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Newsletter of the Halton / North Peel Naturalist Club

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Volume 44, Number 1

September-October 2009

## Club Activities

**Indoor:** Meetings begin at 7:30 pm on the second Tuesday of the month, October to June at St. Alban the Martyr Anglican Church, 537 Main Street in Glen Williams, unless stated otherwise.

**Oct. 13: Wood Thrush Nest Predation, Lyle Friessen, songbird biologist, Canadian Wildlife Service** . Lyle Friessen aimed cameras at wood thrush nests to study predation. He recorded some fascinating natural history footage including the unanticipated arrival of hungry goshawks at several of the nests - and here's the kicker: he discovered that the goshawks appeared to wait until the young reached a certain size before grabbing them - that is, they deferred gratification for a more substantial future reward!  
The **Annual General Meeting** will follow the presentation.

**Nov. 10: Past Climate Change as Recorded by Coral Skeletons, Branwen Williams PhD** . Long time club members David and Christine Williams are justifiably proud of their high achieving daughter, Branwen who recently completed her PhD in Earth Sciences at Ohio State University. There she developed a method to extract oceanographic records from soft corals and black corals in the western tropical Pacific. Her data provided insight into recent changes in the oceans of this area. Branwen will continue her coral research this fall as she begins a post doctorate at the University of Toronto.

**Dec. 8: Pot Luck and Slides.** (Ray Blower is limited to 10 slides or 10 minutes, whichever comes first. Don Scallen is to be commended in advance for bringing a very tasty raspberry pie.) More details in next issue.

**Jan. 12: Pollination and Pollinators, Victoria McPhail, Credit Valley Conservation.** Another timely talk. Recently, concern has been growing about declines in the diversity and abundance of pollinating insects. Well known are the difficulties that honeybees are experiencing. Lesser known is the ominous decline in our native bumblebees. Victoria MacPhail, a Natural Heritage Technician at Credit Valley Conservation, did her MSc on pollination. She is very much involved in both Pollination Canada and the new Pollinator Park being developed in Guelph.

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**Outdoor:** Trips begin at the Niagara Escarpment Commission (NEC) parking lot at Guelph and Mountainview Road, Georgetown unless stated otherwise. If you would like to meet the group at the trip site, please speak to the trip leader for the location and directions to the starting point.

**Sept. 20:** Curry tract. North of the 401 on the east side of Guelph Line, across from Mohawk Raceway. Meet 10:00 am. For more information contact Kelly or Andrew at (905) 681-3701.

**Oct. 18:** Mount Nemo Conservation Area. South of the 401, 5317 Guelph Line. Meet 10:00 am. For more information contact Kelly or Andrew at (905) 681-3701

## President's Address

Another season is upon us and it looks like a year of great talks at our monthly meetings! I wish to thank Don Scallen for arranging the speakers.

Beginning in October, our meeting venue has changed to St. Alban's Church in Glen Williams. The room is bigger, overlooks the Credit River and is more accessible (no stairs). We can also use the hall for our December potluck/slide show. The cost is approximately the same as St. Andrews, and this venue may alleviate the need to rent more expensive spaces for some meetings. I want to thank Janice Sukhiani for finding the hall.

The June 2009 meeting was a round table discussion on the club's future, and I want to thank those that participated either by attending or e-mailing thoughts to us.

Here are some of what people had to say, with my comments in bold italics:

People would like to see the club continue to operate but questions were raised on how to do so if no one steps forward to be president. This seems to be the main stumbling block, as the other executive positions are filled. ***I will not be standing for president.***

We have people willing to be vice president and share that position. There was also the suggestion that the club could be run by committee but our constitution does not allow this. Currently, running the club is not too onerous a task given that we have scaled back many of our other activities, such as fundraising, young naturalists, special projects, etc. ***If interested members step forward, however, there is no reason we cannot resume these activities in the future.***

There was a question about what the by-laws say. ***We cannot find a copy of the by-laws nor does Ontario Nature have a copy on file.***

Concern was raised about non-members participating on club outings and whether or not they should be signing a waiver form. ***We have received a copy of the guidelines for outings that SPNC uses and will adapt it for our club. We will be leaving it to the outing leader to decide whether or not they wish to have non-members participate. We will be asking non-members to sign a waiver or become members.***

A suggestion was brought forward to raise the speaker fee from \$50 to a higher amount. ***At this time, the club executive feels it is not prudent to raise the fee but will offer extra to help cover the cost of mileage for those travelling further.***

If it came to disbanding the club how would we do this? Where would our remaining finances go? There was agreement, if our club was put on hold temporarily, we would likely lose momentum to be able to start up again. ***Our constitution does not have anything about this and neither does Ontario Nature. We will ask neighbouring clubs for by-laws to seewhere there is anything in theirs about disbanding.***

I feel the club will continue for years to come because people care about the community and the natural wonders that surround it. We need to protect our environment with the help of everyone and without us a link will be missing in the chain. Let us, the members, keep the club going and help out where we can. We can do this together with support of everyone.

At next month's AGM, we are asking the members to support a motion of raising the membership dues to \$25 for single and \$40 for family. The executive needs to due this to help pay for speakers, hall rental and other expenses as the number of paid members has dropped but costs have increased. We can operate this year by dipping into our reserve funds if necessary, but obviously this practice is not sustainable.

It has been a pleasure serving the members over the years but it is time to let others run the club and guide it on its new path. Kelly and I wish to thank all of you for your support, advice and guidance. Sierra will enjoy continuing going for hikes in the Halton Hills, Milton and upper Peel and watch it evolve. Please keep it green and so that her children can enjoy it too.

*Andrew Kellman*

## Why is there Air?

It was over 40 years ago (1965 in fact) that Bill Cosby released an award-winning album with the title "Why is There Air?" Although Cosby turned the question into part of his comedy routine, it really is a weighty question with sound scientific explanations and with profound implications for the current inhabitants of the planet.

To understand the significance of air and how it came to be, we need to go back to the origin of the earth some 4.54 billion years ago. That age is based on radiometric dating techniques. When it formed, the earth was quite an inhospitable blob of molten rock. In those early times, the earliest form of an atmosphere (hydrogen and helium) evaporated quickly due to the high temperatures of the earth's surface. Gradually, the earth cooled and clouds of gas accumulated in a thin envelope near the earth's surface. Those gases were largely released from the interior of the planet and consisted of mainly carbon dioxide and the relatively inert nitrogen. These gases (as well as those in the present atmosphere) are too light to form liquids or solids at the surface temperatures present on the earth and yet are too heavy to escape earth's gravity. The gravity associated with a planet the size of the earth is a key factor in the formation of any gaseous envelope or atmosphere around the planet.

Another consideration is the existence of water. Water, at least in any appreciable quantity, was not part of the original earth. Instead, all of the oceans were filled with water that originated from collisions with meteorites and other space materials. These space bodies consist of large proportions of ice. Considering that oceans now cover about 70% of the earth's surface, which is a lot of space particle collisions!

An earth atmosphere consisting mostly of carbon dioxide and nitrogen is hardly the place that would support our present life forms. As well, the carbon dioxide mixed with water to form acidic rain which bathed the planet in weak acid.

But life did originate and we, and an estimated 4 to 10 million other species inhabiting the earth, are testimony to that. So how did we get from a world that was quite inhospitable to most life forms to a place that now teems with all sorts of living things? It all has to do with the appearance of air.

The answer is associated with the evolution of the simplest forms of life on earth. No one can say for certain when that happened. Fossils of the organisms involved date back 3.5 billion years and structures (i.e. stromatolites) that they produced date to 3.8 billions years ago so that we know life existed on earth for at least that length of time. Living things could actually have started as long ago as 4.3 billion years when the earth's surface had cooled sufficiently to allow life to exist based on temperature limitations.

But those very first organisms were able to live without gaseous oxygen as it was absent from the original atmosphere. In fact, oxygen would have been lethal to them. They did have a great advantage when they were eventually able to create the chlorophyll molecule. With it, they could capture light energy from the sun. The sunlight energy was capable of splitting the water molecules into the component hydrogen and oxygen molecules. The oxygen was simply a waste product and they got rid of it by releasing it into the environment. Oh so very slowly, their internal photosynthetic chemistry caused the concentrations of released oxygen to build up in the atmosphere while the carbon dioxide concentrations diminished. This happened to the extent that they poisoned their own environment and only a small percentage of their kind were able to adapt to the new conditions. The organisms which could deal with the environment laden with oxygen proliferated evolved. Those resultant organisms are the ones we typically see dominating the globe and indeed, we ourselves are descendants of those same creatures.

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Currently, the earth's atmosphere is about 80% nitrogen and it is quite inert. Most of the remainder is oxygen with smaller amounts of argon, carbon dioxide and other gasses. Global carbon dioxide concentrations were 387 ppm by volume as of March 2009.

Due to recent human activity, it has increased from about 295 ppm in 1900 and continues to increase. This increase is relatively small in relation to total air composition but it has a very major role on the ability of the earth's

atmosphere to trap light energy reaching the earth from the sun. Carbon dioxide concentrations have been both higher and lower

than present throughout the history of the earth. That history could be the subject of a future article.

So air has a profound and critical role for life on earth; much greater than Cosby's tongue-in-cheek suggestion that the purpose of air is to fill up basketballs and volleyballs.

*W.D. McIlveen*



## Credit Valley Conservation

**Credit Valley Conservation is pleased to invite you to our Land Securement Celebration Saturday September 19, 2009, 9 a.m. to 1:30 p.m. at the Upper Credit Conservation Area.**

In 2005, we celebrated the initial securement of 80 acres of land in this area. Today, through the support of our funding partners – the Region of Peel, Ontario Heritage Trust Natural Spaces Program as well as the generous donations and participation by neighboring landowners, we have almost doubled the size of the Upper Credit Conservation Area for long term conservation and protection. We would be most pleased if you would join us on September 19, 2009 as we thank all of our funding partners and the participating landowners.

Hot Air Balloon Rides (weather permitting)  
BBQ Lunch - Guided Hikes - Sign Unveiling -, Electro-fishing Demonstrations.

RSVP to Sharlene Hardwar, Partnership Development Coordinator, by September 14, (905) 670-1615 Ext. 418 or [shardwar@creditvalleyca.ca](mailto:shardwar@creditvalleyca.ca) .

We sincerely look forward to seeing you at Upper Credit Conservation Area!

Directions: From Hwy. 24/Charleston Sideroad take Hwy.136/Main Street to Alton; in Alton turn right onto Queen Street to continue on Hwy.136/Porterfield Sideroad north at "L" curve outside Alton, Just before railroad track turn right into parking lot.

### Car Free Day

**Tuesday, September 22, 9:00 AM - 5:00 PM**

Walk, run, cycle, take a bus, take a train... What ever you do, don't drive today!

It isn't difficult to make a small sacrifice that will make a big difference! Think of today as an adventure, and get to work, school, and everywhere between without your car!

## Quest for H<sub>2</sub>O and Waterlife

### True or False?

1. In northern Ontario 20% of the native population has lived with a lifetime water boil advisory.
2. The U.S.A. spends more than Canada in research dollars and effort on Lake Superior
3. Canada is a “water rich” country.

All these questions are true, according to a new film coming out this fall entitled *Quest for Water* by two men who undertook a 5000 km cross-Canada bike trip.

With support from Canadian Environmental Network and a grant from the Walter and Duncan Foundation, they documented, through 30 days of interviews, residents’ success stories and activism behind water conservation across the country. They whittled 25 hours of tape down to 1 hour and the result will be available on the Canadian Environmental Network website ([www.cen-rec.org](http://www.cen-rec.org)) this fall. Also look at ([www.canadianodyssey.ca](http://www.canadianodyssey.ca)) for the trek these two men took.

The other film to look for is entitled *Waterlife*, a production by the National Film Board of

Canada and Primitive Entertainment. It looks at the last great water supply on earth and the 35 million people that live and play within its boundaries. It looks at the cancer rate not only in humans but beluga whales in the St. Lawrence River, why mostly girls are born in one area, follow a Anishinabe medicine woman who walked 17 000 kms around the lakes to help raise awareness, along with countless other stories.

You are taken through the air for a bird’s eye view, though the sewers of Windsor and too see how a fish looks at what we put in the water and what they eat.

For more information on the film and the Great Lakes check out the web site [www.waterlife.nfb.ca](http://www.waterlife.nfb.ca) .

*Andrew Kellman*

## Mushrooms of the Moraine: An all-day workshop

**Sunday, October 4, 2009 – 9:30 AM to 5:00 PM**

Learn to identify mushrooms and other fungi with naturalist and mushroom maven Richard Aaron ([natureteacher1@gmail.com](mailto:natureteacher1@gmail.com)) at the Koffler Scientific Reserve, located near Newmarket, Ont. This workshop is suitable for all levels, from beginner to advanced. Workshop is limited to 16 participants; register early to avoid disappointment.

Registration fee: \$36, with lunch being provided. To register, go to: [www.ksr.utoronto.ca](http://www.ksr.utoronto.ca). (Note: Registration opens on Sept 15).



## Cootes Paradise – July 2009

The canoe loaded on the car with all our gear, we headed out for a nice paddle in Cootes Paradise. This 250 hectare coastal wetland is located at the west end of Hamilton Harbour and is part of the Royal Botanical Garden’s network of nature sanctuaries. It has suffered over the years from a variety of assaults by humans, including wastewater discharge from the Dundas sewage

treatment plant and combined sewer overflows in Hamilton, non-native species such as common carp, purple loosestrife and several invasive species of grasses, and development in its 30,000-hectare drainage basin. In the mid-1990s, a fish way was built in the channel between Cootes and Hamilton Harbour.

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Migrating fish are manually sorted to prevent spawning carp from accessing the marsh, while allowing other species to pass. Thrashing carp uproot aquatic vegetation and stir up sediments, contributing to poor water clarity in the marsh. The high turbidity also prevents colonization by submerged aquatic vegetation, much to the detriment of many species of fish, birds and invertebrates that depend on clear water and thick plant growth.

Since the construction of the fishway, the carp population has been reduced from approximately 70,000 adults to about 1,000 individuals. In some years, aquatic vegetation has made great strides towards recovery, but restoration efforts can be quickly set back by severe rain storms that wash large quantities of silt down its tributaries. This problem is made worse by housing developments and agriculture in the watershed, particularly in the Spencer Creek catchment to the west.

Improvements to the Dundas sewage treatment plant and the construction of combined sewer overflow tanks in Hamilton have greatly reduced the amount of new nutrients entering the marsh via the sewage pathway, but little can be done to eliminate the large amounts of phosphorus already existing in the sediments. Wind and carp activity can churn up these sediments, reducing water clarity and fuelling the growth of suspended algae.



Andrew and Sierra Kellman

Despite the challenges facing Cootes, it is one of the most important waterfowl staging habitats on the lower Great Lakes, and one of the area's largest fish nurseries. It supports a variety of rare and vulnerable animal and plant species, including prothonotary warblers, eagles and spiny softshell turtles. Once away from the noise of the 403 highway and the spectre of the steel mills out on Hamilton Harbour, you can start to forget that you are in one of the largest urban areas in Canada. With this in mind, we

met Larry, Don, Bette-Ann, and Ann at Princess Point, our launching spot. With Don's kayak and the two canoes we headed out into the marsh.

The first area we visited was a narrow embayment to the west of Princess Point to look for basking turtles. It was a sunny, warm day, so Don found us lots of turtles to observe, including painted, snapping and map turtles. We continued west to look for birds in the trees. We saw or heard most of the "usual suspects", but did spot an osprey carrying a redwing blackbird, of all things, in its talons. We also flushed a juvenile bald eagle from some shoreline trees. We wondered that in very turbid environments like Cootes, if the fish-eating birds sometimes turn to other prey when they can't see the fish! Unfortunately on the day of our paddle, the marsh water was reminiscent of chocolate milk.



Don Scallen

Many of the aquatic plants that I remember we found with great excitement in 1997 were either no longer there or at least not visible. Working on the Cootes Paradise restoration project was my first "real" job when I finished university.

We headed toward McMaster University along the south shore, then headed back for a paddle up Chedoke Creek that runs beside the 403. This is a highly urbanized tributary that often suffers from water quality issues, and has that "characteristic smell". After a few minutes, we spotted a deer at the edge of the river. This highlight quickly became a lowlight when we realized it appeared stuck on something in the water. It broke free, but it had suffered injury to its hind legs and could not stand or walk properly. We concluded that maybe it had been hit by a car on the highway and had struggled down the embankment into the creek.

After some discussion of whether we should call someone (Ontario Society for the Protection of Cruelty to Animals or the Ministry of Natural

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Resources?), we decided that neither agency would be thrilled with accessing the creek on a Sunday and likely would be unable to do anything. Even discharging a firearm in the city to dispatch an injured deer would likely not be easy (city police?), so we decided to let nature take its sometimes cruel course.

Trying not to let the injured deer become a downer at the end of our trip, we paddled back to

the starting point. Don continued on for some more adventures in his kayak. All in all, we were very pleased with the patience of our two year old daughter, Sierra, who only began to protest at the end of our three hour paddle. We ate lunch at Princess Point and then headed home. It's encouraging to know that even in a large urban area, nature can sometimes still only be minutes away!

*Andrew Kellman*

Reference: [http://www.rbg.ca/pages\\_sci\\_conserv/sci\\_conserv\\_nature2.html](http://www.rbg.ca/pages_sci_conserv/sci_conserv_nature2.html)



**Songbirds Only Avian Rehabilitation (S.O.A.R)**  
**Open house**  
**Saturday, September 12, 12:00 pm to 4:00 pm**  
**145 Inkerman Street, Rockwood**

BBQ  Penny Sale  Door Prizes  View Facility

For more information contact Judi Drake – [drake@senetex.net](mailto:drake@senetex.net)  
S.O.A.R. is a registered Canadian Charity dedicated to providing quality care to orphaned or recovering songbirds as well as obtaining professional medical care for the injured.



Halton/North Peel Naturalist Club, Box 115, Georgetown, Ontario L7G 4T1

**Executive**

President: Andrew Kellman (905) 681-3701  
Past President Kelly Bowen (905) 681-3701  
Vice-President: Vacant  
Secretary: Janice Sukhiani (905) 693-8227  
Treasurer: Marg Wilkes (905) 878-6255

**Appointments**

Membership: Christine Williams (905) 877-1539  
Newsletter: Gerda Potzel (905) 702-1681  
Ontario Nature Representative: Vacant  
Public Relations: Vacant  
Webmaster: Andrew Kellman  
Crozier Property Steward: Mary Wilke  
Hardy Property Steward: Ray Blower

Membership for one year: \$20 Single; \$30 Family  
The Halton/North Peel Naturalist Club is an affiliated member of Ontario Nature

Email submissions/questions/concerns to: [gpotzel@sympatico.ca](mailto:gpotzel@sympatico.ca)  
[www.hnpnc.com](http://www.hnpnc.com)

Halton/North Peel Naturalist Club

Membership for September 2009 to September 2010

\_\_\_\_\_ Renewal or \_\_\_\_\_ New Member(s)

Name(s): \_\_\_\_\_

Address: \_\_\_\_\_

Postal Code: \_\_\_\_\_ Telephone: \_\_\_\_\_

E-mail: \_\_\_\_\_

\_\_\_\_\_ Single (\$20.00) \_\_\_\_\_ Family (\$30.00)

Do you have any suggestions for programs or field trips?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**WAIVER OF LIABILITY**

(**must** be signed by anyone planning to attend field trips or other outdoor activities)

In making this application, I affirm that I am in good health, capable of performing the exercise required to participate, and that I accept as my personal risk the hazards of such participation and will not hold the Halton/North Peel Naturalist Club or its representatives responsible.

In consideration of the Halton/North Peel Naturalist Club accepting my application, I hereby and forever release and discharge the Halton/North Peel Naturalist Club and its officers, directors, servants and agents from any liability whatsoever arising as a result of my participation in these trips and declare that this is binding upon me, my heirs, executors, administrators and assigned.

Signature(s): \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ Date: \_\_\_\_\_

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Please fill out this form and bring it in to next indoor meeting. or mail with payment to:

Halton/North Peel Naturalist Club,  
P.O. Box 115,  
Georgetown, Ontario, L7G 4T1