

DW^{The}Wood Duck 1

Volume 64 Number 1

September 2010



It's been a wonderful summer full of steamy temperatures, sunny days, and lots of things to do outdoors. I hope you all found the opportunity to get outside and enjoy all the wonders nature has to offer. I know some of you even found the time to get out for a walk that benefits our natural areas. See related article, page 7.

Photo: Tracey Conley

HNC BOARD 2009-2010 - Executive

Past-President: Jim Stollard
905 634-3538 jjstollard@sympatico.ca
President: Bill Lamond
519 756-9546 bill-lamond@hotmail.com
Vice-President: Kelly Pike
905 387-3439 kpik78@gmail.com
Secretary: Joyce Litster
905 627-1203 jlister4@cogeco.ca
Treasurer: Jim Heslop
905 648-5770 heslop@cogeco.ca

Directors

Bird Study: George Holland
905 945-3962 geholland@cogeco.net
Conservation and Ed.: Terry Carleton
905 515-4101 terry.carleton@utoronto.ca
Field Events: Elaine Serena
905 639-2702 eserena@cogeco.ca
Director-at-Large: Gord McNulty
905 525-9927 gmcnulty7@gmail.com
Membership: Tara Nelson
905 333-0577 nelsontarae@hotmail.com
Program: Diane Green
905 827-4662 episciaflower@gmail.com
Publicity: Roger Benson
rbenson@mountaincable.net
Sanctuary: Michael Fischer
905 526-0325 fishermj@sympatico.ca
Volunteer: Kevin Wright
905 560-1559 ktwright0@hotmail.com
Wood Duck Editor: Tracey Conley
905 902-9451 wood_duck@bell.net

Coordinators

Website Coordinator:
Stephanie Cumerlato webmaster@hamiltonnature.org
905-529-4327
Bird Study Group Leader: George Holland
905-945-3962 geholland@cogeco.net
Social Coordinator: Tony Scacchi
905 544-5843
Jr. Nats. Coordinator: Heather Andrachuk
905 616-6391 heather.andrachuk@gmail.com
Mailing Coordinator: Jean Stollard
905 634-3538 jjstollard@sympatico.ca
Land Trust Program Coordinator: Jen Baker
905-524-3339 land@hamiltonnature.org
Birding Hotline: 905 381-0329

Send Noteworthy Bird Records to:

Rob Dobos, 21 Sunrise Cres., Dundas. L9H 3S1
rdobos@cogeco.ca

MEMBERSHIP FEES 2009-2010

Life Membership	\$750.00
Single Membership	35.00
Senior Single Membership	30.00
Student Single Membership	30.00
Senior Joint Membership	35.00
Student Joint Membership	35.00
Family Membership	40.00
Junior Naturalists - first child	65.00
Junior Nats - additional children	55.00
Honorary Life Member	None

Please remit to: The Membership
Director, Hamilton Naturalists' Club
P.O. Box 89052, Hamilton, Ontario
L8S 4R5

The Wood Duck is published nine times
a year September to May, inclusive, by:

The Hamilton Naturalists' Club

Westdale P.O. Box 89052
Hamilton, ON. L8S 4R5

Editor: Tracey Conley

9A-67 Caroline St. S. Hamilton, ON
L8P 3K6

HNC PUBLICATIONS

<i>Hamilton Nature Counts 2003</i> (2 volumes - 85 with shipping)	75.00
<i>Checklist of the Birds of Hamilton-</i> <i>Wentworth</i>	2.00
<i>Date Guide to Birds of Hamilton-</i> <i>Wentworth</i>	1.00
<i>Naturally Hamilton: A Guide to the</i> <i>Green Spaces of Hamilton-Wentworth</i>	Free
<i>Head-of-the-Lake Pocket Nature Guide</i> regular 8.00; for educators 5.00	
<i>The Habitats of Hamilton and Halton Poster</i> regular 4.00; educators 3.00	
<i>A Monthly Guide to Nature and</i> <i>Conservation in Your Area</i> regular 5.00; for educators 3.00	
<i>Hamilton Mammal Atlas</i>	15.00
<i>Birds of Hamilton and</i> <i>Surrounding Areas</i>	60.00

To order HNC Publications
contact Alf Senior
Phone: 905-527-0905 or
E-mail: senioralfred@yahoo.ca

The Wood Duck

Volume 64 Number 1

September 2010

CN ISSN 0049-7886

Publications Mail Contract No. 40048074

Publications Committee: Rob Dobos, Bill Lamond, Diane Green, Don McLean, Mike Fischer, Jean Stollard, Susan Doka and Kelly Pike.

The Wood Duck is the official publication of the HNC, produced by volunteer members of the Club and printed on 100% recycled paper. Deadline for receipt of material is the twelfth of the month preceding publication date. Articles may be reprinted without permission but credit lines must be included. Opinions expressed in *The Wood Duck* are those of the author and do not necessarily reflect those of the editor or of the Hamilton Naturalists' Club.

The Hamilton Naturalists' Club promotes public interest in the study, conservation and appreciation of our natural heritage. Meetings are held monthly September to May inclusive and field events are scheduled throughout the year. Visitors are welcome. The Hamilton Naturalists' Club is a registered charity and all donations as well as membership fees are tax deductible.

web: <http://www.hamiltonnature.org>

email: info@hamiltonnature.org

Do Flowers have Niches?

Revisiting Darwin's 'Abominable Mystery' with Spring Ephemeral
by Stefan Weber

Photo: Rue Anemone by Stefan Weber



"Nobody sees a flower really; it is so small. We haven't time, and to see takes time..."-Georgia O'Keefe

Some say spring starts with the vernal equinox. Some look for returning birds, or daytime high temperatures. For me, it's not really spring until you see a wildflower. This year at Spooky Hollow Nature Sanctuary, spring started on March 28th with a sunny patch of Colts Foot (*Tusselago farfara*) welcoming eager visitors at the south entrance. By April Fool's Day the Hepticas had begun, followed soon by the Claytonias. In forests across Southern Ontario, there are over 50 species of native understory plants that flower before the trees above have a chance to fully spread their leaves.

Early spring flowers are often short lived, or ephemeral, but can play a large role in maintaining ecosystem health. They can act as a 'vernal dam', slowing the loss of nutrients flushed from the forest floor with the snow melt and spring rains. They also provide early food sources for pollinating insects.

These early bloomers may be particularly susceptible to climate change as well as declines in native pollinators. We know that fewer pollinators means fewer flowers are being pollinated, but we don't know how these changes will reflect in the entire plant community.

The first step in conserving biodiversity in the landscape is to understand the mechanisms that generate and maintain it. Plants that co-exist in a community

may be linked through their shared interactions with pollinators and therefore, local extinctions may have cascading effects on the rest of the community. It's also possible, that interactions with pollinators are not important among community members, and plants will respond independently to pollinator declines. Currently, the role of pollinators in maintaining community composition is unknown.

This problem led me to start a Master's thesis project last fall at the University of Guelph. In doing so I found (to my advisor's delight) that I would have to re-open some long standing debates in ecology and evolutionary biology.

Despite the advantages of flowering in abundant light that would otherwise be intercepted by the canopy above, spring ephemerals risk low temperatures that bring damaging frosts and low pollinator activity. Relative to other wildflower communities in the region that may not be limited by pollination, the act of flowering plays a particularly important role in the life history of spring ephemerals. Plant communities are typically thought to assemble out of competitive interactions for water, light and other abiotic resources. Some species are better competitors in wet environments, others in dry, for example. These patterns are sometimes obvious, as they also reflect changes in the environment such as disturbance or undulating topography. Though harder to visualize, we know that plants interact for animal pollinators as well, but we don't know if this influences which species co-exist together

and form communities.

Flowers represent part of a plant's ecological niche. They represent both a group of traits which are adapted to thrive in a particular environment, and a group of traits which distinguishes one species from another. Evolutionary biologists consider pollinators to be one of the main sources of natural selection on plants. They drive the adaptation of different flower forms, causing plants to specialize on the most abundant or efficient pollinators. These changes lead to reproductive isolation and ultimately speciation. Pollinators are apparently important in an evolutionary context; they explain what a plant looks like. Beyond producing seeds however, the role of flowers in an ecological context is largely unknown.

In a letter to Joseph Hooker in 1879, Darwin called the evolution of flowering plants an "abominable mystery", and though most biologists accept his theory of plant evolution resulting from specialized mutualisms, most plants and their pollinators are in fact generalized. The majority of flowering plants can be pollinated by a wide variety of visitors. Flowers must have evolved in response to a whole community of pollinator species. If generalist plants are sharing generalist pollinators, then plants must have evolved from interactions with co-existing plant species as well. Though driven by pollinators, this is not a mechanism to avoid competition as Darwin proposed specialization and mutualism to be.

Pollination networks have been mapped out, quantifying the links between many plants through their pollinators, but studies have not qualified these interactions. Darwin stressed that competition between species drives evolution, but plants can actually form a variety of mutualistic interactions with each other, just as they do with their pollinators. Plants can facilitate each other's presence in the landscape, as well as exclude each other through competition.

Physical facilitation occurs in many successional communities, as species rely on the presence of other species in order to establish. Facilitation for pollination works much the same way if plants attract more pollinators when growing with another species than when growing alone. Facilitation on large scales can act to promote species diversity, but facilitative relationships in nature are understudied compared to research focusing on competition; a bias of the Darwinian "struggle for existence" paradigm in modern biology.

My project will test whether plants are interacting either through competition or facilitation for pollinator resources and if these interactions have broad-scale implications for species distributions, abundance and community structure. I will compare the frequency that each species co-exist with one another to their similarity in five floral characteristics. Flower color can be quantified using a spectrophotometer to measure the wavelengths of light reflected by the flower. I will also measure flower size, shape and orientation from living plants, and estimate flowering time using herbarium records.

Since these species and their traits are not independent- they share an evolutionary history- I will incorporate their relatedness using a phylogeny of the species that co-occur in this community. A phylogeny is a family tree of species,

based on the genetic similarities used to test if apparent patterns have resulted from ecological sorting (i.e. interactions for pollinators) or simply evolutionary constraints shared by close relatives.

Understanding the interactions between plants and pollinators is more important than ever. Pollinators are considered indicators of ecosystem health and stability; unfortunately many parts of the world are reporting declines in native pollinators as well as domestic honey bees. Studies of community assembly will also aid restoration efforts that are working to reassemble communities into a historical state. Finding facilitative relationships between plants could help increase restoration success by suggesting common species that promote the pollination and establishment of rare species rather than competing with them. A major part of this project will be conducted at Spooky Hollow this spring and will contribute alongside data gathered at Point Pelee National Park, Backus Woods, The Royal Botanical Gardens, and the rare Charitable reserve in Blair Ontario, as well as Algonac State Park in Michigan. I will be reporting on the results of the study in future articles.



Photo: Large Spurred Violet by Stefan Weber



**Wednesday, September 8,
2010**

Evening Botany hike in Bronte and Petro Canada Park

Come for an evening stroll with Diane Green, our HNC Programme Director, and experienced botanist, to look for fall flowers and whatever other interesting items she may find, in this secret, secluded river valley in Bronte.

Meet at 6pm in the small parking lot just off Lakeshore Rd. on West River St., (at the edge of Bronte Creek as it flows into the boat harbour).

Call Diane at (905) 827 4662 for further details



Public Wins Pleasantview Fight

reprinted from CATCH

The city and local residents have successfully preserved the Pleasantview area of Dundas from urban development. The provincial government has now refused a developer-sought amendment to the Parkway Belt West plan and is transferring the rural Dundas lands to the protection of the Niagara Escarpment Commission.

A June 2 provincial cabinet decision signed by the Minister of Natural Resources Linda Jeffrey adds the Pleasantview lands and five other parcels in other parts of Ontario to the Niagara Escarpment Planning Area. The shift takes effect on July 1 and affects “the lands lying west of the westerly limit of King’s Highway No. 6 and north of the northerly limit of King’s Highway hwy 403 to the easterly limits of Olympic Drive and the northerly limits of Cootes Drive” between those boundaries and the current escarpment plan area.

Tim McCabe, the city’s head of economic development and planning alerted councillors yesterday he’d been informed that “the minister has issued a final refusal” on the developer-sought amendment, and that the developers have been so informed.

“So that went out to Ed Fothergill and the owners out there,” announced McCabe, referring to the former president of the Hamilton Chamber of Commerce who has been acting on behalf of Mattwood Homes.

Last year, provincial officials sought the city’s comments on the developer amendment application that sought to

permit 760 residential units on 60 hectares along York Road. In response, city planning staff advised council to recommend delay of a decision.

That position was approved by a sharply divided planning committee, but subsequently overturned by council and replaced with a motion fully opposing the development and reiterating a 2007 city recommendation that the lands be added to the escarpment plan.

Development was also opposed by Conservation Halton, by staff at the Ministry of Natural Resources, and by many local residents.

A report prepared in December by ministry staff noted the receipt of “101 comments from the public, all opposed to the proposed Parkway Belt West Plan amendment.” It went on to list reasons given by the residents.

“The public comments advised the application should be refused given that the area is environmentally significant; the proposed use would have negative impacts on the wildlife habitat of the area; the proposal would affect the watershed into Cootes Paradise; the proposal contradicts the 1995 OMB decision; the area provides a natural corridor between Cootes Paradise and the Niagara Escarpment; the proposal contradicts the Greenbelt Plan; the current infrastructure can not support development; the amendment contradicts the PBWP policy 6.2.3 (n); the site is surrounded by significant features such as Cootes Paradise, Hamilton Conservation Authority lands, Royal Botanical Gardens lands, and

Conservation Halton lands; and that the proposal is not in keeping with the low density character of the area.”

Ministry staff concluded that the amendment did not conform with the Greenbelt Plan, the provincial growth plan and the Provincial Policy Statement, and also was “contrary to the city of Hamilton’s long-term preferred growth option” and its new official plan.

The defeat for the developers comes 15 years after a 1995 decision of the Ontario Municipal Board that limited new building on the lands to one unit for each 10 hectares. That came out of an appeal by Dundas residents led by the Conserver Society, but didn’t bring a final stop to the development plans.

September's Harvest Moon Illusion

By Mario Carr



Autumn officially arrives on the night of Sept. 23 at 11:09 pm and only six hours later comes the Harvest Moon.

It's called the Harvest Moon because it is the first full moon after the autumn equinox. The last time the Harvest Moon appeared on the same night was in 1991. The next time will be in 2029.

Like all rising moons, it will look more colorful as its light passes through more dust layers in the atmosphere at the horizon than overhead.

It will also have the illusion that it is bigger at the horizon than overhead even though it's at the same distance from the Earth. If you have any doubts, try holding up a dime at arm's length to the moon when it's at the horizon and when it's overhead. You will see that the dime covers exactly the same area of the moon. There are lots of theories to explain the moon illusion but there is no definite reason why this occurs.

Officially, there is only one Harvest Moon, but you can see its affects again on Sept. 22 and 24. Normally, the moon rises about 50 minutes later each successive night; the Harvest Moon rises 20-25 minutes each successive night. That's because the angle of the full moon to the Earth's horizon is smaller than at any other time of the year.

Here are some important dates for this month's star gazers.

Sept. 7 - Moon at perigee or nearest to the Earth

Sept. 8 - New moon

Sept. 11 - Venus is only 0.3° north of the moon

Sept. 13-20 - Look low in the east about an hour before sunrise for Mercury, a small pinkish speck. If you look through a small telescope you can watch it go through its phases.

Sept. 15 - First quarter moon

Sept. 16 - Final shuttle mission. Discovery mission STS-133 will blast off from Cape Canaveral bringing an end to the 30 year-old shuttle program.

Sept. 17 - Hamilton Amateur Astronomers meeting at 7:30 pm, Hamilton Spectator Building, 44 Frid St., Hamilton

Sept. 21 - Jupiter at opposition. The solar system's largest planet will be closer to the earth than it has been in the last 47 years. It will not be this close until 2022. It is bright and it is an excellent time to view and photograph this gas giant. Through a telescope you can see details of its bands. The moon is also farthest from the Earth or at apogee.

Sept. 22 - Uranus at opposition. This blue green planet will be closest to Earth and can be seen with most telescopes.

Sept. 30 - Last quarter moon

For more information, please see the Hamilton Amateur Astronomers web site at www.amateurastronomy.org or call (905) 627-4323.

Mario Carr is Director of public education, Hamilton Amateur Astronomers..

He is also a member of the Hamilton Naturalist Club and can be reached at mariocarr@cogeco.ca.



Photo: Moon Rising Over Trees by Brian Makeless



Photo: Discovery Liftoff by Scott Andrews/NASA

Walk for Nature raises funds for Land Trust Projects

By Jen Baker



Despite rainy and chilly weather, on May 8th dozens of walkers joined the club's land trust program for the Walk for Nature. The fundraising walk followed the magnificent trails along the north shore of Cootes Paradise where the spring wildflowers were plentiful. Walkers raised over \$6,500 to support the Head-of-the-Lake Land Trust activities.

The Walk for Nature is a joint venture of local environmental clubs and organizations including Hamilton Naturalists' Club (HNC) as the lead organizer, Royal Botanical Gardens, Hamilton Conservation Foundation and Green Venture.

A special feature added for this year was the Nature Quest, a series of clues along the trail that needed to be solved before participants could get their prize. It was enjoyed by young and old alike. Special thanks to Natalia Rojas for the success of the Nature Quest!

Prizes were awarded to the top fundraisers with Frank Ernest of Ancaster once again winning the adult category with over \$2,000 in sponsorships. We thank Frank and his dedication to gathering sponsorships which total more than

\$9,000 over the last four years. We also thank Brian McHattie, Hamilton Councilor and HNC Past President, and Joan Bell with the Hamilton Conservation Foundation for their outstanding fundraising efforts. Prizes were generously donated by the HNC, Wild Birds Unlimited, Hamilton Conservation Authority, and Green Venture.

Generous sponsorship from the TD Canada Trust Friends of the Environment Foundation, coupled with the work of 30 volunteers allowed every cent raised to go directly towards supporting the club's land trust program and to supporting the partner groups as designated by walkers.



RUTHVEN'S SPECIAL "FOR THE BIRDS" WEEKEND SEPT. 18-19

Starting Friday evening Sept. 17th with a performance by Hamilton's "Arrogant Worms", this weekend of birding activities continues next morning with the bird banding team at 6am, or turn up at 7.30am to find the early birds foraging the area and follow the census routine that takes place each morning during bird migration.

Bird banding occurs all morning, Sat. and Sun. Visit the banding lab to see the birds up close. There will also be a series of lectures by outstanding bird researchers, dinner in the coach house Saturday evening, and a talk by Bridget Stutchbury, author of "The Bird Detective".

See displays by local naturalist organizations, including HNC, and vendors with birding supplies.

Saturday and Sunday features a birding hike from 9-10 am and an adventure for serious hikers - a 10km hike exploring the Grand Valley trail.

For further details/to order tickets for the evening events, please visit: www.ruthvenpark.ca or call Rick Ludkin (905) 765 4963 / e-mail: rludkin@hotmail.com

If you would like to help with this event, please contact Rick, or e-mail Elaine Serena at eserena@cogeco.ca or call (905) 639 2702

Garter Snake Mating Ball

By George Bryant



Photo: Garter Snakes by Bob Stamp

The intersection of 10th Road East and the Dofasco trail has long been one of the most rewarding sites to visit for Hamilton naturalists. In spring and summer it is a wonderful place to observe grassland birds including Upland Sandpiper, Eastern Meadowlark and Eastern Bluebird. In autumn or winter you can often spot Northern Harrier, Northern Shrike, or if you are lucky, a Short-eared Owl. Last year it achieved notoriety as the long-time hangout for a Northern Hawk Owl, a rare winter visitor to Hamilton.

While birding there on the morning of April 10 just as the sun was warming things up, Bob Stamp, Jim Heslop and I got a bonus. We observed a mating ball of about 20 Eastern Garter Snakes at the entrance to their rock pile hibernaculum (“hibernation den”). Within a few metres of this writhing mass, another 15 snakes were slithering away in all directions.

Other than a cluster of four garter snakes which I saw at eye level in a shrub one fall about ten years’ ago, this was the first snake mating ball I’ve ever witnessed.

This strange sighting raised many questions in my mind and after a bit of research I consulted Bob Johnson, Curator, Amphibians and Reptiles Toronto Zoo. What follows is information essentially derived from him on this fascinating natural phenomenon.

All garter snakes hibernate, generally together, so there may be 10 to 30 or

more at one location. They usually return to same location each year although a few will find new spots. They like to den in rock piles, stone foundations of older homes and out buildings or old abandoned wells.

In April for the first week or so after snakes emerge they may simply bask during the late morning and retreat to the hibernaculum at night. Males usually emerge first at the den entrance, wait for the females to arrive and then try to mate. It may take a few days for females to become sexually active.

During this time there is peace but once she produces her pheromones, males are attracted and will scent trail her route for some distance. When females emerge they tend to scatter in order to avoid males. Both sexes may return to the den for the first few nights until the ground warms up.

If several males encounter a female, they pursue her and create what we saw—a mass of twining snakes—the “mating ball”. Usually there is only one female per ball; you may see only her larger head at the front of all the males. Bob Johnson likened this to a “bunch of little sperms swimming upstream”! The mating ball lasts for 10 or 20 minutes and is broken up when the female escapes leaving the smaller males behind. Most balls are formed right after the snakes emerge; it is only after mating that garter snakes scatter to their foraging sites.

If a female gets away from the entrance to the hibernaculum without mating, she

will subsequently breed with any opportunistic male. If you see a ball up in a tree, it is the result of female trying to escape excited males who have been following her pheromone trail.

Although garter snakes will mate in the autumn, it is much more common in spring.

Snakes may forage two-three kilometers from their hibernaculum

So these hibernacula are very important as they may be the only over-winter refuge for a great area of snake habitat

To Canadians, the most famous examples of snake hibernacula and mating swarms are those in Narcisse, Manitoba northwest of Winnipeg. This has become a tourist attraction as in some springs you can see thousands of Red-sided Garter Snakes outside their dens. Our Ontario swarms are much less spectacular.

Garter snakes are very vulnerable at their mating dens because snakes from many hectares collect together and are pre-occupied with breeding when they emerge. At this time they are at particular risk from predators, including man. For this reason we should respect their personal space and ensure our activities do not disturb them.

Thanks to Bob Johnson for filling in the gaps in my knowledge and to Bob Stamp whose fine pictures inspired me to write about this fascinating phenomenon.

Coral Reefs with Jeremy Woodley

By Gord McNulty



HNC members were introduced to the spectacular world of coral reefs in a wide-ranging presentation by Jeremy Woodley of Dundas at the monthly meeting on May 3.

Jeremy's wealth of experience showed as he outlined the scientific complexities of reefs and how, in shallow tropical seas, they support the most diverse communities on the planet. In his sobering message, Jeremy underlined the many problems that have resulted in the decline of coral reefs and put their existence and future survival at risk.

Jeremy grew up in England and studied zoology at Oxford, leaving with a D Phil and a certificate in scuba diving. He then worked 33 years for the University of the West Indies in Jamaica. From 1975 to 1993, Jeremy ran the Discovery Bay Marine Laboratory. That lab, on the north coast, specializes in studies on the geology and biology of coral reefs. Jeremy later ran the multi-disciplinary Centre for Marine Sciences back on the main campus in Kingston. He retired in 2000 and still returns to Jamaica on occasion to keep up with research and go diving.

Corals are classified within the Coelenterates, a large and diverse group of simple animals that also includes Hydra, sea-fans, sea-anemones, and jelly-fish. Their basic unit, built from only two layers of cells is the bag-like polyp, which has a single opening, the mouth, to take up food and excrete residue. Around it are tentacles armed with stinging cells, with which the ani-

mals capture planktonic creatures and stuff them into their mouths. Coelenterates, then, are carnivorous but they often live in partnership with microscopic algae.

If these creatures have firm skeletons they are known as "corals". Soft coral skeletons are gelatinous with spicules; those sea-whips and sea-fans are fibrous and flexible. Others are rigid and mineralized, including the Stony or Reef-building corals which were the focus of Jeremy's presentation and displayed an amazing variety of shapes and colours.

Stony corals create and occupy external skeletons; cups of limestone attached to rocks on the sea-floor. They may be single polyps or the polyp unit may be replicated many times within the tissue of the organism to form a "colony." This term is still used but is misleading since each is a single individual!

Corals live in clear tropical waters, generally close to the surface where the sun's rays can reach their alga partners. Corals protect the algae from predation while the algae, in turn, remove carbon dioxide and excreted nutrients. The algae supply food and oxygen and greatly enhance the rate at which corals grow their skeletons.

As a result of their dependence on symbiotic algae, corals have limitations on growth. They need clear, warm, oceanic water, and light above all. Their many shapes are to some extent specialized to match their needs, such as capturing light. Corals compete for space and

some create an umbrella-like structure to over-shade their neighbours, which may then die for lack of light. Coral reefs are periodically devastated by heavy storms and can take decades to recover.

Apart from corals, reefs are home to many other creatures. Jeremy noted their biodiversity is much higher than even tropical rainforests. Many different species of fish are attracted to corals, as well as invertebrates such as sponges, sea urchins, feather-stars, sea lilies, brittle stars, starfish, sea-cucumbers and giant clams.

It was discovered only in the last couple of decades that many corals in a particular area reproduce at the same time every year. Reproduction occurs when sea-temperature is highest. All the corals release bundles of eggs and sperm into the water. They float slowly to the surface where they pop open and mix with others on the surface to form a spawn "soup." Eggs and sperm in this soup are united and then drift with the currents to reach new locations where they establish new coral colonies.

Discussing how reefs benefit humans, Jeremy noted they provide coastal protection, serving as effective barriers against hurricanes. They generate sand, allowing beaches to form, providing recreation and promoting tourism. They also provide food. Key commercial fish species depend on reefs, making the health and survival of reefs vital to the welfare of fishing communities.

Natural stresses on reefs include wave damage from hurricanes and other severe weather. Human-induced stresses, meanwhile, result in part from rapidly expanding development of adjacent coastal wetlands. As mangroves are drained and rivers straightened, damaging terrestrial run-off brings sediment and polluted nutrients into the sea.

Over-fishing in places such as Jamaica also upset the resilience of the reef ecosystem. It decimated not only the most desirable, large predators, but also herbivorous species that normally keep down the numbers of free-living algae. The long-spined black sea-urchin which grazes on algae became more common, in the absence of its predators, and a more important control. This became apparent in 1983 when an unknown disease killed off the urchins – and there was a great bloom of algae. As they flourished they over-grew, killed and replaced corals. Expanding areas of dead or dying reef are seen around many coastal towns, resort areas and populated regions in the tropics.

Coral reefs worldwide are threatened by greenhouse gas emissions. High temperatures due to global warming disrupt the symbiosis with micro-algae; they leave the corals which turn white and starve. Increasing acidity due to solution of more carbon dioxide in the sea makes it harder for corals to make their calcium carbonate skeletons.

If reefs are to be conserved, Jeremy emphasized the importance of protecting adjacent coastal land, not just the sea. Tertiary sewage treatment, which would remove excess nitrogen and phosphorus, would help as these nutrients stimulate prolific growth of algae. It is vital for governments to show leadership in designating large natural areas protected from development, reforesting watersheds, tackling over-fishing, preventing global warming and implement-

ing other conservation measures.

Jeremy noted that as the attractiveness and health of coral reefs declines, interest in their conservation by citizens and governments alike declines. He concluded that coral reefs will never again be the same as they were only a few decades ago. While describing the situation as hopeless over much of the world, Jeremy observed that some attractive reefs can still be found – although flying to see them will add more greenhouse gases to the atmosphere and hasten their demise!

Our thanks to Jeremy for a highly informative presentation which greatly enhanced our appreciation and understanding of coral reefs. We can only hope that governments will take enlightened action to save what is left of these highly valuable but vulnerable ocean ecosystems before it is too late.



Photo: Great Barrier Reef by Sean Connolly



Saturday Sept. 11th

**Onandaga Farms
Trumpeter Swan
reintroduction
programme/birding hike
with Tom Thomas and Gil
Henderson**

Leader: Tom Thomas (905) 689 5920

Visit Gil's extensive property across the road from Onandaga Farms. Gil was at the forefront of the native Trumpeter Swan reintroduction programme in this area. Also a Bluebird trail, Purple Martin houses and various wetlands and ponds. There should be migrating birds as the resident swans.

Take 403 west towards Brantford, turning off towards Cambridge Hwy#24, or go west along Hwy#5 through St George to Hwy #24. Continue north of Hwy # 5 on #24 to Glen Morris Rd.. Turn right and watch for #210. Follow the very long driveway to park just past the farm on the left side, where you will meet Tom and Gil for your tour at 10 am.

(Rain date Sunday, same time).

Insects Associated with Flowering Crown Vetch

at Dunnville, Ontario
by W.W. Judd



Photo: *Coronilla varia* by Jerzy Opiola

Crown Vetch, *Coronilla varia* L., is used in Ontario for stabilizing the banks of highways, its strong root system and abundant vegetation preventing erosion. For several years it has been used to stabilize the clay cliff of the north shore of Lake Erie on the property at 2948 Lakeshore Road in Dunnville (Lot 1, Concession IV south of Dover Road). A pressed specimen of flowers and leaves is deposited (No. 44848) in the herbarium of the University of Western Ontario.



During the period July 17 to 24, 2000 insects were collected from the vetch on the cliff. The Honey Bee and Vespid Wasps were identified by J.T. Huber, National Identification Service, Central Experimental Farm, Ottawa, Leaf-Cutter Bees by Cory Sheffield, York University, Toronto, Bumble Bees by S. Colla, York University, Blowflies by Terry Whitworth, Washington State University, Puyallup, Washington, U.S.A. and the Butterfly by the author. All the specimens are deposited in the insect collection of the University of Western Ontario.

Lycaenidae (Blues, Hairstreaks)

Celastrina ladon (Cramer) - 1 Blue

Azure butterfly

This butterfly occurs commonly at Dunnville (Judd, 1963)

Calliphoridae (Blowflies)

Phormia regina (Meigen) - 1
Lucilia silvarum (Meigen) - 1
Lucilia illustris (Meigen) - 8
Lucilia sericata (Meigen) - 5

These blowflies are reported as laying their eggs on decaying flesh and animal carcasses (Hall, 1948). It is therefore likely that the flies visiting the vetch originated from squirming masses of blowfly larvae frequently seen infesting dead fish on the beach below the cliff.

Megachilidae (Leaf-cutter Bees)

Megachile latimanus Say - 1
Megachile mendica Cresson - 1

Apidae (Honey, Bumble Bees)

Apis mellifera L. - 1 honey bee
Bombus griseocollis (DeGreer) - 3 bumble bees
Bombus bimaculatus Cresson - 1 bumble bee

Vespidae (Social Wasps)

Polistes fuscatus (Fabricius) - 2

These bees and wasps have been recorded as occurring in Ontario by Krombein *et al.*, 1979. The abdomens of *Megachile* were well dusted with pollen as were the hind legs of the

Honey Bee and Bumble Bees.

References

Hall, D.G. 1948 The Blowflies of North America, The Thomas Say Foundation

Judd W.W. 1963 Butterflies of Dunn Township, Ontario, Ontario Field Biologist, 17:1-14

Krombein, K.V. *et al.* 1979 Catalogue of Hymenoptera of America north of Mexico, Smithsonian Institution Press, Washington D.C.



Photos:

Far left: *Celastrina ladon* by D. Gordon E. Robertson.

Above: Leaf-cutter Bee by Vijay Cavale

Ancient Cedars of the Niagara Escarpment

By Gord McNulty



Centuries-old cedar trees clinging to the cliffs of the Niagara Escarpment were the focus of a fascinating presentation at the HNC meeting on April 12.

Ecological conservationist, researcher and photographer Peter Kelly, of Guelph, shared his expert knowledge of how the cracks, ledges and hollows of the escarpment are home to eastern white cedar trees that have long survived a harsh and rugged environment.

Peter illustrated a remarkable talk with excellent pictures taken during 19 years of experience on the Cliff Ecology Research Group at the University of Guelph. Many of the photos appear in his soft cover book *The Last Stand: A Journey Through the Ancient Cliff-Face Forest of the Niagara Escarpment*, (Natural Heritage Books/The Dundurn Group), which Peter co-authored in 2007. He read concise excerpts from his illuminating and inspiring book, adding to the enjoyment of the audience, and brought copies for sale.

The eastern white cedar was an important tree species for early settlers in southern Ontario. It made strong buildings and was used for telephone poles, railway ties, fences, and all kinds of outdoor construction. First Nations peoples used cedar to build longhouses, such as the reconstructed Iroquoian longhouse at Crawford Lake Conservation Area, canoes, and more. Cedar was regarded as being of spiritual and medicinal importance to the First Nations. The wood is very resistant to decay and decomposition, helping to explain why cedars can grow to incredible ages along the

escarpment.

Peter noted there was once a beautiful collection of cedars at Niagara Falls, as evidenced by artwork depicting Father Louis Hennepin's encounter with the falls in 1679, but they were replaced long ago by a concrete wall. One spectacular engraving, showing the empty American steamboat *Caroline* going over the falls in flames during the Upper Canada Rebellion of 1837, prominently featured cliff-face cedars.

Explaining why cedars grow along the cliff-edge, but disappear in the forest, Peter noted that cedars grow relatively slowly. Seeds that land in the forest are covered by leaves and twigs and simply can't grow quickly enough. In contrast, seeds are able to germinate along the exposed rock and nooks and crannies of the cliff-edge. The trees don't need soil; they are able to grow right out of the rock. A lot depends on the roots. If the roots can tap into a deep fissure, or are located on a large ledge, they can find the space necessary to grow.

Cliff trees endure the severe hardship of icestorms, snowstorms, and wind. Rockfalls also kill many trees. Another problem is the impact of rock climbing, which became popular in southern Ontario as immigrants arrived from Europe after the Second World War. In some cases, old trees have been cut off the cliff face to make way for climbing lines. Much of this activity, however, occurred before it became common knowledge during the past 20 years that old trees existed on the escarpment.

Cedars have what can be described as a neat internal plumbing system. They have root clusters that are connected to specific parts of the tree. If the roots die in one part of the tree, part of the tree will die but other parts fed by other root clusters are not affected. While many of the oldest trees appear dead, almost all of the old cedars have living strips, called strip bark or stem strips, which keep them alive. The trees can go on for hundreds of years even though much of the original tree is dead.

The ecology group obtained funding to locate and map the oldest trees. The data was used to inform landowners, public or private, and thus promote the conservation of these trees. Peter and an assistant worked their way along the escarpment, determining the ages of all trees in selected sampling areas that extended from the cliff edge down the slope to the bottom. They looked for various signs such as slow-growing, stunted trees, the characteristic stem strips, asymmetrical growth, trees that were upside down, trees with most of their growth on one side, a lot of dead branches, a sharp spiral and similar clues.

"Magic marker" would be used to record every 100 years in the life of a tree. The researchers would measure the individual widths of tree rings on the old trees and compare them to living trees on the same site. Peter displayed a number of outstanding photos of these trees, many in all sorts of weird shapes. Some of them couldn't be photographed because of foliage, or extreme positions, so Peter would sketch them.

None of the trees look the same by the time they reach 300 years in age.

An increment borer was used to determine the age of the trees. Increment borers, acting like biopsy needles, remove thin 3, 4, or 5-millimetre-wide pieces of wood samples that contain a lifetime record of the annual tree rings or growth layers in the tree.

During six years of searching, Peter found 124 living 500-year-old trees and 10 living 1,000-year-old trees along the escarpment. All 10 of the 1,000-year-old trees are at Lion's Head provincial nature reserve on the Bruce Peninsula. It is a fairly tall cliff, and there are a lot of fractures in the cliff face, so that helps to explain the phenomenon.

At Lion's Head, each of the south and north faces have a tree that is more than 1,300 years old. The first of the 1,000-year-olds to be discovered was suitably nicknamed The Millennium Tree. The Three Kings are the most spectacular cedars at Lion's Head, having survived a bombardment of rocks from the cliff face above. The Snake somehow meanders across the rock. Oldest of all of the trees in Ontario is The Ancient One. An awe-inspiring sight, tucked away on a ledge overlooking Georgian Bay, it is an incredible 1,322 years old.

The oldest tree in the Niagara Peninsula is 280 years of age. It's at the Beamer Memorial Conservation Area. The rock at Beamer is fairly loose, which tends to limit the age. Even so, the Ministry of Natural Resources defines old-growth in white cedars as 125 years, so the tree at Beamer is significant. Another noteworthy tree at Beamer is The Ghost, a gnarled cedar barely hanging upside down.

Nine sites in the southern half of the escarpment have living 500-year-old

trees, with the oldest at Mount Nemo Conservation Area being 876 years old. It's nicknamed The Amputee. A lopsided tree on a ledge halfway down a 30-metre cliff, it has managed to survive despite one side being cut off by rock climbers.

Other significant trees on our doorstep include a 407-year-old tree at Rock Chapel, nicknamed The Twister because of its tight spiral pattern, and two 500-year-old trees in the Spencer Gorge at Webster's Falls.

The oldest tree on the Beaver Valley is 769 years old. Inglis Falls, near Owen Sound, has one that is 806 years old. There is a 934-year-old, double-trunked cedar on the cliff at Smokey Head-White Bluff Nature Reserve on the eastern shore of the Bruce. The most visible ancient cedar along the escarpment, at Flowerpot Island, is 831 years old and nicknamed The Alien. It's easily visible to passengers on the tour boats passing by.

Peter noted cedars are capable of living longer than the trees that were discovered. He brought a section of one tree with 1,555 tree rings in it. Another tree had more than 1,600 rings. He concluded with photos of some escarpment wildlife that he came face to face with, including a turkey vulture, a porcupine and a family of raccoons.

Peter received a Niagara Escarpment Achievement Award from the Niagara Escarpment Commission in 2002 for his research. His passionate and rewarding presentation, which drew strong applause, underlined the importance of permanently protecting the vulnerable ancient cedars that enrich the escarpment. Peter is currently Research Director at 'rare,' a 913-acre land reserve in Cambridge at the confluence of the Grand and Speed Rivers, and plans to become vice-president of the Guelph Field Naturalists this fall. We extend

best wishes for continued success.



Photo: Flowerpot Island, home to centuries old Cedars.

Futurescape by Joan Shewchun

When the wild beasts' day is past
And forest sounds are stilled at last,
When heavy falls the final tree,
Where will my children's children be?

When scalded rivers leave their shore
By mountains touched with snow no more
And desert winds blow fierce and free,
Where will my children's children be?

When corals curl in poisoned death
And airless oceans gasp for breath
And fish no longer roam the sea,
Where will my children's children be?

Thank God I won't be here to see
Their accusing eyes on me!

Noteworthy Bird Records - March 2010

by Rob Dobos



Total number of species recorded in the HSA during 2010 to March 31: 139. Underlined species or dates require documentation by the Hamilton Bird Records Committee. Capitalized species require documentation by the Ontario Bird Records Committee. For species marked with “#”, all reported records are listed. For all other species, only highlights are listed. Note that the species order follows the most recent American Ornithologists’ Union checklist and supplements.

Observers: Phil Armishaw (PA), Jeff Barbour (JBa), Sandra Barbour (SBa), Jacob Bruxer (JBr), Vic Cairns (VC), Ezra Campanelli (EC), Giovanni Campanelli (GC), Geoff Carpentier (GCa), Barb Charlton (BC), Martin Daly (MD), Sandy Darling (SD), Rob Dobos (RD), Aidan Don (AiD), Dave R. Don (DD), Dave K. Donn (DKD), Chris Dunn (CDu), Paul Eagles (PE), Ben Edgecombe (BE), Cheryl Edgecombe (CE), Brett Fried (BF), Dean Gugler (DGu), John Hall (JHa), Jim Heslop (JH), Tyler Hoar (TH), George Holland (GH), Mark Jennings (MJ), Jean Johnson (JJ), Tim King (TK), Joyce Lechasseur (JLe), Dennis Lewington (DL), Gwen Lewington (GL), Reuven Martin (RM), Steve McAllister (SMA), Kevin McLaughlin (KM), David Morris (DMo), Niagara Peninsula Hawkwatch (NPH), Bill Smith (BS), Paul Smith (PS), Terrie Smith (TS), Robert Stamp (RS), Peter Thoem (PT), Marian Thorpe (MT), Josh Vandermeulen (JV), Phil Waggett (PWg), Jim Watt (JWa), Angie Williams (AWi), Ken Williams (KWi), Alan Wormington (AW), many observers (m.obs.).

Legend:

* - first occurrence for the year
F - first occurrence for the migration
L - last occurrence for the migration
HSA - Hamilton Study Area
terr. - territorial bird
SM - singing male

Plumages, etc.:

m. - male
f. - female
ad. - adult
ba. - basic
alt. - alternate
imm. - immature
juv. - juvenile
1st yr. - first year

Counties/Regions/Cities:

Brant [BR]
Haldimand [HD]
Halton [HL]
Hamilton [HM]
Niagara [NG]
Peel [PL]
Waterloo [WT]
Wellington [WL]

Cackling Goose#: Two at Grassie [NG] Mar 17 F (AW).

Trumpeter Swan: Ten ad. at Grand River N of Glen Morris [BR] and four ad. + three imm. at Onondaga Farms [BR] Mar 8 (PE); a pair starting nest building at Dundas Marsh [HD] Mar 11 (DKD); two at Fairchild Creek & Conc 5 [HM] Mar 15 (CE); one at Grand River, Caledonia [HD] Mar 28 (RD,CE,DD).

Tundra Swan: Birds on Mar 10 F: 100 –over Dundas [HM] (RS), 42 –Beamer C.A., Grimsby [NG] (NPH), 82 –Fifty Point C.A. [HM/NG] (GH), 19 –Aurora Cres, Burlington [HL] (BE,CE), 15 –over Olympic Arena, Dundas [HM] (JJ); 18 over Ruthven Park, Cayuga [HD] Mar 17 (PT); 62 over Rock Chapel [HM] Mar 19 (SD); 240 at Fairchild Creek & Conc 5 Mar 19 (JV,BF); 39 over University Plaza, Dundas [HM] and 10 past Saddington Park, Port Credit [PL] Mar 20 (CE *et al.*).

Wood Duck: One at Green Mt Rd & 6th Rd E [HM] (CE) and one at Middletown Marsh [HM] (BC) Mar 15 F.

Gadwall: 82 at Dundas Hydro Pond [HM] Mar 11 (MD).

American Wigeon: Two m. + one f. at Dundas Hydro Pond Mar 6-11 (RD; MD); six at Green Mt Rd & 6th Rd E Mar 15 F (CE); 18 at Fairchild Creek & Conc 5 Mar 20 (CE *et al.*); two at Dundas Marsh Mar 23 (DKD); one at Valens C.A. [HM] Mar 26 (CE).

Northern Pintail: Four past CCIW [HL] Mar 2 (RD); one m. at Shoreacres [HL] Mar 8 (RD); 89 at Green Mt Rd & 6th Rd E Mar 15 F (CE); 38 at Fairchild Creek at Conc 5 Mar 19 (JV,BF); one at Neibauers Marsh [WL] Mar 21 (CE).

Green-winged Teal: Five at Fairchild Creek & Conc 5 Mar 19 F (JV,BF); birds on Mar 28: 10 –Oneida 2nd Line [HD], 7 –Dry Lake Rd [HD], 2 –Mount Healy [HD] (RD,CE,DD).

Redhead: One at Valens C.A. Mar 26 F (CE).

Ring-necked Duck: Nine at Dundas Marsh Mar 11 F and 14 there Mar 23 (DKD); 99 at Neibauers Marsh Mar 21 (CE); 12 at Valens C.A. Mar 26 (CE).

Ring-necked Duck x Greater Scaup hybrid#: An apparent hybrid male at Windermere Basin [HM] Mar 7 (KM).

King Eider#: Seven 1st yr. m. + seven f. off Fifty Rd [HM]

Mar 6 (KM), and seven 1st yr. m. + nine f. there Mar 7 (RD *et al.*); eight 1st yr. m. + 13 f. off Fifty Point C.A./Fifty Rd Mar 9 (KM); 10 f. + five 1st yr. m. off Fifty Rd and one f. + one 1st yr. m. off Green Rd [HM] Mar 19 (TH).

Harlequin Duck#: One ad. m. + two f. off Saddington Park, Port Credit [PL] Mar 1-28 (m.obs.); one f. off Green Rd Mar 19 (TH).

Surf Scoter: Two m. on Hamilton Harbour off LaSalle Marina [HM] Mar 7 (RD *et al.*).

White-winged Scoter: 650 at E End of Harbour [HM] Mar 15 (RD); 9500 off Grimsby to Fifty Point C.A. Mar 16 (AW).

Black Scoter: One m. + one f. off Fifty Point C.A. Mar 1 (DD); three f. off Grays Rd [HM] Mar 19 (RD); two m. + two f. off Green Rd Mar 29 (RD).

Hooded Merganser: Six at Dundas Hydro Pond Mar 6 (RD); four at Valley Inn [HL] Mar 9 F (RD); five at Dundas Marsh Mar 11 (DKD).

Common Merganser: 124 at Valens C.A. Mar 26 (CE).

Ruddy Duck: One at Valens C.A. Mar 26 F (CE); two at Dry Lake [HD] Mar 28 (RD,CE,DD).

Ruffed Grouse#: One at Middletown Marsh Mar 1-6 (BC); up to seven at Westover Rd N of Conc 8 [HM] Mar 2-30 (PS).

Wild Turkey: Up to seven at Westover Rd N of Conc 8 Mar 2-17 (PS); seven at 10th Rd E S of Highland Rd [HM] Mar 7 (RD *et al.*); 10 at Hwy 407 N of Dundas St [HL] Mar 10 (RD); 10 at 5th Rd E S of Ridge Rd [HM] Mar 28 (DL,GL); 21 at Haldimand Rd 66 E of Hwy 6 [HD] Mar 28 (RD,CE,DD); three at Fletcher Creek Swamp Preserve [WL] Mar 28 (MT).

Common Loon: One ba. off Saddington Park, Port Credit Mar 20 * (CE *et al.*).

Pied-billed Grebe: One at Port Credit Harbour [PL] Mar 2 (GCa,TS); one at Desjardins Canal, Dundas [HM] Mar 6 (RD), and two there Mar 10-24 (DKD); one off LaSalle Marina Mar 7 (RD *et al.*).

Horned Grebe: Six off Saddington Park, Port Credit Mar 20F-26 (CE *et al.*).

Red-necked Grebe: Three off Fifty Rd Mar 6 F (KM); 61 off Saddington Park, Port Credit Mar 20 (CE *et al.*); 82 off Bronte Mar 27 (MJ); 228 off Green Rd Mar 29 (RD); 525 off Arkendo Park, Oakville [HL] Mar 29 (JWa).

WESTERN GREBE#: One off Saddington Park, Port Credit Mar 18*-21 (RM,JLe; m.obs.) provided a record early date for the HSA.

Double-crested Cormorant: Two past CCIW Mar 12 F (RD).

Great Blue Heron: One at Lynden Rd, Brantford [BR] Mar 3 F (DD).

Black-crowned Night-Heron: One juv. at Dundas Hydro Pond Mar 6 (RD); one ad. at Bronte Marsh [HL] Mar 27 F (MJ).

BLACK VULTURE#: One at Beamer C.A. Mar 19 * (NPH); the same bird was refound two hours later over Dundas (RD), and RD & CE followed it to a roost in an urban yard with about 25 Turkey Vultures near University Plaza [HM]; the next morning, Mar 20, it was observed leaving the roost (m.obs.) and then seen a short while later over Fallsview Rd W of Sydenham Rd [HM] then followed towards Millgrove [HM] (TK *et al.*).

Turkey Vulture: Birds at Beamer C.A.: 374 –Mar 24, 212 –Mar 30, 822 –Mar 31 (NPH).

Bald Eagle: Two imm. at Hamilton Harbour Mar 1-3 (RD); 34 counted at Beamer C.A. Mar 2-24, including seven on Mar 9 (NPH); three ad. + one imm. at Grand River at Glen Morris Mar 8 (PE); an ad. nest building at S Shore of Cootes Paradise [HM] early March (*vide* MD).

Northern Harrier: Seven at 10th Rd E & Dofasco Trail [HM] Mar 1 (CE,EC,GC).

Sharp-shinned Hawk: One at Beamer C.A. Mar 2 F (NPH).

Cooper's Hawk: Two at Beamer C.A. Mar 2 F (NPH); one terr. pair at Middletown Marsh Mar 18 (BC).

Northern Goshawk#: Birds at Beamer C.A.: 2ad. –Mar 6 F, 1 –Mar 7, 1 –Mar 8, 1 –Mar 9, 1juv. –Mar 20, 1 –Mar 21, 1juv. –Mar 22, 1ad. –Mar 24, 1 –Mar 28 (NPH).

Red-shouldered Hawk: Birds at Beamer C.A.: 2 –Mar 16 F, 71 –Mar 20, 52 –Mar 21, 51 –Mar 31 (NPH).

Red-tailed Hawk: One dark morph at Britannia Rd E of Appleby Line [HL] Mar 3 (PWg); 158 at Beamer C.A. Mar 18 (NPH).

Rough-legged Hawk: One at Beamer C.A. Mar 6 F (NPH).

Golden Eagle#: Birds at Beamer C.A.: 3ad. –Mar 17 *, 2 –Mar 20 (NPH); one ad. over Windermere Basin Mar 31 (RD,CE).

American Kestrel: One at Beamer C.A. Mar 4 F (NPH).

Merlin#: Birds at Beamer C.A.: 1 –Mar 1 F, 1 –Mar 11, 3 –Mar 24, 1 –Mar 28, 1 –Mar 29 (NPH); one at LaSalle Park [HL] Mar 4 (RD); one at Britannia Ave & Province St, Hamilton [HM] Mar 12 (AWi,KWi).

Peregrine Falcon#: Two ad. at CCIW + Burlington Lift Bridge [HM/HL] Mar 1-31 (m.obs.); birds at Beamer C.A.: 2 –Mar 18, 1 –Mar 20, 1 –Mar 21, 1 –Mar 24, 1 –Mar 30, 1 –Mar 31 (NPH).

American Coot: Five at Windermere Basin Mar 15 (RD); two at Dundas Marsh Mar 23 F (DKD).

Killdeer: One at Lynden Rd, Brantford Mar 2 * (DD).

Lesser Yellowlegs: One at 5th Rd E N of Green Mt Rd [HM] Mar 27*-30 (DL,GL; m.obs.).

Pectoral Sandpiper: One at 5th Rd E N of Green Mt Rd

Mar 28*-29 (DL,GL; m.obs.).

Wilson's Snipe: Ten at 5th Rd E N of Green Mt Rd Mar 27 * (JBr), and 13 there Mar 28 (RD,CE,DD).

American Woodcock: Two terr. at Governors Rd W of Copetown [HM] Mar 14 * (DGu); one terr. at Lower Lions Club Rd [HM] Mar 15 (JBr); one over York Rd, Dundas [HM] (RD) and two terr. at N Shore of Cootes Paradise [HM] (MD) Mar 16; three terr. at Bronte Creek Prov. Park [HL] Mar 16-18 (RC,GS; m.obs.).

Iceland Gull: Two imm. at CCIW Mar 4 (RD); one 2nd ba. off LaSalle Marina Mar 7 (RD *et al.*); three off Green Rd Mar 29 (RD).

Lesser Black-backed Gull#: One 3rd ba. off LaSalle Marina Mar 7 (RD *et al.*).

Glaucous Gull: Four off LaSalle Marina and two imm. at CCIW Mar 4 (RD); six imm. off Woodland Cemetery [HM] Mar 7 (RD *et al.*); one 2nd ba. at Bronte Harbour Mar 27 (MJ); one imm. at CCIW Mar 31 (RD).

Caspian Tern: One at NE Shore of Harbour Mar 31 * (RD).

Tern species: A *Sterna* tern at Pier 8, Hamilton Harbour [HM] Mar 15 (JHa,VC) would be a record early date for any tern species.

Short-eared Owl#: Five at 10th Rd E & Dofasco Trail Mar 1 (CE,EC,GC); 20 at Haldimand Rd 66 E of Moores Rd [HD] Mar 5 (PA); one at Bronte Creek Prov. Park Mar 17 (DD,AiD).

Northern Saw-whet Owl#: One at Windermere Basin early Mar (SBa,JBa); one at Bayfront Park, Hamilton [HM] Mar 12 L (BS).

Belted Kingfisher: One at Dundas Hydro Pond Mar 6 (RD); one at Woodland Cemetery Mar 7 (RD *et al.*); one at Middletown Marsh Mar 18 F (BC).

Yellow-bellied Sapsucker: One at Beamer C.A. Mar 29 F (NPH).

Eastern Phoebe: One at Lower Lions Club Rd Mar 27 * (JBr).

Northern Shrike#: One at a NE Hamilton yard [HM] early Feb-Mar 14 (TK); birds on Mar 7: 1 –Nebo Rd S of Rymal Rd [HM], 1 –Powerline Rd E of Tapleystown Rd [HM], 1 –Green Mt Rd Quarry [HM] (RD *et al.*); one at 10th Rd E & Dofasco Trail Mar 10-29 (RD *et al.*); one at Confederation Park [HM] Mar 12 (RD); one at Fletcher Creek Swamp Preserve Mar 24 (MT); one ad. at Edgewood Rd S of Safari Rd [HM] Mar 26 (PS); one at 5th Rd E N of Green Mt Rd Mar 28 (RD,CE,DD).

Common Raven#: One at Middletown Marsh Mar 19 (BC); one at Hwy 6 & Conc 6 E [HM] Mar 25 (TT); one at Fletcher Creek Swamp Preserve Mar 28 (MT).

Tree Swallow: Three at Dundas Hydro Pond Mar 24 *

(DKD); 40 at Grand River, Caledonia to Cayuga [HD] Mar 28 (RD,CE,DD).

Tufted Titmouse#: One at Beamer C.A. Mar 29 (NPH).

Eastern Bluebird: Two at Middletown Rd S of Conc 5 [HM] Mar 4 (BC).

Gray Catbird: One at Saddington Park, Port Credit Mar 20 (SMA).

Yellow-rumped Warbler: Three at Olympic Arena, Dundas Mar 10 (JJ); three at Dundas Marsh Mar 11 and six there Mar 24 (DKD); at least two at Port Credit Harbour Mar 2-28 (GCa *et al.*); one at Bronte Mar 20 (MJ).

Eastern Towhee: One at Sunrise Cres, Dundas [HM] Mar 29 * (RD).

Chipping Sparrow: One at Bronte Creek Prov. Park Mar 28 * (MJ) provided a record early spring date for the HSA.

Fox Sparrow: Two at Beamer C.A. Mar 25 F (NPH).

Lapland Longspur#: 19 at Fallsview Rd W of Sydenham Rd Mar 19-20 (CDu; SD).

Red-winged Blackbird: 200 at Dundas Mar 11 F (RD).

Eastern Meadowlark: One at Westover Rd N of Conc 4 [HM] Mar 11 * (BC).

Rusty Blackbird: One at Middletown Marsh Mar 21 * (BC); one at 10th Rd E & Dofasco Trail Mar 29 (RS,JH).

Common Grackle: Five at Dundas Hydro Pond Mar 6 * (RD).

Brown-headed Cowbird: 15 at Dundas Hydro Pond Mar 6 F (RD).

Baltimore Oriole: One m. at Middletown Marsh Mar 19 * (BC) was likely an overwintering bird.

Purple Finch: One at Beamer C.A. Mar 25 F (NPH).

European Goldfinch#: A “Gray-headed” form at a feeder near Jerseyville [HM] Mar 27-28 (DMr) was undoubtedly an escapee.

Please send your bird records for Apr-May 2010 by Oct 10 to: Rob Dobos, 21 Sunrise Cres., Dundas, Ont., L9H 3S1; ph: (905) 628-0297; e-mail: rdobos@cogeco.ca

Downtown Students Become Nature Stewards

by Jen Baker



In June over 30 Grade 3 and 4 students from Cathy Wever Elementary School enjoyed a nature hike at the Cartwright Nature Sanctuary with the Hamilton Naturalists' Club (HNC). The students were also busy helping the HNC with its work to care for (steward) the nature sanctuary.

Students planted milkweed plants grown in the classroom through the HNC's Monarchs & Milkweed program. The milkweed plants will provide essential food and habitat for Monarch caterpillars and butterflies. Students also helped control invasive garlic mustard and went on a guided nature hike including a nature scavenger hunt.



"The field trip was a new and different experience for many of these downtown students. They were thrilled to be able to plant the milkweed that they had been caring for in their classrooms. They also enjoyed learning about the species that their keen young eyes spotted," says Jen Baker, Land Trust Coordinator with the Hamilton Naturalists' Club.

The Monarchs & Milkweed program provides hands-on opportunities for students to learn about, and take an active role in creating Monarch habitats and experiencing the full life cycle of this unique butterfly. In September students will also be raising Monarch caterpillars and releasing Monarch butterflies which will then fly to Mexico for the winter.

The Hamilton Naturalists' Club appreciates the generous support for this project from Earth Day Canada (EDC) and Sobey's Ontario through the Earth Day Canada Community Environment Fund.

Get involved in protecting and caring for nature sanctuaries

Come help the land trust program
protect natural areas
restore habitat for endangered species
build and maintain trails
educate students about nature

Whether you're interested in conducting biological inventories or removing invasive species, or you're a "people person" with keen planning and organization skills, the Head-of-the-Lake Land Trust program has a volunteer position with your name on it.

Several kinds of volunteer opportunities with the HLT program are available, including caring for the nature sanctuaries, helping secure new nature sanctuaries, fundraising, and communications.

We're a fun and friendly group and we welcome club members to find out more about what we do.

Please contact Jen Baker (land@hamiltonnature.org or 905-524-3339) for more information.



Annual Financial Statements

Each year the HNC posts its financial statements for your review. If you require further information, please contact the *Wood Duck* editor.

Antony Polzer Chartered Accountant, Licensed Public Accountant
 388 Denlow Avenue, Hamilton, Ontario L9C 6Z5 Tel. 905 388 1567 905 388 1659 Fax. 905 574 2242

AUDITOR'S REPORT

To the Members:
 Hamilton Naturalists' Club

I have audited the statement of financial position of Hamilton Naturalists' Club as at April 30, 2010 and the statements of revenue and expenditures and net assets and cash flows for the year then ended. These financial statements are the responsibility of the Club's management. My responsibility is to express an opinion on these financial statements based on my audit.

Except as explained in the following paragraph, I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In common with many charitable organizations, the Club derives revenue from donations and fund-raising activities, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, my verification of donation and fund-raising revenue was limited to the amounts recorded in the records of the Club, and I was not able to determine whether any adjustments might be necessary to donations and fund-raising revenue and net assets.

In my opinion, except for the effect of adjustments, if any, which I might have determined to be necessary had I been able to satisfy myself concerning the completeness of the donations and fund-raising revenue referred to in the preceding paragraph, these financial statements present fairly, in all material respects, the financial position of the Club as at April 30, 2010 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Hamilton, Ontario
 July 23, 2010

CHARTERED ACCOUNTANT
 Licensed Public Accountant

HAMILTON NATURALISTS' CLUB STATEMENT OF FINANCIAL POSITION AS AT APRIL 30, 2010

	2010	2009
ASSETS		
CURRENT		
Cash	\$ 21,617	\$ 55,872
Investments (Note 5)	289,352	201,054
Receivables	1,031	5,404
Prepaid Expenses	<u>5,320</u>	<u>5,320</u>
	317,320	267,650
PROPERTY, PLANT AND EQUIPMENT		
(Note 6)	<u>6</u>	<u>6</u>
	<u>\$ 317,326</u>	<u>\$ 267,656</u>
LIABILITIES		
CURRENT		
Accounts Payable and Accrued Liabilities	<u>\$ 8,758</u>	<u>\$ 5,628</u>
NET ASSETS		
RESTRICTED NET ASSETS		
(Note 4)	5,000	5,000
UNRESTRICTED NET ASSETS	<u>303,568</u>	<u>257,028</u>
	<u>308,568</u>	<u>262,028</u>
	<u>\$ 317,326</u>	<u>\$ 267,656</u>
APPROVED ON BEHALF OF THE BOARD:		
_____ Director		
_____ Director		

HAMILTON NATURALISTS' CLUB STATEMENT OF REVENUE AND EXPENDITURES AND NET ASSETS FOR THE YEAR ENDED APRIL 30, 2010

	2010	2009
REVENUE		
Membership Fees	\$ 13,409	\$ 12,866
Project Grants	46,431	88,996
Donations and Bequests	66,838	51,996
Fund-raising	14,408	17,942
Interest and Dividends	3,108	4,418
Endowment Funds	60	3,800
Other	<u>663</u>	<u>663</u>
	<u>144,254</u>	<u>179,781</u>
EXPENDITURES		
Project Costs	75,414	73,111
Office, Administration and Telephone	2,136	1,876
Bank Charges, Legal, Insurance, Audit	6,837	8,563
General Meetings	2,876	2,124
Newsletter	7,213	7,196
Publicity	661	143
90th Anniversary Event	3,720	1,172
Donations	1,073	1,848
Land Trust Operations	5,228	12,763
Field Events	301	1,019
Unrealized (Gains) Losses on Investments	(11,460)	12,222
Other	<u>3,715</u>	<u>4,970</u>
	<u>97,714</u>	<u>127,007</u>
EXCESS OF REVENUE OVER EXPENDITURES FOR THE YEAR		
	46,540	52,774
NET ASSETS, BEGINNING OF THE YEAR	<u>262,028</u>	<u>209,254</u>
NET ASSETS, END OF THE YEAR	<u>\$ 308,568</u>	<u>\$ 262,028</u>
(Note 7)		

HAMILTON NATURALISTS' CLUB
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED APRIL 30, 2010

	<u>2010</u>	<u>2009</u>
CASH PROVIDED (USED) BY:		
OPERATING ACTIVITIES		
Excess of Revenue Over Expenditures	\$ 46,540	\$ 52,774
CHANGES IN NON-CASH WORKING CAPITAL BALANCES		
Accounts Payable and Accrued Liabilities	3,129	1,229
Prepaid Expenses	-	(16)
Receivables	4,374	2,423
	<u>7,503</u>	<u>3,636</u>
	<u>54,043</u>	<u>56,410</u>
FINANCING ACTIVITIES		
	-	-
INVESTING ACTIVITIES		
Investments	(88,298)	(18,823)
NET DECREASE (INCREASE) IN CASH	(34,255)	37,587
CASH, BEGINNING OF THE YEAR	55,872	18,285
CASH, END OF THE YEAR	\$ 21,617	\$ 55,872
SUPPLEMENTARY INFORMATION		
Interest paid on short-term debt	\$ -	\$ -
Interest paid on long-term debt	\$ -	\$ -
Income taxes paid	\$ -	\$ -

The accompanying notes are an integral part of these financial statements

4.

HAMILTON NATURALISTS' CLUB
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED APRIL 30, 2010

1. NATURE OF ORGANIZATION

The Hamilton Naturalists' Club is an incorporated non-profit organization dedicated to the study, appreciation and conservation of our wild plants and animals in Hamilton and surrounding regions. All work is freely done by Directors, Officers and Volunteers.

The Club is a registered charity and is exempt from income tax provided it continues to maintain its charitable status.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

These financial statements have been prepared in accordance with generally accepted accounting principles in Canada. Outlined below are those policies considered particularly significant for the Company.

(a) Restricted Fund Accounting:

The General Fund accounts for current operations and programs as well as the Club's general operations. Unrestricted contributions (donations and grants) and restricted contributions to be used for operations are reported in this fund.

The Conservation and Education Fund accounts for donations or bequests received for, and those related expenditures made for, specific conservation and education purposes. Transfers from the General Fund are subject to Board approval.

The Sanctuary/Land Trust Fund accounts for donations, grants or bequests received for specific sanctuary purposes or special projects. Expenditures from this fund are limited to the acquisition of lands, the assistance in acquisition of lands or property interests in lands which will be used for nature reserve purposes or wildlife sanctuaries in accordance with the objects of the Club, for the maintenance of Club-owned nature sanctuaries or for special projects. The balance in this fund shall be not less than \$5,000. Transfers from the General Fund are subject to Board approval.

The Life Member Endowment Fund accounts for life memberships received. Annual transfers to the General Fund are allowed to equal the number of life memberships received during the year multiplied by the current annual dues for an active member but may be less. Expenditures from the fund must be authorized by the Board.

The Wild Lands Acquisition Fund accounts for donations or bequests received for and those related expenditures made for specific wild lands acquisitions. Transfers from the General Fund are subject to Board approval.

The Nature Walk for Our Environment Fund accounts for donations or bequests received and for those related expenditures made, for the annual Walkathon. Transfers from the General Fund are subject to Board approval.

The Anita Dutka-Buchin Memorial Trust Fund accounts for donations of cash or donations or bequests received in the form of publicly traded securities and investment income earned thereon, held in a brokerage account, for eventual transfer to the Wild Lands Acquisition Fund.

The Habitat Preservation Endowment Fund accounts for donations or bequests received in the form of publicly traded securities and investment income earned thereon, held in a brokerage account, for eventual transfer to the external Hamilton Naturalists' Club Habitat Preservation Endowment Fund at the Hamilton Community Foundation.

5.

HAMILTON NATURALISTS' CLUB
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED APRIL 30, 2010

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - continued

(a) Restricted Fund Accounting:

These internally restricted fund balances are not available for any purpose, other than that specified by the fund name, unless that other purpose is approved by the Board.

(b) Cash

Cash is comprised of cash on hand, demand deposits, and investments with an original maturity of less than three months.

(c) Investments

The company follows the fair value method of accounting for its investments. Unrealized gains and losses are shown on the statement of revenue and expenditures and net assets.

(d) Property, Plant and Equipment

Expenditures to acquire property, plant and equipment are charged to the statement of revenue and expenditures and surplus as incurred and the nominal amount of \$1 shown on the statement of financial position.

(e) Pledges

Donations pledged are not recorded in the financial statements until they are received.

(f) Donated Materials and Services

The value of donated materials and services is not recorded in the financial statements because of the difficulty in determining their fair value.

(g) Basis of Accounting

Membership fees, project grants, donations and bequests, fund-raising, endowment fund, and other revenue is recognized when received.

Interest and dividend revenue is recognized as earned.

Expenditures are recognized when incurred.

3. FINANCIAL INSTRUMENTS

Recent amendments to the Canadian Institute of Chartered Accountants (CICA) Handbook now require that all financial assets be classified as held-to-maturity, loans and receivables, held-for-trading or available-for-sale and all financial liabilities be classified as held-for-trading or other.

Financial instruments classified as held-for-trading will be measured at fair value with changes in fair value recognized in net income.

Financial assets classified as held-to-maturity or as loans and receivable and financial liabilities not classified as held-for-trading will be measured at amortized cost.

Available-for-sale financial assets will be measured at fair value.

6.

HAMILTON NATURALISTS' CLUB
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED APRIL 30, 2010

3. FINANCIAL INSTRUMENTS - continued

The Club has classified its financial instruments as follows:

Cash	Held-for-trading
Investments	Held-for-trading
Receivables	Loans and receivables
Accounts payable and accrued liabilities	Other liabilities

The fair value of these financial instruments is equal to their carrying amounts because of their short terms to maturity.

4. RESTRICTED NET ASSETS

The Sanctuary fund includes \$5,000 (\$5,000 in 2009) which must be maintained by the Club at all times.

	<u>2010</u>	<u>2009</u>
--	-------------	-------------

5. INVESTMENTS

TD Canada Trust Money Market Mutual Funds	\$ 41,148	\$ 41,100
ING Direct Business Investment Savings Accounts	189,215	127,881
TD Waterhouse Broker's Account	58,989	32,073
	<u>\$ 289,352</u>	<u>\$ 201,054</u>

Investments are stated at fair market value. Interest rates earned during the year varied from virtually 0% to 1.35%.

**6. PROPERTY, PLANT AND EQUIPMENT
(At Nominal Amounts)**

Equipment	\$ 1	\$ 1
Short Hills Wilderness Area	1	1
Short Hills Wilderness Area Addition	1	1
Spooky Hollow Sanctuary	1	1
Spooky Hollow Sanctuary Addition	1	1
Thomas and Mary Young Sanctuary	1	1
	<u>\$ 6</u>	<u>\$ 6</u>

7. FUND BALANCES

Anita Dutka-Buchin Memorial Trust	\$ 58,944	\$ 24,852
Conservation and Education	49,585	42,324
Life Member Endowment	12,515	11,765
General	27,224	28,254
Habitat Preservation Endowment	9,047	7,221
Sanctuary/Land Trust	98,512	115,945
Nature Walk for Our Environment	2,460	3,809
Wild Lands Acquisition	50,281	27,858
	<u>\$ 308,568</u>	<u>\$ 262,028</u>

7.

HAMILTON NATURALISTS' CLUB
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED APRIL 30, 2010

7. FUND BALANCES - continued

The Club transferred \$139 (\$349 in 2009) from the Life Member Endowment Fund to the General Fund for general Club operations.

The Club transferred \$9,003 (\$0 in 2009) from the Anita Dutka-Buchin Memorial Trust Fund TD Waterhouse Broker account to the Wild Lands Acquisition Fund ING Direct Business Investment Savings Account. This cash was transferred in order to earn interest. These funds continue to belong to the Anita Dutka-Buchin Memorial Trust. The totals for both funds have been adjusted to reflect this transaction accordingly.

The club transferred \$2,604 (\$0 in 2009) from the General Fund to the Habitat Preservation Endowment Fund.

8. COMMITMENTS

The Club enters into contracts for services several of which have expired during the year. The following contract was still in force at the end of the fiscal year:

Land Trust Program Coordinator with Jennifer Baker to coordinate the Head-of-the-Lake Land Trust Program and related projects to August 1, 2010.

9. CAPITAL DISCLOSURES

Capital is the sum of Restricted and Unrestricted Net Assets. The Club's objectives when managing capital are to hold sufficient unrestricted net assets to enable it to meet its obligations as they become due. Investments are comprised of cash and publicly traded shares stated at fair market value.

10. AGREEMENTS WITH THE HALTON REGION CONSERVATION AUTHORITY (THRCA)

On December 17, 2004 the Club and THRCA entered into a Conservation Agreement regarding the Cartwright Property. The agreement ensures the protection, maintenance, restoration and enhancement of the natural features of the Lands and prevents any use of the Lands which will damage those natural features or prevent their restoration and enhancement.

The Club and THRCA have also signed a Management Agreement under which they will jointly manage and administer the Cartwright Property and the adjoining Nicholson Property which is also owned by THRCA.

8.

**COOTES PARADISE
BIODIVERSITY FESTIVAL**

Saturday, September 25, 2010; 10 a.m. to 3 p.m.
RBG Nature Interpretive Centre
Old Guelph Road, Hamilton/Dundas
Admission: **FREE**

It's fun, for families and free! Migrate out to the Nature Centre and explore the living world around you. Meet amazing wildlife close-up, with demonstrations and displays from Sciensational Ssnakes, Muskoka Wildlife Centre and Mountsberg Raptor Centre. Go on a hawkwatch hike, tag migrating monarchs, play biodiversity games and see how RBG biologists monitor and protect rare species. Make a seed rocket, build a birdhouse, or find out what plants will attract wildlife to your backyard. Celebrate the International Year of Biodiversity with a day in Canada's biodiversity hotspot. BBQ tent and refreshments available onsite.

Arboretum parking fee of \$3/vehicle applies;
(free for RBG members with 2010 trailhead parking pass)



The Queen's University Biological Station 2010 Workshop Series

Including:

- **Fabulous Fall Fungi with Richard Aaron.** Mon. October 4th thru Fri. October 8th. Fee \$425
- **Fall Transition Art in Nature with Marta Scythes.** Fri. Oct 15th-17th. Fee \$195
- **Nature Photography.** Dates TBA

And many more ... Open to everyone. Space is limited so apply soon.

For more information please see: <http://www.queensu.ca/biology/qubs/events/workshops.html>

Contact: qubsoutreach@gmail.com

Phone: 613-359-5629

Book Review - Birds of Canada

Lone Pine Publishing 2010

by Tracey Conley

“This book celebrates the rich assortment of birds that live, breed or migrate through Canada, and provides an overview of the birds that regularly occur here.”

So begins the colourful and exceptionally put together hard-cover 528 page book “Birds of Canada”, out this year by Lone Pine Publishing.

Put together by Tyler L. Hoar, an avid naturalist and ornithologist with extensive experience in birding surveys and research, Ken De Smet, an avian species at risk specialist with the Manitoba Wildlife and Ecosystem Protection Branch, R. Wayne Campbell an Ornithologist who has authored over 50 books and more than 400 articles and Gregory Kennedy an active naturalist, author and producer, the book delivers all the enthusiastic Birder could hope for and more.

This is a comprehensive who’s who of the 451 species of birds listed as regular by the official checklist of 658 species issued by Avibase, the World Bird Database. These are the birds one is most likely to encounter throughout this land of ours.

Separated into handy categories and with colour coding throughout, the book makes it easy to find exactly what you are looking for.

The front of the book contains a Reference Guide containing some of

the common types of birds in each category, an illustration of each bird, size of the bird and page reference for further information. And no information has been skimmed on.

Each individual bird page contains the following detailed information for that bird: ID, Size, Habitat, Nesting, Feeding, Voice and Similar Species.

I found the detail to be more than adequate; both for experienced birders as well as providing excellent facts for those just starting out. It is especially handy for the beginning Birder to be able to check a “similar birds” reference to appropriately identify a bird they may be observing.

Range Maps are included showing migration areas, summer/winter and year-round populations, migration and post-breeding dispersal, as well as possible breeding areas.

The Introduction of the book is of particular note. It includes some terrific lists of suggested Birding sites throughout Canada; a wonderful reference particularly when travelling. There is also some great advice regarding learning about Birding, classification of birds, Birding techniques, recommended equipment and so much more.

Did you know that the coldest temperature tolerated by a Canadian bird is -62.5°C for the Snowy Owl? Or that

Vultures have the slowest wingbeat at 1 per second? These and other fun facts are included in a section called Canadian World Record Setters.

Not only is this book filled with interesting and useful facts, it is also a rather lovely book to simply flip through. Very colourful and with lots of detailed illustrations and photographs, the book is a pleasure for the eye.

This book would be of interest and use to both adults and teens. Children under 12 would probably enjoy this book with some assistance.

Finally in the back, the book includes a list of all 658 species of birds that have been officially recorded in Canada. Why not see how many you can spot?



Watch for your chance to win a copy of “Birds of Canada” in next month’s Wood Duck!

Learning To Fly

by June Hitchcox

Getting the courage to fly can be quite a harrowing experience for a young bird. It may involve trust that its parents know best; hunger if the parents have stopped bringing food to the nest; an instinct that this is what birds do; feathers and muscles being developed enough to allow flight. It involves practice – often the first attempts end in a fall to the ground and a long hike back to the nest; practice in landing safely; practice, as with a Loon, to run on water for quite a distance before getting the speed to take off into the air.

For ducks that find tree holes or use nest boxes fairly high up in trees, such as Wood Ducks and Hooded Mergansers, the ducklings' first experience through space, at one day old, is not flying, it is tumbling as much as 50' to the ground when their mother calls to them either from the ground or from nearby. The ducklings have never seen her in their dark nest-hole but know her voice. When they have all jumped out – as many as 10-12 – she leads them to water where food is available. Flying comes later while on the water, after many days of flapping their wings to get the needed strength, watching other birds flying and instinct which tells them this is the thing to do.

Ospreys, Eaglets and Gannets, have a different procedure. Their nests are in the open with lots of room around. The young practice by perching on the edge of the nest to flap their wings, then graduate to tree branches or cliff edges where they also get the feeling of balance, wildly flapping their wings for hours until

one day they have the courage and strength to try flying.

Smaller birds, such as the sparrows outside our living room window, see that their parents have food in their bills but are not coming with it to the nest. They eventually get the idea that they have to go to the parents for the food and they fly to them.

We watched a Grackle family following their mother in a flying lesson. She had a piece of grass in her bill which they thought was food. She flew back and forth between 2 forests that had a beach between until all were worn out.

Perhaps you have watched young birds getting ready and attempting their first flight – we would be pleased to hear about that. If not, keep a watch on a nest and you might see it happen!



Photo: Wood Duck duckling by Elizabeth Jeffers

Your Knowledge and Experience are needed on the HNC Board

The Board of Directors manages the activities and finances and oversees the operation of the Club for the mutual benefit of its members. An active and concerned board, backed by the support and participation of the membership is vital to the effective operation and continuation of the Club.

We are looking for interested individuals who share a love of preserving our environment and natural spaces and want to help make this Club run smoothly. The Board is action oriented; conducts time limited meetings; fiscally accountable & responsible; makes decisions by consensus & inclusion and provides mentorship & ongoing support to new board members. We meet weekday evenings, 10 times per year, Sept. to June, rotating our meetings amongst various directors homes. As we handle our issues, we learn a lot about nature and environmental issues in Hamilton/Burlington and vicinity and have a good time doing it.

We are seeking a **Membership Director** and **Publicity Director** to join the Board at the October 2010 Annual General Meeting. For further information on these positions see the volunteering section on the home page of our Club web site, www.hamiltonnature.org. To seek further information or to volunteer, please contact Past President Jim Stollard at 905-634-3538 or at jjstollard@sympatico.ca.

Regular Meetings

Monday, September 13, 7:30 p.m.

“Canaries in the Coal Mine: What are Ontario's Birds Telling Us?” Mike Cadman

Mike Cadman has been a life-long student of birds. He received his Master of Science degree from the University of Toronto in 1980 based on studies of the American Oystercatcher. Mike, a Songbird Biologist with the Canadian Wildlife Service, is best known as the driving force behind the first and second Ontario Breeding Bird Atlas, both monumental projects. The new atlas was published in fall 2007. He has taken a lead role in many important survey programs designed to monitor Ontario's bird populations including the Forest Bird Monitoring Program, and Marsh Bird Monitoring Program. Mike is currently chair of the Canadian Breeding Bird Atlas Committee and co-chair of the Aerial Insectivore Working Group. In recognition of his extensive contributions to ornithology, he received a Distinguished Ornithologist Award from the OFO in 2007.

Sanc. Land Trust Committee

Join us at an informal monthly meeting to find out about the activities of the land trust program to protect land in our area and to steward our nature sanctuaries. All are welcome! We meet the evening of the 3rd Tuesday of each month. Contact Jen Baker, land trust coordinator, for details (905) 524 3339 or land@hamiltonnature.org.

Bird Study Group

Monday, September 20, 7:30 p.m.

Location: Burlington Senior's Center
2285 New Street,
Burlington
7:00-7:30: Decaf shade-grown coffee and snacks
7:30-9:30: Meeting, Auditorium B.
Contact: George Holland
905 945-3962

This is an informal meeting featuring a discussion of recent bird sightings, an identification session and a workshop or slides about some aspect of birding. If you are a beginning birder, come out to learn more about birds. If you are an experienced birder, come out to share your knowledge and enthusiasm.

This month: 60 years of birding in the GTA by George Bryant.



All of our hike leaders are volunteers who give their time and expertise freely. Participants are encouraged to share their knowledge and enthusiasm. Remember to bring along items you might need such as water, field guides, binoculars, insect repellent, etc. Some walks will be more rigorous than others, so please assess your ability and check with the hike leader if unsure.

No dogs please, as they startle wildlife, damage nests and plants and interfere with the enjoyment of other participants.

The Hamilton Naturalists' Club accepts no responsibility for injuries of any kind sustained by anyone as a result of participating in any of these events.

Upcoming Events

Wednesday, September 8th at 6pm

EXPLORING THE HAMILTON CEMETERY #2 WITH SHIRLEY KLEMENT

Last summer Shirley introduced club members to some of the famous, (or infamous), characters buried here; we are delighted that she will continue her exploration and tell more of Hamilton's past.

Meet in the parking lot of Dundurn Castle, just across the road.

Call for further info: (905) 336-5433

Saturday, September 25 at 2pm

FALL FLOWERS AT ROCK CHAPEL

This is a lovely time of the year to look for different Asters and Goldenrods and Dr. Jim Pringle is a renowned expert in this field. He will no doubt also show you many other interesting plants along the trails of this escarpment RBG property. Meet in the parking lot at 2pm.

Directions: Rock Chapel is west of Clappison's Corners, (Hwy #6 and Hwy #5) on Hwy #5. watch for a left turn onto Rock Chapel Rd and follow this past the old chapel and round the curve to the parking area. near the falls.

Leader; Jim Pringle (905) 527-1158

Saturday, October 2nd

DUNDAS VALLEY NATURE HIKE

Join us for a morning exploring the Sawmill trail in Dundas Valley Conservation area. This trail gives us an opportunity to enjoy late wild flowers, early fall colours and migratory birds. In general the trail is wide and well maintained, making for easy walking (some hills)

Meet at 8.45am in the parking lot off Governor's Rd., near the old Train Station. If you do not have a pass, be prepared to pay an entry fee for your vehicle.

Leader: Peter Scholtens: (905) 388-6415 or e-mail: gullchasedship@gmail.com



Do Flowers have Niches?	3
by Stefan Weber	
Public Wins Pleasantview Fight	5
reprinted from CATCH	
September's Harvest Moon Illusion	6
by Mario Carr	
Walk for Nature Raises Funds for Land Trust Projects	7
by Jen Baker	
Garter Snake Mating Ball	8
by George Bryant	
Coral Reefs with Jeremy Woodley	9
by Gord McNulty	
Insects Associated with Flowering Crown Vetch	11
by W.W. Judd	
Ancient Cedars of the Niagara Escarpment	12
by Gord McNulty	
Futurescape	13
by Joan Shewchun	
Noteworthy Bird Records March 2010	14
by Rob Dobos	
Downtown Students Become Nature Stewards	17
by Rob Dobos	
HNC Annual Financial Statements	18
Book Review: Birds of Canada	21
by Tracey Conley	
Learning to Fly	22
by June Hitchcox	
Upcoming Events	23

Photo: Glenn Barrett

40048074

Return Undeliverable Canadian Addresses to:
The Hamilton Naturalists' Club
Westdale P.O. Box 89052
Hamilton , ON L8S 4R5