

THE CARDINAL

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The McIlwraith Field Naturalists of London Inc.

"To Preserve and Enjoy Nature"

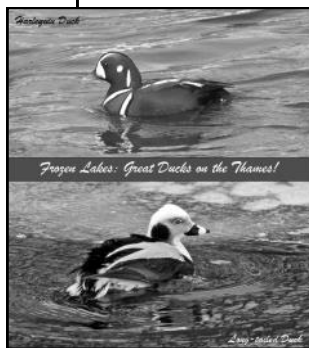
Harlequin Duck



Frozen Lakes: Great Ducks on the Thames!



Long-tailed Duck



COVER: A long, cold winter in Southern Ontario means that the Great Lakes freeze almost completely. Overwintering ducks cannot dive to feed when ice completely covers shallow and moderately deep water, so they search for open, shallow water. We are the beneficiaries and this was a banner year for ducks that do not normally visit the Thames River. Among them were **Long-tailed Ducks**. This male (lower) was photographed by **Mike Nelson**. The greatest excitement was generated by the male **Harlequin Duck**, photographed by Sue Southon. Harlequins normally spend their winters on the west

or east coasts of North America and only a few come to the Great Lakes.

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MY BIRD FEEDER AND I

Ron Martin

This is all about my bird feeder and I. I could never have guessed what I was in for when I bought a bird feeder. I chose a very attractive, wooden house with a sloping roof that could be opened to allow bird seed to be poured inside. The seed then tumbled out onto a suitably wide porch that no bird could resist. Next, I chose a suitable spot with good cover all around, and easy viewing for me. It seemed all I had to do was fill the feeder and wait.

One day was all it took before the sparrows and chickadees appeared - a good start! The second day was better with a cardinal or two. On the third day, the first squirrel showed up; it scored high on the cute scale. On the fourth day, he (or she) brought a friend or two. It was not long before the birds were being outcompeted, at which point I decided that the whole concept of "cute" squirrels required revision - I needed a strategy.

I fear that at this time I made an unwise decision, to think that rushing outside, waving my arms and shouting might actually frighten the little rodents (yes I had begun to call them rodents). Apparently word got around that not only was there free food, but free entertainment as well; the total number of squirrels observable at any one time rose rapidly to six. It was clear that prompt and reasoned action was required. Although sorely tempted, I ruled out trapping, shooting and poisoning - after all I was the one invading their territory and they had as much right to be around as I did. It was time for humane deterrents.

First, I tried bird seed laced with Capsaicin, the active ingredient in hot peppers. This became a learning experience for me and I took note of the following valuable information:



A Cooper's Hawk dining on Mourning Dove. (Photo by Ted Henderson.)

Capsaicin (8-Methyl-N-vanillyl-(trans)-6-nonenamide), the chemical that causes the burning sensation when you eat hot peppers, does so by activating the nerves responsible for detecting burns; the mammalian brain interprets messages from these nerves as indicating a burn of greater or lesser severity. Birds lack this sensory response. Squirrels are mammals and should avoid hot peppers. As good fortune would have it, specialized bird seed blends contain Capsaicin as an additive. I tried it, it works, but it is expensive and not readily available. I felt another approach was needed.

Second, I tried a strategy I discovered after much searching on the web. It turns out there are many ingenious devices for keeping squirrels and bird seed apart. I chose a clever double-cylinder system with the bird seed on the inside and a movable outer cylinder that closed all the feeding ports whenever anything as heavy as a squirrel was on it. While this worked and continues to work exceedingly well, it does lead to two-tiered feeding with birds both on the feeder and on the ground, gleaning fallen seed, where the squirrels were welcome to share. Little did I know; there was more to come.

You will recall the six squirrels; one day there were five and shortly after that, four. There was also a Red-tailed Hawk spending a lot of time on a nearby telephone pole. When there were only three squirrels, the hawk left, presumably looking for better hunting. This was not to be the end of my experience with flying predators; I noticed that the population of Mourning Doves was also in decline and about this time I found a Sharp-shinned Hawk on my doorstep dining on dove.

A feral cat began making brief appearances and this completed the feeding trio: hawks in the trees, birds on the feeder and cats on the ground. I was less than happy with the cats, yet there were other mammals to watch. I have noted chipmunks, rabbits, skunks, raccoons (the latter knocked my feeder down on at least two occasions) and even deer that seemed to visit out of curiosity on snowy nights.

I was beginning to think I'd seen it all when one night my feeder was stolen (I suspect yet another mammal). Naturally I replaced it. It would seem that feeding birds can be addictive and I'm not about to let a little thing like theft stop me. But I suspect my little saga is not over.

(Ron Martin is a member of the Cardinal Editorial Committee. He compiles our Newport Forest articles [see page 28].)

RESEARCH AT WESTERN

HOW BIRDS COPE WITH URBAN NOISE

Leslie Kostal

Imagine you're at a large cocktail party. As more and more people enter a room and everyone chats, the volume of conversation gets louder and louder. You may need to shout to be heard. The phenomenon of producing louder sounds when there's background noise can happen instantaneously. What happens when vocalizing birds can't be heard by one another due to urban noise?

The cocktail party analogy came from Western's Dr Scott MacDougall-Shackleton, of the Psychology Department, who is working with Dr Dominique Potvin, formerly a post doc at Western and now at the Finnish Museum of Natural History and University of Helsinki. Their relatively new area of research looks at how birds cope with urban noise. In addition to field work experiments, MacDougall-Shackleton and Potvin combine different areas of expertise to determine whether noise acts as a physiological stressor.

MacDougall-Shackleton explained that a bird hears much the same way we do. If you part the feathers on either side of a bird's head you will see two small openings that are the ears. The range of frequencies that birds hear is similar to ours although some species may hear lower-frequency infrasound, which is what we feel, rather than hear, coming from speakers at a rock concert.

One hypothesis about why different species of birds have different types of sounds in their songs has to do with how well songs can be transmitted through the environment in which the birds are living. If a bird attempts to sing in a forest, for example, leaves, tree trunks and branches scatter noise, causing little echo. These birds will likely sing with sounds that can carry farther through the forest. Species living on a prairie with less reflection of sounds will have to cope with more wind noise. Animals living in the same type of habitat for many hundreds of generations have a song adapted to cope with the background noise of that habitat. Urban noise and sounds associated with urban sprawl, however, is a relatively new problem.

Potvin claims that the number of bird species is decreasing in urban areas world-wide. "We aren't sure whether this is because they are actively leaving urban areas or if they are simply unable to reproduce there." She also noted that in Ontario, there are birds called urban adaptors or exploiters, e.g., chickadees and Song Sparrows.

In general, sparrow species, other seed eaters such as cardinals, jays, and woodpeckers seem to be able to adapt well to cities. Insect

eaters such as warblers are often excluded from these areas. As this is a new area of research, it is difficult to make broader

claims, such as estimates of the number of species having left urban areas due to habitat and species variables.

"We are affecting wildlife in ways that we might not initially think," MacDougall-Shackleton said. Among the species that choose not to flee to the country, some may sing louder or change frequencies. Often the lower frequencies are dropped, shifting up the pitch. The song is louder and higher in response to noise. "Singing more loudly or less loudly is very dynamic," he explained. "But changing the frequency could change the information they are communicating."

Whether or not the volume or frequency of song is changed, one certainty remains. Those birds staying in noisy environments do modify behaviour and "it looks like different species are going to have different capacities to alter behaviour," MacDougall-Shackleton added.

"Access to food can be affected by noise if the bird uses sound to hunt for prey," Potvin wrote. Listening for sounds of insects in tree trunks can be impeded, slowing the food-gathering process. "In addition, parents might have a harder time hearing nestlings' begging calls," she added. Young birds might receive reduced feeding due to noise. MacDougall-Shackleton said there's evidence to suggest that a robin cocking its head on the lawn is listening for worms in the soil. Woodpeckers are probably listening for insects crawling under bark.

"Why some species can change their vocalizations to cope with noise and others can't is an area that we really don't understand very well," MacDougall-Shackleton noted. However, it has been determined that the difference between songbirds and other birds, is that songbirds *learn* their vocalizations. There's an opportunity for rapid cultural evolution. Each generation is learning the song from the previous one. Hummingbirds are included among the songbirds for this trait. Other species unable to learn their vocalizations are stuck with the song they are born with.

MacDougall-Shackleton explained that if a bird population in the city is modifying its song to cut through noise, it might actually be a less effective or attractive song. Taken out of the city, those birds might be less understood by the rural ones of the same species. They might know it's their own species' song, but may find it less appealing. Males sing more than females and in many species, only males sing. A male's song might help to defend its territory and females listen to songs to choose a mate. Either way, their new urban music could be less effective.

While at Western, Potvin experimented with domesticated Zebra Finches at the Advanced Facility for Avian Research (AFAR) using sound chambers. One chamber



Above: Zebra Finches at AFAR. (Photo by Tony Hammoud.)

Left: Sound Chambers at AFAR. (Photo by Scott MacDougall-Shackleton.)

would exclude all sounds except for noises the birds made themselves and the other played recordings of traffic noise, trains, or anything a bird living in a city could be exposed to. Interestingly, over approximately a month, their song changed little. What did change, however, was their behaviour during incubation. If a bird is less able to hear predators, it can spend more time going on and off the nest being vigilant, looking for potential predators. This can take away from incubation time or feeding its young – all increasing the risk of losing a nest. “We often see in noisier areas that birds have less reproductive success,” MacDougall-Shackleton said.

Potvin wrote that ongoing research indicates that noise may not be as “stressful” as first thought because there aren’t findings of hormonal changes that might be expected

if the birds were under some kind of chronic stress. MacDougall-Shackleton and Potvin both believe that habitat and food sources are important considerations when city planners are zoning land. In addition, understanding how noise – and even light pollution – is affecting wildlife has significant consequences for many bird species.

[Leslie Kostal is on the Cardinal Editorial Committee.]

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WHAT’S THE LATEST BUZZ? BUMBLE BEE WATCHING

Victoria MacPhail

An Easy, Fun and Valuable Activity to Do at Home, Down Your Street, or at Your Favourite Park

Have you ever wondered what types of fuzzy, buzzy bumble bees are in your garden? Have you heard about the sharp decline in many bumble bee species, such as the Rusty-patched Bumble Bee (*Bombus affinis*) and wondered what the bees look like? Would you like to help researchers find rare species and learn more? If so, you can be a Bumble Bee Watcher!

Wildlife Preservation Canada is partnered with the Xerces Society for Invertebrate Conservation, Montreal Insectarium, University of Ottawa, Natural History Museum (London, UK), and BeeSpotter on the exciting new BumbleBeeWatch.org citizen science website. Up to a third of our North American bumble bee species are in decline. We want to increase public awareness about their existence and role in our ecosystems. As well, the more observations we can obtain from across Canada, the better we can understand the distribution and status of our wild species. That’s where citizen scientists come in!

At BumbleBeeWatch.org you can:

- Upload photos of bumble bees to start a virtual bumble bee collection
- Use an interactive guide to identify the bumble bees in your photos
- Have your identifications verified by experts
- Help determine the status and conservation needs of bumble bees
- Help locate rare or endangered populations
- Learn about bumble bees, their ecology, and ongoing conservation efforts
- Connect with other citizen scientists engaged in pollinator conservation

There are actually 20 bumble bee species in Ontario, in varying numbers within different areas of the province. Some are unique in appearance and others need a trained

The Brown-belted Bumble Bee (*Bombus griseocollis*) is some-



times mistaken for the Rusty-patched Bumble Bee (*B. affinis*; page 26) but it has a band of brown hairs across its first abdominal segment followed by solid black hairs, not yellow hairs like the Rusty-patched Bumble Bee’s.

(Photo by Victoria MacPhail.)

eye for identification. One of the best ways to learn about different species is by taking photos. By uploading photos to your computer, you can enlarge them to see the bee in greater detail. Submit the photos to BumbleBeeWatch.org and the interactive identification key on the website walks you through the different characters that make the bee unique. It also shows you other images for comparison.

All you need to participate in this project is a camera and an Internet connection. No insect collection or identification experience is needed! Get outside, find some flowers or nesting habitat, and take photos of bumble bees and/or their nests. Learn more at www.BumbleBeeWatch.org or www.wildlifepreservation.ca/insect-pollinators.

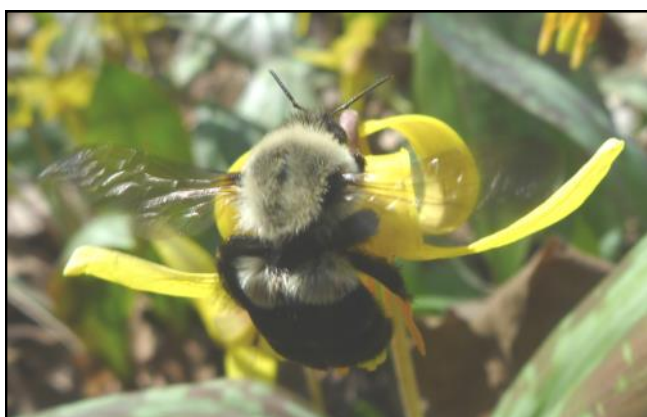
London Is Abuzz with Bumble Bees

London is a city that prides itself on being green and having large amounts of forest cover, natural areas, and of course, the Thames River. Partly for these reasons, it also has a diversity of bumble bee species. In fact, London was one of the last locations where the Rusty-patched Bumble Bee was found outside of Pinery Provincial Park. Just over ten years ago, it was found near Western University. It could still be around, so keep your eyes open and your cameras close by!

Aside from the Rusty-patched Bumble Bee, there are

other rare and unusual bumble bees found in parks and gardens, and along roadsides and at organic farms, in and near London. For example, the Yellow Bumble Bee (*Bombus fervidus*) and the American Bumble Bee (*B. pennsylvanicus*), both showing severe declines and rarely seen, were found by Wildlife Preservation Canada biologists just outside the city.

Another interesting species of bumble bee is the Lemon Cuckoo Bumble Bee (*B. citrinus*), which is actually a parasite of one of the most abundant bumble bees in the area – the Common Eastern Bumble Bee (*B. impatiens*). The Common Eastern Bumble Bee is also reared commercially and used for field and greenhouse crop pollination. The Northern Amber Bumble Bee (*B. borealis*), while not in decline, is often found only in higher-quality grassland sites. While it may not be seen inside the city, we have found it in the countryside near London.

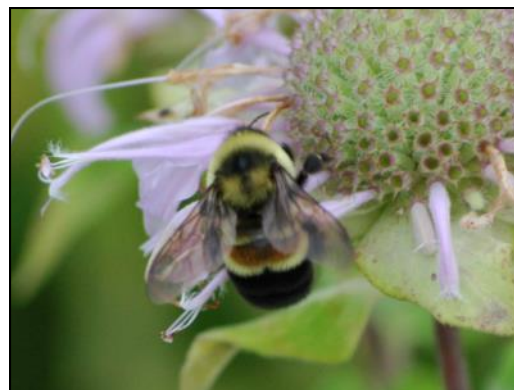


A main identifying feature of the Common Eastern Bumble Bee (*Bombus impatiens*) is the single band of yellow on its first abdominal segment. (Photo by Victoria MacPhail.)

In addition to the species listed above, at least four other species of bumble bees have been found by our staff in the London area over the past two years. These include the Two-spotted Bumble Bee (*B. bimaculatus*), Brown-belted Bumble Bee (*B. griseocollis*), Red-belted Bumble Bee (*B. rufocinctus*), and the Half-black Bumble Bee (*B. vagans*).

If you prefer to use a traditional field guide, consider picking up a copy of *Bumble Bees of North America – An Identification Guide*, published by Princeton University Press. This full-colour book is co-authored by Dr Sheila

Rusty-patched Bumble Bee.
(Photo by Susan Carpenter.)



Colla (Wildlife Preservation Canada's Pollinators at Risk Program Lead), and contains information about the species' habitats and biology in addition to identifying characters. It also speaks about bumble bee decline, conservation, threats, and how to observe and attract bumble bees.

Happy bumble bee watching!

How You Can Help

Pinery Provincial Park is the last known Canadian location of the Endangered Rusty-patched Bumble Bee. This species was once the fourth most common bumble bee in Southern Ontario, but since the 1970s has suffered a serious decline. None have been found since 2009. However, researchers believe it is not yet lost from Canada and are still searching for it. We can use more eyes in the hunt!

Wildlife Preservation Canada and Ontario Parks are looking for volunteers to help search the Pinery every one to two weeks this summer for the Rusty-patched Bumble Bee. No experience is required but you need to be able to get to the park, take digital photographs of bumble bees at an assigned location on certain dates, and upload them to the BumbleBeeWatch.org website. There is no minimum number of days required to participate.

To sign up as a volunteer, or for more information, contact us at bbwvolunteers@gmail.com, visit www.wildlifepreservation.ca/insect-pollinators, or come on the June 6 Nature London field trip to Pinery Provincial Park (see page 51).

(Victoria MacPhail is a Pollinators at Risk Program Biologist with Wildlife Preservation Canada in Guelph. She gave a talk and led a field trip on pollinators for Nature London last September.)

NAMES OF SOME WELL-KNOWN SPRING FLOWERS: VIOLET

The botanical name, *Viola*, apparently came from Io, a beautiful damsel, beloved by Zeus. He changed her into a heifer to protect her from his jealous wife Hera, and put her in a field of violets to eat. Hera saw this lovely white heifer munching on purple violets, and was suspicious. She asked Zeus to give her the heifer, and he was trapped into doing it. Then Hera spitefully harassed Io and finally sent a gadfly to torture her. Unable to eat or sleep, Io plunged into the Ionian Sea, which is also named after her. Then Zeus promised never to look at Io again and Hera turned her back into a girl. Violets then and now are linked with love.

Most of this information, and that for anemone (page 42), comes from a book called *100 Flowers and How They Got Their Names* by Diane Wells. Both these spring flowers grow wild in our area.

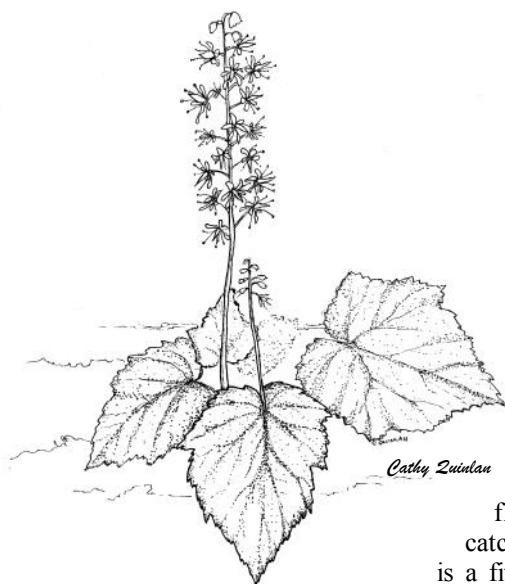
Ann White



Violet at Cedarcroft. (Photo by Christine deBoer.)

INTRODUCING FOAMFLOWER

Ann White



In mid-spring, Foamflower can easily be found growing in the rich woods around us. Several plants will grow close together and the mass of frothy

flowers is quite eye-catching. Foamflower

is a fitting name for this plant. Foamflower belongs

to the Saxifrage family (Saxifragaceae) along with the quite similar Mitrewort, Early and Swamp Saxifrage and Grass of Parnassus, which are all found in our area. Both Mitrewort and Foamflower have similar leaves clustered at the base of their flower stems, but Mitrewort also has two leaves attached to the stem and has just a few white flowers. Each Mitrewort flower has such deeply cut petals that, on close examination, it looks like a snowflake.

Unlike Mitrewort and Foamflower that have woodland habitats, Grass of Parnassus and Swamp Saxifrage grow in wet meadows or boggy places. Early Saxifrage likes sandy, rocky spots. Saxifrage actually means “rock-breaker” and is a good name for the cultivated plants that are favourites for the owners of rock gardens.

Foamflower, formally known as *Tiarella cordifolia*, is a perennial that appears in May and can be found throughout June. It prefers moist woods. The rather hairy leaves have several shallow lobes and are heart-shaped. They grow on individual stems around the base of the flower stem. Foamflower may grow to one foot (30 centimetres) in height. Its white flowers grow in a spike, and have very long, protruding stamens and five petals that taper into a stalked base. The long stamens make the flowers appear showier by filling the spaces between individual flowers, adding to the foamy look. Each flower produces two fruits with one being larger than the other, which gives a lopsided look to fruiting plants. The name *Tiarella* comes from the Greek *tiara*. This was a turban once worn by the Persians and refers to the shape of the pistil.

The *Tiarella* plant grows on both sides of the Pacific and thus is found in Eastern Asia as well as North America. In Canada there are two species – our *cordifolia* and *trifoliata*, which grows in British Columbia and southwest Alberta. *T. cordifolia* is found in Québec, New Brunswick and Nova Scotia as well as Ontario. In East Asia a third species called *T. polyphylla* grows. The leaves of *Tiarella* were once used to make brews for treating fevers and were often known as “coolworts”. In Japan they are known as “zudayakusha” which means “asthma helpers”.

New plants can grow from seeds, but mature plants also send out runners, producing Foamflower colonies that sometimes are quite extensive. Foamflower seeds are valu-

able food for birds such as Ruffed Grouse; as well, the flowers offer pollen and nectar to local pollinators. Foamflower is an excellent shade plant and ground cover. The underground rhizomes help ensure good coverage, the leaves cover a bare space attractively and the mass of flowers is a bonus.

Foamflower spreads readily but is non-invasive. For those with shade or woodland gardens it is a good choice. Apparently seeds collected from the wild can be planted immediately by just being placed on the soil and left uncovered, or they can be kept until later. If they are kept a long time they must be put in a cool place and watered for three months before planting. If there is insufficient air movement, the plants may get mildew, but they are tolerant of even deep shade. The plant can also be grown by dunking a leaf in rooting compound.

In the late 1980s a company called Primrose Path realized the horticultural potential of *Tiarella*, experimented with the plant and developed two hybrids from working with *T. cordifolia* and *T. trifoliata*. By 1990 these had become popular in the gardening world. The first cultivar was “Tiger Stripe” and from it came “Filigree Lace”, then “Martha Oliver” and “Elizabeth Oliver” (with magenta stripes in the leaves), named for the wife and daughter of the grower, Charles Oliver of Pennsylvania. Now there are a large number of variations with foliage of different colours and shapes. They are recommended to break up Hosta beds in shade gardens or borders, as they bring variety and lightness to complement the heavier foliage of Hosta plants. As I have several varieties of Hosta in my garden perhaps I will try to grow some form of *Tiarella* this year, although I will always prefer to see the wild ones on spring walks in my neighbourhood woods.

(This is Ann White's sixth article introducing a spring wildflower. She explains the origins of the names of two other wildflowers on pages 26 and 42, and invites you to this year's butterfly count on page 14.)

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Hugh Casbourn

As I was perusing the nature tour company catalogues, I dreamt of going to far off places, enticed by the surety of seeing more species to add to my life lists. Costa Rica – 250 birds, Peru – 300, and then there are the Eurasian destinations and Australia and New Zealand where just about everything would be new to me. Alas, some things are not meant to be, and travel may not be in the cards for you either this year. But what if I told you that with comparatively little effort you might be able to see 200 or more life species from the comfort of your back deck with nothing more than a porch light and a camera? Would you be interested?

Last year my son Garth (Casbourn) and I went on the June 6, 2014 Nature London mothing field trip led by Fiona Reid. The destination was Rick Martin's backyard and adjacent ESA (Sifton Bog Environmentally Significant Area). The trip was an eye-opener. While it was on a cool evening during a cool spring, there were still lots of moths flying about that were attracted to lights and rose to bait brewed from bananas and beer.

It took a bit of time before I seriously began to wonder what the mothing was like in our own backyard. Normally, to conserve energy, we leave outside lights off. But I did leave the lights on a few nights in June and kept seeing species we had not seen before. I used my trusty point-and-shoot camera and experimented to learn the best way to take macro photos at night. My goal with each new species was to take a "specimen photo" quickly, which hopefully captured enough key characters to allow identification, before the moth tired of posing and flew off. With those "specimen photos", I was able to start working through available resources and make identifications for some of the moths.

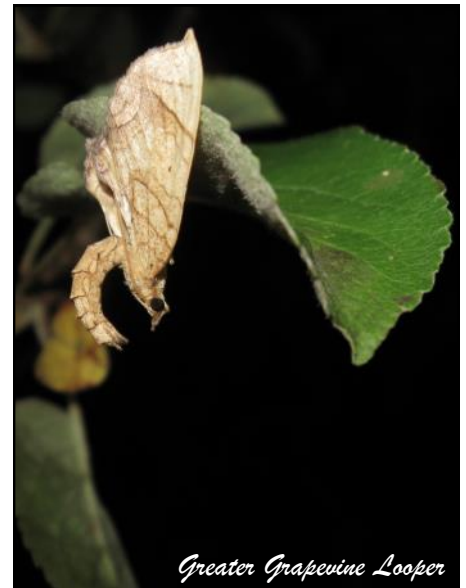
On June 26, the obsession took hold. How many species would come to our outside lights? How many nights in a row could we see a new-to-us species? By this time, Garth had been sucked into the mothing vortex and was helping with photos and identifications. Plus he stays up later, when different species would come to the back-door light. We checked the moths every night until we had photographed what we thought was a new species for the yard.

We photographed at least one new species a day (sometimes eight or ten) until August 17. It took less than a month to break through the 100-species-identified barrier. By August 15, 180 species were photographed and identified. We have identified more than 230 species and there are many photos of species awaiting identification.

Some of them are very tricky, most likely impossible, to do just from photographs. Some of the moths – these are full-grown adults – are less than five millimetres in length. We did not see any of the really big moths but some with wingspans approaching five centimetres stopped by for a visit. Our last moth photograph of 2014, of a Pearly Underwing, was taken on November 2.

Photographing Tips

Photographing moths at night requires that you know your camera and practise with it. Most moths are small and you will want to use some form of macro-photography. Shooting macro at night means using a flash, but most on-board flashes will overpower a close subject so you will have to cut your flash's output with a flash diffuser or by sliding your finger to cover half or more of the flash when you shoot. I use manual focus and set it to the closest focus possible. I then slowly move the camera to that distance from the subject. More often than not, the moth stays put. A monopod can be useful but if not practical, try to stabilize your hands against something solid when you press the shutter. On a good moth night I seemed to spend the whole evening taking photos, coming inside to download and review them on the computer, and then heading back out to check for new moths or to try to get better pictures of the usual suspects.



Mothing at Pointview

We took our obsession on the road to the cottage and came up with a high-tech moth-photographing platform: an up-turned chaise-longue without its mattress. The light is hung from a hoe. The degree of brightness varies with distance from the light. Some moth species preferred to be close while others tucked themselves away in the shadows. (Photo by an incredulous Sylvie Casbourn.)

When taking photos, especially when seeing a species that you think may be a new one for you, your first objective is to get "specimen photos".

These are photos that are in focus and show the features needed for identification.

Hopefully you get can get one or two before the moth decides to move or leave.

This little guy, the Maple Caloptilia, the *Caloptilia bimaculatella*, is about 6 mm long. This is a characteristic posture of moths from the genus *Caloptilia*.



Moth Identification Resources

Moth identification became much easier in our area when the *Peterson Field Guide to Moths of Northeastern North America* by David Beadle and Seabrooke Leckie was published in 2012. This is a must-have book for mothing. Some 1500 of the approximately 13,000 known North American species are included, which is a good sample for getting started. The authors provide excellent tips for beginning moth-ers.

From there it is off to the internet to consult good and expanding moth identification websites:

Moth Photographers Group has been most helpful:

<http://mothphotographersgroup.msstate.edu/Plates.shtml>

Tom Murray's site is a favourite of other moth aficionados: www.pbase.com/tmurray74/moths

David Beadle, one of the field guide authors, is developing a site for Ontario Moths: www.ontariomoths.com/list

BugGuide – best site for all arthropods:

<http://bugguide.net/node/view/82>

Our backyard may have a couple of advantages over other backyards. We have an old McIntosh apple

tree because we live in a part of Westmount that was a commercial orchard before development. Unfortunately, the tree is in decline. Bad for the tree, but the insects and birds are having a field day. Many species of moths seem to like fruit trees. Somewhat serendipitously we have followed one of Paul O'Hara's recommendations from his "Native Plant Gardening" talk to Nature London on February 20, 2015: we have goldenrods, asters, and milkweed in our yard. We also have an abundance of native shrubs and trees for which we are grateful to Pat and Kee Dewdney. Some years ago they raised native trees from seed and then generously gave them to people who would give the saplings a home.

Others have found 500 and 600 moth species in their urban backyards. I am certain that even the most sterile urban yard will attract a surprising number of moths. Going farther afield, especially down by the Thames River, should put even more species in reach of your lens. The challenge for a new urban moth-er is to identify, on average, at least one new species of moth a day.

Good Luck!

(Hugh Casbourn is an acting editor of *The Cardinal*. He enjoys photographing all kinds of insects in his backyard.)



Ancigera Flower Moth



Orange-headed Epicalima



Speckled Xylesthia



Dingy Cutworm



Olive-shaded Bird-dropping Moth



Paulovski's Monopis

Once you are confident that you have a specimen photo, you can try to get more photos to show off the best features of your moth.

These photos were taken by the author using a Canon Powershot A590IS point-and-shoot. While better images are undoubtedly probable with better equipment, you can take images to please family and friends (or perhaps just yourself) with a camera you know well.



Basswood Leafroller



Common Hyppa



THE NATURE LONDON STORY

PART VI: 1990 TO 2014

David Wake and Winifred Wake

Authors' Note: In Parts I to V of this series, we described activities of the precursors of Nature London: the beginnings of the London Branch of the Entomological Society of Canada (Ontario) in 1864, the rise and decline of the four Sections established in 1890, and the 1915 rejuvenation of the McIlwraith Ornithological Club (McIlwraith Field Naturalists from 1965 onward), whose progress was outlined through to 1989.

INTRODUCTION

In the late 1980s the McIlwraith Field Naturalists (MFN) was enjoying a period of unprecedented energy and activity. By 1989, membership had climbed to 436. Two years later, just prior to an economic recession, numbers peaked at 452, then trended downward through the 1990s. By 1996, membership had fallen to 317, where it stabilized for a time before dropping to 304 in 2000. In the new millennium, numbers gradually increased, reaching a high of 386 in 2013.

Lower membership levels created challenges for MFN, especially in finding volunteers to fill executive positions and run the club's many programs. Restructuring in 2004 produced a streamlined Board, which currently consists of ten directors. Twenty-eight additional people occupy appointed positions, and countless more contribute in many other capacities.

Building on a 1980s tradition, MFN organized planning workshops in 1991, 1996 and 2002. At each event, recommendations were developed and, where feasible, later implemented. The most recent workshop took place in 2013; the Strategic Planning Committee and the Board continue to pursue initiatives flowing from that event.

In 2009 MFN adopted a simpler name – Nature London – as the club's new public identity. The McIlwraith name was retained for formal business purposes. In this article, we generally use McIlwraith Field Naturalists (MFN) when discussing events that happened between 1990 and 2009, and Nature London (NL) for later activities.

CORE OPERATIONS AND ONGOING INITIATIVES

In this section we summarize MFN's many core activities, as well as long-term ones that commenced prior to 1990.

Indoor Meetings

MFN met on Fridays (since 1965) at the London Public Library (LPL) (since 1940). This arrangement ended in 1995 when LPL ceased to be open on Friday evenings. Initially, the club moved one block east to First-St Andrew's Church, then to the Civic Garden Complex in 1998. Six monthly meetings are currently held (eight in the early 1990s). Since 2012, non-members have been asked to donate \$5 per meeting attended.

From 1993 to 1999, attendance at meetings averaged 70, but rose to 80 between 2007 and 2013. Turnouts are usually larger for travelogues featuring exotic wildlife des-

tinuations and smaller for members' nights and conservation or environmental topics. Among other program subjects are various types of fauna and general natural history. In 1996 MFN began holding joint January meetings with the London Branch of the Canadian Wildflower Society, always on a botanical theme. The tradition continued until 2008, by which time the wildflower group was no longer operating.

Technology at monthly meetings changed with the times. Carousel projectors were standard equipment in the 1990s. In 2006, the club purchased an LCD projector to facilitate PowerPoint presentations by computer.

Field Trips

Organized field trips under experienced leaders offer instruction on species identification and introduce participants to significant natural areas. In the past 25 years, 20 to 45 field trips have been held annually, with spring being the busiest season. Attendance varies, depending on weather, publicity and general interest in a destination. In 2013/2014, for example, 20 leaders conducted 30 outings and attendance averaged 22, with a high of 50 on January 1 at Springbank Park.

Non-members are welcome on many club outings. Since 2000, however, due to liability concerns, only members can attend field trips to private property and out-of-town destinations. All participants are required to sign a waiver form before setting out.

Cedarcroft has been the most frequent destination for outings (up to five per year). NL's most venerable field trip is the New Year's Day bird walk at Springbank, which hasn't missed a year in four decades. The fall outing to Kettle Point (inaugurated in 1989) has the second-longest continuous record. Several other trips are offered most years: Killaly Meadows (woodcocks), Hawk Cliff (raptors), and Long Point and Aylmer (waterfowl). Additional well-frequented destinations include Fanshawe, Westminster Ponds, Komoka Provincial Park, St Clair River, Hullett Marsh, Sifton Bog, and Meadowlily Woods. Dozens of other sites have also been visited on NL outings.

Most club trips focus on nature in general but a substantial number are devoted to birds, especially during migration. Wildflowers are often the highlight of spring outings. Since 1975 MFN has offered Wednesday evening walks from late April to mid-June. The 1990s saw MFN sponsoring Saturday-morning bird banding demonstrations at Fanshawe. Joint outings are occasionally arranged with



Field trip in the Medway Valley, May 1994. Leader Jack Lorimer is kneeling; Doug Bocking is on right. (Photo by David Wake.)



MFN field trip to the Bruce Peninsula, June 1997.
(Photo by David Wake.)

other naturalists' groups in the region.

During the 1990s, workshops were offered on various topics. In that period MFN also reserved group camping spaces during migration seasons at Point Pelee National Park. Since 2007 the club annually visits the Bruce Peninsula for spring birding weekends.

Birds, Birding and Birding Wing

Birds are a traditional interest for MFN. After the Birding Wing was formed in 1988, many bird-related undertakings came under its auspices. In the 1990s Birding

Wing met monthly at the University of Western Ontario (UWO), moving to the Civic Garden Complex in 1998. Dave Martin lines up speakers on bird topics. Since 2003, Birding Wing has held five monthly meetings (formerly six). Attendance has remained steady over the years, at about 60, but may reach 100 at times.

Since 1983 Pete Read has maintained bird records for Middlesex County and co-ordinated the Christmas Bird Count (CBC). To mark the 100th CBC in London in 2008, a pin was created. In 1990, pins celebrated the 100th anniversary of the Ornithological Section. The county bird checklist is updated regularly, most recently in 2014.

In the 1990s, MFN members were active in delivering field birding courses through the continuing education programs at Fanshawe College and UWO. More recently a club member has been offering spring and fall birding courses through the London's Parks and Recreation Department. Birding Wing strives for a good representation of bird outings on the club's field trip roster.

The London Birding Line was launched in 1993 to provide record-

ed phone messages telling where to find interesting birds. In 1998, this became the Nature Line and now delivers weekly updates on nature sightings and NL activities.

A June Breeding Bird Census along the Thames River continued until 1992. In the early 2000s, MFN members were very active in the Ontario Breeding Bird Atlas project. Many also take part in population-monitoring schemes, including FeederWatch, the Breeding Bird Survey, and the Great Backyard Bird Count. Nature London members participate in the Baillie Birdathon each spring, raising funds for Bird Studies Canada and the club. Several young London birders have benefited from the Doug Tarry Young Ornithologists' Workshop at the Long Point Bird Observatory.

Many local birders use eBird and the regional Listserv, an electronic forum for posting natural history sightings in Middlesex, Elgin and Oxford counties.

Conservation Activities

At the beginning of the 1990s, MFN's Conservation Committee had up to ten members, and a bulging dossier of issues. Not much has changed, except the name (now the Conservation Action Committee).

In the 1990s MFN continued to seek funding and provide management for life science inventories – e.g., Wyton Station Woods (1993) and Dingman Creek (1994). Hands-on activities included loosestrife pulls, removal of Gypsy Moth egg cases from tree trunks, and the re-naturalization of lands along the Highbury Avenue hydro corridor.

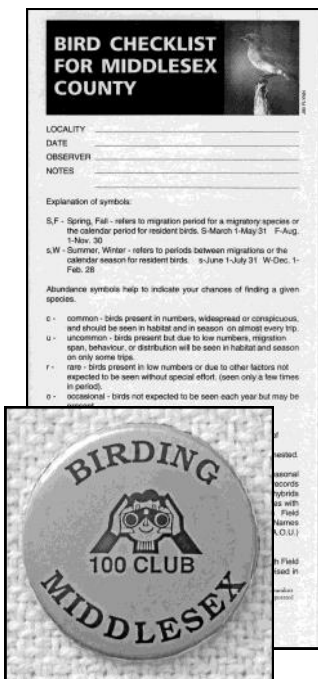
The monitoring of activities at City Hall, however, remained a primary focus. The City's 1990 Official Plan was the first to provide protection for designated Natural Areas (now called Environmentally Significant Areas – ESAs). Five sites were on the list – Sifton Bog, Warbler Woods, Westminster Ponds, Meadowlily Woods, and Medway Valley. Others were added later. An advisory committee was formed in 1992, but City Hall culture excluded the committee from the decision-making process. Finally, in 1993, 16 years after MFN first began urging formation of an ecological advisory committee, London's first Environmental and Ecological Planning Advisory Committee (EEPAC) was formed.

Buoyed by this success, some in MFN began talking of redirecting club efforts to focus on education, since protection of natural areas now seemed secure. Yet in 1995, MFN President Rosemary Kelley stated "Our conservation team is spending more and more time at City Hall trying to protect our ESAs and shrinking natural areas."

What went wrong?

Alas, MFN had discovered that designation as a protected area is merely a starting point. Many threats continue from development proposals, as well as management policies and activities. Insistent and ongoing advocacy may result in some actual protection but there are no guarantees. Read on for a very small sampling of the conservation issues addressed by MFN in the past quarter-century.

MFN's conservation file contains many recurring themes. For example, in 1990, City Council passed a by-law prohibiting paved bicycle paths in the Medway Valley; 25 years later MFN is still actively opposing bicycles in ESAs. Another recurring theme is stormwater management. In 2011, a stormwater facility was constructed partially within the Medway Valley Heritage Forest ESA.



This Middlesex County bird checklist (top) was compiled in 1996. The new 2014 checklist is available on the Nature London website (under Publications). Buttons were awarded to anyone who recorded 100 species of birds in Middlesex County in 1990.

Despite safeguards in municipal and provincial policies, constant vigilance by the conservation community is required.

Early in the 2000s, MFN members began registering concerns over the excessive cutting of “hazard trees” near trails in ESAs. Over time, the City and Upper Thames River Conservation Authority (UTRCA) began to recognize the wildlife value of such trees and, since 2013, tree cutting in ESAs has been reduced.

Design and management of trails in ESAs remains an important issue. MFN worked with City staff and other community groups to develop a trails’ standards document, which was approved by City Council in 2012.

In the early 1990s, *vis-a-vis* a new subdivision near Killaly Road, MFN urged the City to protect a provincially rare Black Maple stand and a nesting colony of Bank Swallows bordering the river. The swallow habitat was destroyed, but 40% of the Black Maple stand was preserved.

Although ESAs had been granted protection in the Official Plan, other natural areas remained vulnerable. Advice and support from MFN helped neighbourhood groups protect or partially protect Highland Woods (1994) and Clara Brenton Woods (1999), though efforts were unsuccessful for a Teeple Terrace woodlot (1992).

In 2006, City Council approved criteria for the designation of Significant Woodlands. Over the next five years the development community launched a series of appeals in an unsuccessful attempt to have the decision overturned. During this period, to bolster the likelihood that City policy would be upheld, Sandy Levin retained a lawyer and a planner to testify before the Ontario Municipal Board (OMB), and MFN assisted with fundraising.

Following is a brief summary of some ESA-related issues addressed by MFN since 1990.

Medway Valley Heritage Forest. MFN activity on behalf of the Medway has continued almost unabated for more than 25 years. Among issues of concern are trail footprint, too-easy access to sensitive areas, sewer lines in the valley, re-naturalization, appropriate setbacks and buffers, paved and unpaved roadways, and proposals for creation of a paved bicycle transportation corridor with multiple bridges. Despite stalwart efforts by MFN and others, since the Medway was accorded protection as an ESA, it has experienced a very significant amount of City-approved damage and degradation. Nature London is currently participating in development of a new Conservation Master Plan for the Medway ESA.

Sifton Bog. For more than half a century, protection of



1993 Conservation Award winners. Left to right: Anne Hurd (for exceptional leadership), Maaiké Froelich (for Sifton Bog protection) and Rosemary Dickinson (for environmental activism). (Photo by David Wake.)

Sifton Bog has been on MFN’s radar. Issues since the 1990s include invasive species, buffers, drainage into and out of the wetland, proposals for adjacent high-density development (MFN aided neighbourhood groups in an OMB challenge, 1994), high deer numbers causing damage to sensitive vegetation, and the need for regular water monitoring (finally implemented in 2014). MFN members helped shape the Conservation Master Plan for Sifton Bog that was approved in 2009.

Kains Woods. In the mid-1990s, MFN unsuccessfully opposed the Oxford Street extension across the Thames River near the Hunt Club. The new road alignment cut a broad swath through the core of the forested lands along the west bank of the river. Having sponsored an earlier Life Science Inventory of the area, MFN monitored ESA protection related to the RiverBend development. In 2007, a narrow woodland corridor beside the river was opened to the public as Kains Woods ESA. In 2013, MFN participated in a group that provided advice to City staff regarding ways to reduce the environmental impact of the Kains Woods trail.

Westminster Ponds / Pond Mills. Westminster Ponds was a major MFN focus in the 1990s, first when a development scheme (eventually rejected) for lands northwest of Southdale Road and Adelaide Street went to an OMB hearing. In the late 1990s MFN took a lead role in opposing proposals by local hospitals to develop lands (including forested areas) north of Saunders and Spettigues ponds. The club engaged community groups, secured financing, and retained a lawyer to help make the case for protection of the ESA. In 2000, City Council approved a plan that addressed most of the concerns of the environmental community. MFN served on the advisory committee that helped prepare the updated Conservation Master Plan (approved in 2005). Since 2013, the club has been providing input to an ecological inventory and the development of recommended management zones.

Meadowlily Woods. In the 1990s Meadowlily was bisected by the construction of a storm sewer extending from the Summerside development to the Thames, but a proposal for a football stadium adjacent to the ESA did not go ahead. Management issues of current concern include inappropriate uses and trail degradation. At present, Nature London is participating in the process leading to an update of the Conservation Master Plan.

Additional Issues. MFN has been active on matters relat-



MFN members study a map in the Kains Road area (April 27, 1991). **From left:** Dorothy McCallum, Anne Hurd, Sharon Critchley, Cathy Quinlan, Winifred Wake, John Critchley. (Photo by David Wake.)

ing to Komoka Provincial Park and sits on the Middlesex County Woodlands Advisory Committee (with a special interest in Skunk's Misery). The club has also taken action on numerous other topics of conservation interest, e.g., Summerside wetlands, encroachments, UWO / Gibbons Park wetland, Thames valley corridor plan, forestry policy, mining in protected parks, Provincial Policy Statement review, Planning Act revisions, and Official Plan amendments and updates.

Speaking up on behalf of species, habitats and natural areas in need of protection is ongoing and not for the faint of heart. MFN and London are privileged to have such a dedicated Conservation Action Committee in place. New members and more help are always welcome.

Community Engagement

MFN's Education Committee organized annual Exploring Spring courses (four lectures, four field trips, \$60 fee) at Fanshawe College until 1995, when public interest waned. Exploring Spring was last offered (free) at the London Public Library in 1998.

MFN provided leaders for nature walks in ESAs during Environment Week in June 1990. Throughout the decade, club members conducted tours of London's ESAs each fall for Natural Areas Day (later renamed Nature Nearby). In 2003 Doors Open London began including MFN-led ESA walks in its program. Such events were popular with the public: for example, in September 2001, 700 people came to Westminster Ponds. In 2009 MFN participated in Ontario Nature's Nature Discovery Family Day at Springbank Park.

An MFN representative serves on the London Advisory Committee on Heritage (LACH). To launch Heritage Week in 1995, MFN arranged a five-speaker event highlighting the Thames River. The club actively supported the community campaign to have the Thames designated a Heritage River (achieved in 2000). It also participated in the 1996/1997 Celebrate the Thames initiative by offering a dozen field trips along the river, co-sponsoring a two-day conference (Focus on the Thames), and helping to publish the proceedings (see cover at upper right).

In 1999 MFN organized the annual provincial conference of citizen representatives to municipal environmental advisory bodies (e.g., EEPACs), which attracted 80 delegates. To celebrate the millennium and Earth Day in 2000, MFN hosted a public lecture by Michael Runtz at Fanshawe College (attendance of 175).

In 2005 and 2006 MFN assisted the Rotary Club of London West in its Walk on the Wild Side walkathon at Westminster Ponds. From 2010 to 2013, NL partnered with the Rotarians in a plank project that raised thousands of dollars for construction of boardwalks at Westminster Ponds.

During the past quarter-century MFN has made generous donations to many worthy causes. Projects supported include a Lambton County insect study, publication of photo field guides, a prairie planting at Sharon Creek, a Warbler Woods bird study, purchase of conservation lands, and initiatives of Carolinian Canada and the Federation of Ontario Naturalists (FON).

Several MFN members are available to deliver talks and lead field trips for community organizations. Portable displays on nature topics have been mounted at various city libraries. In recent years, MFN has been educating Londoners through articles on nature and conservation in the *Londoner*. For decades MFN's sales department has carried items such as nature-themed cards, calendars, T-shirts, posters, and books. Sales not only raise funds for the club but the products serve outreach and educational purposes.

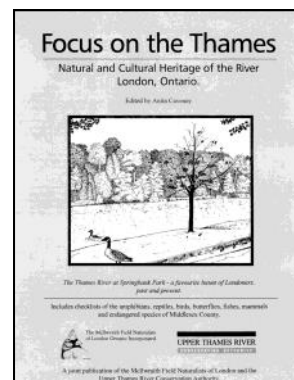
Many club members participate in monitoring and atlas projects (e.g., marsh monitoring, lady beetle surveys, and mammal, tree, and reptile and amphibian atlases).

Publicity

Publicity for MFN events includes a weekly recorded telephone message and notices in newspapers and other local media. When opportunities arise, display panels are set up at public venues and events.

In 1997, MFN acquired its first web presence, which was followed by a number of years of growing pains. The Nature London website has since matured and become an excellent source of information about the club's activities. More recently, a Facebook presence has been added.

During the 1990s a general MFN promotional brochure was available, and sheets listing upcoming field trips and meetings were often distributed to non-members on field trips. Since 2003 a club brochure that includes meetings and field trips has been available (now updated twice a year).



Left: Barbara Bain prepares to lead a hike at Westminster Ponds for Natural Areas Day, October 1993. (Photo by David Wake.)

Right: Part of the crowd gathered for the opening of the new Rotary Club of London West boardwalk at Westminster Ponds, October 2002. (Photo by David Wake.)





From left: Frances and Bill Girling, Rosemary Kelley, and Eileene and Bill Stewart, recipients of W.E. Saunders Awards at the 1996 banquet. (Photo by David Wake.)

Conservation Awards Banquet

An annual banquet in November brings club members together for a fine meal, a notable speaker and the opportunity to recognize significant contributions to the environment. Conservation certificates are presented annually and, when suitable candidates are identified, W.E. Saunders and Special Recognition awards are given out. Since 1990, banquets have been held at the Ivanhoe, the German Canadian Club, Wesley-Knox Church, the Lamplighter, the Civic Garden Complex, Fanshawe College and the Hellenic Centre. In the early 1990s, banquet attendance approximated 200; in recent times 115 is a more typical number. From 1990 to 2014, ticket prices rose from \$25 to \$35. Bucket raffles and silent auctions help subsidize banquet costs.

The Cardinal

The Cardinal appears four times annually, for a total of 100 issues, two supplements, and 4000 pages since 1990. Length and sophistication have grown steadily, and individual issues now frequently run to 48 pages. In this period the magazine has been edited by two husband-and-wife teams (transition in 2004), assisted by an editorial committee. *The Cardinal* offers a wide range of content on natural history and conservation, with a strong emphasis on local and regional material.

In the past quarter-century the magazine has undergone many production changes. The early 1990s saw illustrations and typewriter-derived text pasted onto master sheets by means of an electric waxer and a light table. Printing was courtesy of Hearn Kelly. Volunteers collated and stapled each issue, stuffed envelopes and added address

labels. Saddle-stitch binding was adopted in 1993. In 1990 *The Cardinal* obtained second-class postage privileges, enabling it to be mailed at very low cost for many years. Today, an agreement with Canada Post governs mailing arrangements.

Since the late 1990s, magazine production has become increasingly reliant on computer technology for editing, layout, database storage of graphics, and electronic submission to M&T Instaprint, the printer since 1993. From 2006 to 2013, paid advertisements in *The Cardinal* generated revenue that was applied to printing and mailing costs.

Relations with the Federation of Ontario Naturalists

Since the Federation of Ontario Naturalists (from 2004, Ontario Nature) was formed in 1931, MFN has been a strong supporter. In the early 1990s, two past presidents of MFN became FON presidents: Mary (Kerr) Smith and John Cartwright. Each spring and fall, representatives from Nature London meet with other Ontario Nature member groups at the Carolinian West regional council. Here the club is kept well informed about provincial issues.

Ontario Nature provides leadership on parks and protected areas, land-use planning policies and conservation science. Some major initiatives are undertaken as collaborative efforts. In 1997, for example, FON joined with the World Wildlife Fund and the Wildlands League to form the Partnership for Public Lands, which campaigned for completion of the provincial parks system. In 2007, Ontario Nature urged greater protection for species at risk through a new, stronger Endangered Species Act. Six years later, together with Ecojustice and the Wildlands League, Ontario Nature launched a lawsuit against the provincial government to oppose industry exemptions to the Endangered Species Act. Nature London vigorously supports these and many other Ontario Nature initiatives.

Cedarcroft

At MFN's nature reserve, club members enjoy hikes, picnics and work days. They participate in re-naturalization of selected areas; and trail, cabin, fence and infrastructure maintenance. In a property of woodland ravines, repair and replacement of bridges is ongoing. In the early 2000s, volunteers with FON's Working for Wilderness program built two bridges. The pond, culvert and standpipe require attention at intervals. Bird feeders near the cabin were kept filled each winter until 2006. A prolonged boundary dispute with a neighbour was resolved in 1992.



Left: At the Hearn Kelly Printing Company plant, Barb Yeo seals envelopes to ready the freshly collated *Cardinals* for mailing, 1992. (Photo by Anita Caveney.)

Right: In the fall of 1995 a joint MFN and West Elgin Nature Club field trip included a visit to Cedarcroft and its new bridge. (Photo by David Wake.)





Ann White (facing) leading a group at Cedarcroft, June 10, 1990. (Photo by Barbara Bain, NL archives.)

In 2014, a brochure containing a map of Cedarcroft's trails was produced and a significant planting of Carolinian trees was undertaken. Cedarcroft is managed by a hard-working committee, which is currently updating the property's management plan.

Junior Naturalists

The Junior GNats program flourished throughout the 1990s. One indoor and one outdoor event were held each month. Indoor meetings often involved crafts or a speaker from the senior club. Occasionally bus trips were organized (e.g., Guelph Arboretum and Toronto Zoo). The GNats met in a succession of places, including an office space, Fred and Jean Heagy's basement, the coach house at Grosvenor Lodge, St Jude's Church, the Montessori School on Victoria Street, and the Landon Library.

In January 1993, membership in the Junior GNats stood at 29. A field trip to Westminster Ponds attracted 50 participants, including helpers and parents. At the MFN annual meeting that spring, 12 juniors received certificates for successfully completing the FON BirdQuest program. In 2000 three members attended FON Young Naturalists Summer Camps in Haliburton, two of them supported by MFN's Cummings Scholarships.

By summer 2000, the Gnats were suddenly leaderless, and the highly successful program of 23 years folded. Later efforts to revive the group came to naught.

Despite setbacks, NL remains committed to encouraging junior naturalists. For many years family bug walks were held at Meadowlily Woods. The club sponsored a teenaged member at Ontario Nature's Youth Summit in Orillia in 2013. In December 2014, the first annual Christmas Bird Count for Kids was organized.

Trees for London

Through the 1990s, Trees for London raised funds for tree planting. A 1990 project celebrated heritage trees through a plaque program. In 1993, the City assumed responsibility for memorial trees, and Trees for London began to focus on habitat restoration plantings. The first such event took place at Greenway Park in April 1994, when 500 trees



The Bur Oak at the southwest corner of the Oxford Street bridge, 1992. The tree was marked with a heritage tree plaque (inset) in 1990 through a program of Trees for London and the Public Utilities Commission. (Photos by Anita Caveney.)

and shrubs were planted.

The committee's founding chairperson, David Thomson, died in 1996, leaving a legacy of tree, shrub and wild-flower plantings in the public spaces of the City. Mary Kerr became chair and the work of Trees for London continued. By 2005, the MFN Board recognized that organizations such as Reforest London were better positioned to carry on the work, and a final planting ceremony was held at Greenway Park in April 2006.

In 22 years, Trees for London raised tens of thousands of dollars, greened the City with native plants, naturalized parks and boulevards, initiated a renewal of London's tree canopy, and educated Londoners on the value of native trees.

Archives

In 2006, after 40 years at the helm, Bill Judd retired as MFN's founding archivist. In addition to other contributions, from 1992 to 2002 he produced ten volumes of annotated minutes of MFN's regular club meetings, covering the years 1920 to 1969. In 2005 he published a catalogue of the meetings of the Birding Wing from 1988 to 2004.

The current archivists, while continuing to add to the fonds (i.e., collections) and responding to inquiries, are digitizing accession lists and descriptions, transferring materials to acid-free storage containers, and reorganizing the fonds according to currently accepted practices. From time to time, lectures have been given and displays relating to club history have been mounted. The MFN archives are housed in a restricted-access area of the London Room at the London Public Library. By the end of 2014, the master catalogue listed 725 accessions, many of which include multiple items.

W.E. Saunders Memorial Library

For many decades MFN has been contributing funds to purchase books and other materials on nature and environmental topics for the London Public Library. The club currently donates \$1000 per year, half being directed towards children's material. In 2000, MFN provided volunteers and financial support for LPL's children's summer reading program on the theme of bugs.

NEW INITIATIVES COMMENCING IN THE 1990s

1990 Celebrations

In 1990, MFN celebrated the 100th anniversary of the founding of the Ornithological Section of the Entomological Society. A highlight was the installation of a plaque honouring W.E. Saunders, the founding chair, at Westminster Ponds.

Junior naturalists admire a cake celebrating 100 years since the founding of the Ornithological Section, predecessor of MFN. (Photo at Cedarcroft, June 1990, by David Wake.)



Other anniversary projects included a ceremonial tree planting and birthday party at Cedarcroft, the creation of items bearing the cardinal logo, the construction by the Junior GNats of a bird feeder for Cedarcroft, and the presentation of Cummings Awards to two local schools in recognition of environmental projects carried out. The biggest undertaking of the year was hosting a five-day Canadian Nature Federation conference at UWO, attended by 200 delegates from across the country. In November 1990, Professor Thomas McIlwraith addressed MFN on the life of his great-grandfather, pioneer ornithologist Thomas McIlwraith, after whom MFN was named.

Grosvenor Lodge

From time to time, MFN considered the possibility of renting a space that could be used for Board and committee meetings, and as a home for the junior club. In 1992 a coalition of heritage and environmental groups began operating Grosvenor Lodge as a public centre. Buoyed by financial health and peaking membership numbers, MFN rented the upper floor of the property's coach house and moved in in July 1992.



Exhibits in the Junior Gnats' clubhouse at Grosvenor Lodge coach house, November 1992. (Photo by David Wake.)

The coach house proved to be a great success. The GNats were delighted to have a "clubhouse" where their belongings could be left between meetings, and senior club members enjoyed having a "boardroom" available. Unfortunately the move came at a time of economic downturn, just as a significant decline in club membership and revenues was getting underway. Almost immediately, the monthly rental fee and the expectation of involvement in general Lodge activities became burdensome. Despite several renegotiations, the MFN Board terminated its relationship with Grosvenor Lodge in early 1996.

The McIlwraith Field Naturalists Foundation

Following background work and legal advice, the MFN Board launched the McIlwraith Field Naturalists Foundation of London, which was incorporated in September 1990. The hope was that a foundation would prove beneficial in raising funds for projects related to conservation and natural history education.

The new foundation had a very short life. Early on, some MFN Board members expressed doubts about the value of a separate organization. It was eventually determined that there was no advantage and, in June 1991, the MFN Board voted to dissolve the foundation.

Turtle / Reptile Initiatives

From 1994 to 1999, MFN partnered with the Upper Thames River Conservation Authority to study and protect the Eastern Spiny Softshell turtle. MFN helped develop proposals, sought funding and provided general oversight. Club members assisted in educational endeavours, nest protection and enhancement of nesting habitat. The project soon also included Queen Snakes and landowner stewardship. Between 1996 and 1999, MFN was successful in obtaining more than \$100,000 in grants to support the work of the turtle team at UTRCA.

In 2002, the club again partnered with UTRCA to carry out research, conservation and education on four species of at-risk reptiles in the Upper Thames watershed. During the next five years MFN secured a total of \$155,000 from the Trillium Foundation. In addition to obtaining funding, MFN oversaw its wise expenditure and ensured quality reports were submitted.

Project Peregrine

When wild Peregrine Falcons began appearing in London in the mid-1990s, a steering committee was established and a gravel-lined nest tray installed on a ledge of the City Centre tower. MFN's Pete Read assumed a prominent role in ensuing activities. For a decade, he annually assembled volunteers to monitor peregrine activity, carry out educational functions and engage in protective actions when needed.

From dawn to dusk during the crucial few weeks each year when young peregrines were developing flying skills, monitors were stationed on the ground or high up in One London Place to track the whereabouts of the youngsters. Whenever a young falcon got into trouble, trained volunteers raced to the scene, scooped it up and carried it via elevator to the roof of City Centre, where it was released.

Media and public interest in the peregrines was high. In the late 1990s open houses staffed mainly by MFN members attracted up to 700 people per event. Visitors viewed activities on the nest ledge through telescopes set up on an upper floor of One London Place.

Dozens of MFN volunteers participated in Project Peregrine, educating the public and adding 20 healthy young peregrines to the population. Although Peregrine Falcons continue to be present in downtown London, no young have been raised since 2006.

Guide to Natural Areas

In the early 1990s MFN periodically considered publishing a guide to local natural areas. A 1994 donation from the Hunt family provided seed money and Shirley Lorimer was appointed editor. In 1995, 400 copies of the 70-page book were printed and priced at \$3 each. In 1996, 800 copies of the second edition went on sale for \$5 each. By early 1998 MFN had realized a profit of \$2000. A third edition, with an initial print run of 1000, appeared in 1999. The fourth edition (2000 copies) followed in 2007; for the first time, a coloured cover was featured but the price remained at \$5. During 2014, new editors commenced work on a fifth edition. In the 20 years since MFN's *Guide to the Natural Areas of London & Vicinity* came into being, the book has been a fine fundraiser and outreach tool.



Project Peregrine at One London Place. **Left:** Peregrine Falcon chick, newly banded in the boardroom. **Centre:** An empty office in One London Place was made available to birders; telescopes were set up for watching the peregrines on the nest. Sifton Properties Ltd was given an MFN award in 1998 in appreciation. **Right:** Banders, including Ministry of Natural Resources staff and Don Fowler of the Hawk Cliff raptor banders, ascending by window-washing platform.

(Photos by Spencer Inch, July 1996. Nature London files.)

Butterfly Count

In 1996, butterfly record keeper, Ann White, brought MFN back to its entomological roots when she organized MFN's first butterfly count. Initially, counters visited sites around Middlesex County, confirming southwest Middlesex as a butterfly hotspot. A checklist was compiled in 1996 and updated in 2000. The next year the annual Skunk's Misery Butterfly Count was launched, following criteria specified by the North American Butterfly Association. Counts conclude with a potluck supper and social gathering. Over the years the number of participants has increased and the skill level improved – 41 observers recorded 55 species in 2014.

NEW INITIATIVES COMMENCING IN THE 2000s

Thames Talbot Land Trust

The mid-1990s were challenging times for the environmental movement, as government support withered. One response explored by members of MFN in the late 1990s was the establishment of a trust to protect conservation lands. MFN played a pivotal role in the birth of the Thames Talbot Land Trust (TTLT) – officially launched in 2000 – serving as a leading partner until TTLT achieved incorporation and charitable status. The club helped secure initial funding from the Trillium Foundation and provided significant financial support during the trust's early years.

The two organizations continue to maintain a close working relationship. In 2002, when TTLT received its first property donation, Meadowlily Nature Preserve, MFN contributed to the stewardship fund. Since then, MFN has donated to many TTLT acquisitions, including the Tanager Tract, Wardsville Woods, and the Lusty Family Tract.

Inch Bequest

After the deaths of two former club presidents, Spencer and Helen Inch, in 2001 MFN received a bequest of \$136,000. The club donated a total of \$40,000 to UTRCA in four yearly instalments to support community forestry and re-naturalization efforts. A gift of \$94,000 went to the Thames Talbot Land Trust to assist with purchase of Joany's Woods, an extensive tract of natural habitat bordering the Ausable River.

Chimney Swift Initiatives

In 2004, MFN volunteers monitored Chimney Swift

roosts during fall migration and launched SwiftWatch. In subsequent years the program also identified nesting chimneys, monitored breeding-season roosts, contacted land-owners, created educational materials, and refined protocols. Administration of the many-faceted program proved time consuming and, in 2008, Bird Studies Canada agreed to assume management of most aspects of the London initiative and adopted the SwiftWatch name. Before long, however, BSC drastically scaled back its involvement in London programs, and these have since operated at a much reduced level.

At present, Nature London carries out a limited agenda of swift initiatives, under the direction of a Chimney Swift liaison. One undertaking involves collaboration with wildlife rehabilitation facilities to arrange optimal release sites for hand-reared swifts, which now regularly come to London from as far away as Ottawa and Québec.

Nature in the City Public Lecture Series

In 2006, MFN partnered with the London Public Library to launch Nature in the City, a free six-week series of talks on nature aimed at the general public. Nature London organizes the program and handles publicity, while the library prints flyers and provides the venue. Two features of the series stand out: all speakers donate their services free of charge, and Nature London's volunteers work tirelessly to tap into free publicity and ensure large audiences.

The first year, attendance averaged 63, then doubled in year two, necessitating a change from the Stevenson-Hunt Room to the Wolf Performance Hall. By 2010, an average of 260 people came out each evening. Attendance peaked at over 300 in 2012 and 2013. Many audience members are not members of Nature London, though 62 have joined since 2010 through a membership incentive. The series has been very effective in raising Nature London's profile and communicating the conservation message.

150th Anniversary

During 2014, Nature London celebrated 150 years since the 1864 founding of its original ancestor, the London Branch of the Entomological Society of Canada. Many events were held throughout the year, including heritage field trips, an anniversary lecture, special talks, an exhibit at Museum London, an anniversary banquet, plaque unveiling, tree plantings, and numerous articles in *The Cardinal* and elsewhere.

CONCLUSION / LOOKING FORWARD

As we look back over 150 years, there is one recurring theme: it is the imagination, energy and untiring efforts of the members that have made the group successful. The concept of volunteerism may not have been recognized as such in 1864, but it is clear that the work of unpaid amateurs founded the London Branch of the Entomological Society and kept its successors going through 15 succeeding decades.

Through six articles, we have highlighted some of the activities, events, and accomplishments of Nature London and its predecessors. We have also touched on the important contributions of a few key people, but there are many other heroes.

Today, most members of Nature London are over 50, but many of us still have productive years ahead of us. In addition, promising younger naturalists in our ranks inspire us as we look to the future. There will continue to be friendships to share, nature to enjoy, and citizen-science projects to undertake. There will also be policies and legislation to review, community members and politicians to engage and educate, and species at risk and threatened hab-

itats in need of defenders. Happy 150th Nature London, and many happy returns!

(Winifred and David Wake are among those "many other heroes" of Nature London. Had they been inclined to include them, their names would have been associated with many of the initiatives described in this article. This history series was originally planned as three instalments but the story of the club required more space. The club owes the Wakes a large debt of gratitude for their enormous effort in creating this comprehensive history of Nature London's 150 years.)

SOURCES

Our main sources for this article have been *The Cardinal*, MFN minutes (of Board, committees and general membership meetings), and annual reports. We have also consulted numerous miscellaneous documents in the Nature London archives and elsewhere. Additional information came from our own memories and personal files.

(All uncredited images from the Nature London archives.)