickson's Woods News from the Matt Holder Environmental Research Fund

by *Phill Holder*

## More Exciting Discoveries!

Over the last three years of our biodiversity studies in Thickson's Woods, we have discovered so much, and yet, like the Energizer Bunny, the woods keeps on giving.

In midsummer 2017, total moth species identified in the nature reserve was 989, tantalizingly close to our next target of 1000 moths. During early August, new species appeared at each session, and the White-lined Sphinx got us to within three species.

But the Champagne remained on ice until August 21,

two species new for Canada, the Assembly Moth and the Eggplant Webworm Moth.

Although our focus has, so far, been on identifying moths, we also capture a wide variety of beetles. This year's goal is to identify and document more of these fascinating insects.



The new Checklist of Thickson's Woods Moths is available from [www.mattholderfundeshop](http://www.mattholderfundeshop)



Number 1000 Green-spotted Looper  
(Mike McEvoy)

when we did it! A thousand species: What a feeling, what a place, what an experience! The 1000 moths challenge was complete.

Number 1000 was a Green-spotted Looper, quite a rare find that was unexpected at Thickson's; a perfect moth to mark the milestone.

Our team has come a long way in such a short time. The first time we caught moths was June 11, 2015. Dennis Barry and I didn't have a clue and moths were escaping everywhere, but we were able to get some photos for David Beadle to identify and start us on the exciting journey to 1000 species.

Having reached the first objective, our enthusiasm continued well into October, when rarities sometimes appear. We were not disappointed, with several really rare moths visiting Thickson's. Including, we believe,



Assembly Moth  
(Phill Holder)

Eggplant Webworm Moth  
(Phill Holder)



Speaking of beetles, I recently received a great new book, and a whole other world opened up. It's called ***Fireflies, Glow-worms, and Lightning Bugs: Identification and Natural History of the Fireflies of the Eastern and Central United States and Canada*** by Lynn Frierson Faust University of Georgia Press.

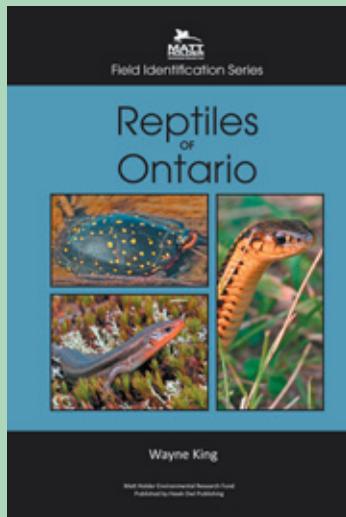
I had no idea there were 2000 firefly species world-wide or 125 species in North America or even that 23 species have been recorded in Ontario. I also realized that I do not know what species occur at Thickson's Woods — YET!

When conditions are just right, we see fireflies at dusk while setting up our moth traps, but never in large numbers. As with most insects, they are in decline. This year I intend to find out what species live here and add these wonderful beetles to our data base.

As we've discovered with many kinds of moths, fireflies have such enchanting names. Winter Firefly, Woodland Lucy, Silent Firefly, Dot-Dash, Candle Firefly, and Sneaky Elf are species already discovered in Durham Region. Mike McEvoy photographed Woodland Lucy in Oshawa, so, with luck, we might add this to our Thickson's Woods list. And if the diversity of moths already found in Thickson's Woods Nature Reserve is any indication, there may be new firefly species hiding there, too.



Woodland Lucy *Lucidota atra*  
(Mike McEvoy)



Available from [www.mattholderfund.com/shop](http://www.mattholderfund.com/shop)

Matt Holder Field Identification Series

## Reptiles of Ontario

By  
Wayne King

Wayne King travelled through forests, woodlots, meadows, marshes, ponds, swamps, bogs, rivers and streams to photograph every reptile species known to exist in Ontario.

This guide provides key features needed to identify Ontario reptiles in the field. There are over 140 detailed photographs to support the underlying text, depicting the key identification features of each species.

It can be used by naturalists, biologists and herpetologists but was specifically designed for individuals who have limited to no reptile identification skills.

**Available May - \$20**

**Meet Wayne on May 19th for a signed copy.**

**Join us in the meadow for a Birder's Breakfast - coffee and muffins  
8:00 a.m. Saturday, May 19.**

Guided Bird Walks

Meet the Experts

Book Signings

Publications available

Moth Display

Small Mammal Display



Kite Optics will demonstrate their state-of-the-art high resolution  
Binoculars, Telescopes,  
Hand Lenses and Camera Gear.

Field tests by local birders have shown these modestly-priced optics to match the best in the world.



# We Get Letters

Dear Friends,  
After years of reading the newsletter, this greeting seems appropriate.

Enclosed is a very small amount representing my enormous appreciation of Thicksen's Woods and Meadow. How grateful I am to the courageous men and women who, at great personal risk, stuck their collective necks out and saved these spaces.

On a number of occasions I've visited, bringing guests to introduce them to my "birding passion." Watching their wonderment when a chickadee lands on their hand to receive a seed is among cherished moments.

I'm also remembering Raymond Hughes, who sang in The Society of Singers with me. Although my visits are less frequent these years, I am encouraged by the research being done in the reserve by the Matt Holder Environmental Research Fund. Retaining the woods and meadow for learning and enjoyment is a legacy worth celebrating. With deep gratitude,

Pat Deacon

*Thanks, Pat, for your kind words! Hearing from folks like you who share our passion for nature, reminds us how vitally important it is for all like-minded people to continue to do all that we can to protect wild spaces for the plants and animals that call them home, and for the humans who need such places to relax and rejuvenate.*

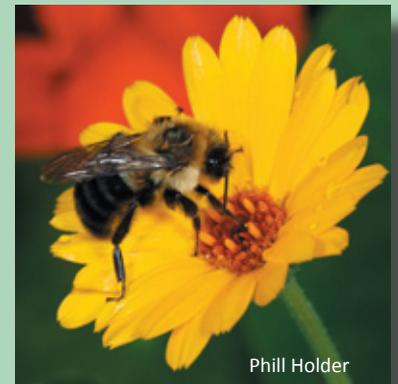
*We, in turn, want to say how much we appreciate the encouragement, help and support over the years*

*from the many individuals and companies who make it possible to continue to protect and maintain Thicksen's Woods Nature Reserve. Without your help, this couldn't happen.*

*To volunteers, too numerous to mention by name, who give of their time and energy to make the fall nature festival happen, maintain trails, control invasive weeds and guide visitors in their encounters with nature;*

*to leaders and staff in government at all levels who promote policies and programs that acknowledge the critical importance the natural world plays in maintaining the fabric of healthy, vibrant communities;*

*and to those whose financial support ensures the future of the reserve, our heartfelt thanks.*



**A very special Thank You to Phill Holder and the Matt Holder Research Fund team!**  
For the countless hours spent investigating and documenting various components of the animal life that inhabit the reserve. Your work will provide an invaluable base of information from which to monitor future changes in the makeup of populations of various species in the Thicksen's Woods Nature Reserve.

Yes, I want to help protect Thicksen's Woods Nature Reserve. It's a very special place!  
We need spaces where plants and animals can thrive and people can relax in nature.

Here is my tax-deductible contribution of \$ \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ Prov/State \_\_\_\_\_ Postal Code \_\_\_\_\_ Tel. \_\_\_\_\_

e-mail \_\_\_\_\_

**Cheques can be payable to Thicksen's Woods Land Trust.**  
**Mail to: Box 541 Whitby, ON L1N 5V3 (Charitable Registration # 0674382-52-13)**