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Newsletter of the Halton / North Peel Naturalist Club

Volume 4, Number 2

November – December 2014

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UPCOMING SPEAKERS

Meetings begin at 7:30 pm on the second Tuesday of each month, September to June. The meeting location is St. Alban the Martyr Anglican Church, 537 Main Street, Glen Williams.

November 11, 2014

David d'Entremont, Terrestrial Ecologist at RBG:

Damselflies and dragonflies (Odonata)

They're drop dead gorgeous, ancient and they dance upon the air. Damsels and dragons are David's passion. He recently identified a new species for RBG where he works. Club members who work for CVC should be particularly interested in attending this talk as apparently "odonataphilia" is sweeping their ranks.

December 9, 2014

Annual Pot Luck Dinner

Come for the conviviality and Ray's legendary bean salad. Usually we invite members to share a few nature images after the feast and that will likely be the program again this year. Stay tuned for updates closer to the event.

OUTDOOR EVENTS

November 15, 2014

Late Flowering Plants Survey Hike

Bill McIlveen will be leading this 13th annual survey to find and identify any flowering plants that are still blooming late in the season at sites around Halton Hills. Meet at the Niagara Escarpment Commission (NEC) parking lot at 232 Guelph Street in Georgetown at 1PM.

December 27, 2014

Christmas Bird Count

The annual Christmas Count for Halton Hills will take place in the standard survey area around Halton Hills. The area will be divided into smaller areas with participants assisting experienced leaders. This is a great way for beginners to learn their birds. If you would like to join in any aspect of the count, please send us a message at info@hnpnc.com or call Fiona at (905) 693-9719.

(PAST) PRESIDENT'S MESSAGE

Dear Members new and old (or not so old!),

I'm not sure I am still qualified to write this letter as I am now officially Past President. We are very happy to welcome newly elected secretary Emily Dobson to our board and thrilled to have had interest from new members in joining our executive! Many thanks to Anne Fraser for her work as past Secretary, and to Jeff Normandeau for his past work on the newsletter.

Club membership fees are now due. If you haven't already paid up, please bring your money to the next meeting or pay online at our website via PayPal. Your financial support is critical to our ability to provide great speakers, rent a meeting space, and cover our insurance costs. Thanks!

We have some great speakers and evening events to look forward to, including the Pot Luck Dinner in December, but we do need more volunteers to lead nature walks. We also welcome articles for the newsletter or website from members. Please note that these articles express the views of the author not of the club as a whole.

Today, November 1, we had our first snow of the year. Has winter already officially begun? Be sure to keep your feeders full and enjoy the winter birds.

*Best wishes,
Fiona*

Halton/North Peel Naturalist Club, Box 115, Georgetown, Ontario L7G 4T1
Charity Registration number: 869778761RR0001

<u>Executive</u>		<u>Appointments</u>	
President:	<i>Vacant</i>	Membership:	Valerie Dobson (905) 828-1729
Past President:	Fiona Reid (905) 693-9719	Newsletter:	Sandy Gillians
Vice-President:	Don Scallen (905) 877-2876	Ontario Nature Representative:	<i>vacant</i>
Secretary:	Emily Dobson (647) 996-6512	PR/Webmaster:	Sandy Gillians
Treasurer:	Janice Sukhiani (647) 408-9515	Stewards:	
Roving:	William McIlveen, Kevin Kerr, Nikki Pineau, Anne Fraser	Crozier Property:	Marg Wilkes
		Hardy Property:	Ray Blower

Membership for one year: \$30 Single; \$40 Family
The Halton/North Peel Naturalist Club is an affiliated member of Ontario Nature.

www.hnpnc.com | info@hnpnc.com

Welcome New Members!

Margaret & John Beaudette joined
October 2014

Johanna Perz joined October 2014

Aneta King joined September 2014

Tom Clarke joined August 2014.

Bryan Martlin joined July 2014

Marisa Jokelainen joined June 2014

Lisa Petrie joined June 2014

Article Of Birds, Cats and the Urban Landscape

There are ten species of birds that commonly nest in suburban Georgetown: Mourning Dove, Black-capped Chickadee, House Wren, American Robin, European Starling, Northern Cardinal, House Finch, Chipping Sparrow, Common Grackle and Brown-headed Cowbird - a nest parasite.

One other, less common nesting species is the Chimney Swift, relying on

the specialized nesting habitat of uncapped chimneys.

I have observed another three species nesting one time in suburban Georgetown: American Crow, Tree Swallow and Baltimore Oriole. Blue Jays and Red-winged Blackbirds are probably occasional nesters as well.

I can write about this with some authority, because I've been a resident of suburban Georgetown most of my life. I realize that homeowners fortu-

nate enough to live along Silver Creek ravine may entertain other nesting species on their properties. Kerry Jarvis and Melitta Smole, former HNPNC members, attracted Great-crested Flycatchers and Screech Owls to bird boxes on their ravine lot for example. Downtown Georgetown, with its mature tree canopy, may also provide habitat for a few other species.

Regardless, town and city-scapes have a very low diversity of nesting birds. This contrasts with the higher diversity found in natural areas surrounding those urban centres. Consider the results of the second Atlas of the Breeding Birds of Ontario (2001-2005.) The

atlas project divided Southern Ontario into “squares” measuring ten by ten kilometres. The “square” that held most of Georgetown also contains forest, wetland, fields and agricultural land. This “square” harboured 60 species of confirmed breeding birds, six times greater than the number nesting commonly in Georgetown’s urban area. Evidence gathered – primarily by club veteran Ray Blower – also identified 35 additional species as probable breeders and 17 as possible breeders.

Some specific comparisons of various categories of breeding birds between the atlas square and urban Georgetown are instructive.

Category	Number of breeding species in atlas square	Number of breeding species in Georgetown urban area
Warblers	8 confirmed, (8 others possible or probable)	0
Sparrows	5 confirmed, (5 others possible or probable)	1
Swallows	5 confirmed	1 rarely
Woodpeckers	5 confirmed	0

This low diversity of nesting birds in Georgetown applies almost certainly to other urban areas throughout the province. The urban landscape is simply not suitable for most birds. Birds avoid nesting in our towns and cities because of our roads and how we landscape our parks and yards. We remain wedded to our lawns. (I’m guilty – my front yard is still largely cropped grass.) Our yards lack the cover, the plant diversity, the water, the insects, which birds need to survive. As housing density increases,

and it will, the situation will become even bleaker.

Some may invoke free-roaming cats to help explain the lack of bird diversity in urban areas. After all, studies have found that cats kill billions of birds (and small mammals) annually. While cats are almost certainly a major problem in rural areas where they can gain access to fields and woodlands, they shouldn’t be blamed for the low diversity of birds and mammals in urban settings. I suspect that if, miracu-

lously, all of Georgetown's cats were kept indoors starting today, the town's diversity of birds would change little. The same ten species would continue their residence; the rest would continue to keep their distance.

Homeowners, both urban and rural, need to be more humble. It is disingenuous to condemn cat owners for letting their pets roam, while we ha-

bitually fire up the lawn mower for another diversity-reducing shearing of our grass. This applies to suburbia, but also to the ridiculous swaths of turf that surround rural estates. Yes cats are killers, but those that roam urban environments have little impact on an environment already severely compromised by us.

- Don Scallen

Article

Going Viral – The Real Way

All readers must surely have heard of the ongoing outbreak of the Ebola hemorrhagic fever that is occurring in several countries in West Africa. The disease is indeed a nasty one that starts with a fever, muscle pain, and headache followed by vomiting, diarrhea, and impaired kidney and liver function. Internal and external bleeding may also occur. The mortality rate of the current outbreak stands at about 70%. As of 14 October 2014, 9,216 suspected cases and 4,555 deaths had been reported. Given that the total population of the three main affected countries, Liberia, Sierra Leone, and Guinea, is over 22.1 million people, this translates to only 0.041% of the population infected. While this may seem to be a very small proportion, it must be realized that the number of people infected is continuing to increase.

Ebola hemorrhagic fever is caused by a virus. Among a large number of virus diseases affecting humans, there are some rather familiar types including AIDS, chickenpox, common cold, hepatitis, influenza, rabies, shingles, measles, SARS, West Nile fever, and

yellow fever. Many of these have multiple strains. A virus is not a living organism though it does share some characteristics with pathogens of plants and animals. Instead, viruses are essentially sections of rogue DNA or RNA genetic material surrounded by a protein coating. They are capable of reproducing (increasing in number) by causing their host to make more copies of the virus, each one capable of causing the disease in the host.

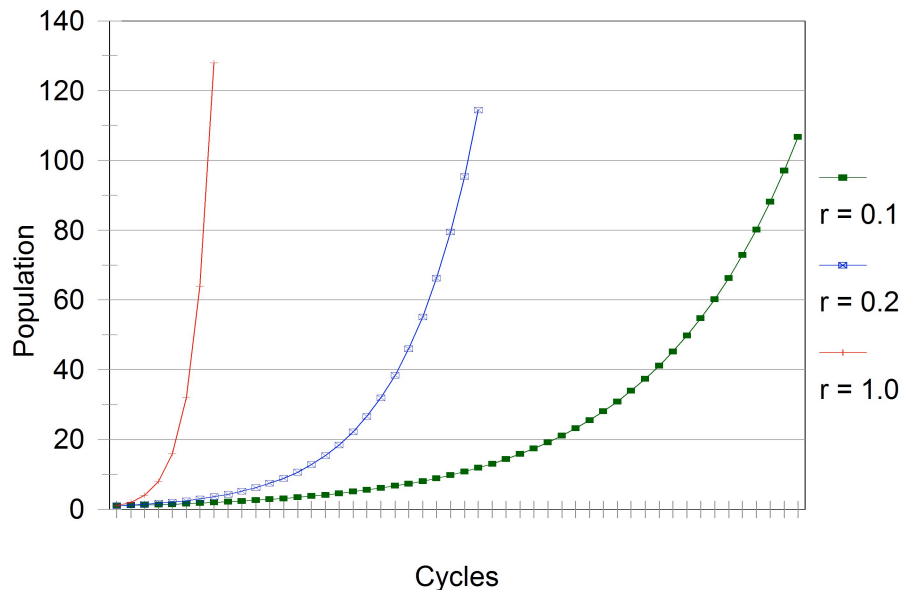
All living species as well as viruses need to be able to reproduce themselves. If they don't, then, over time, they will simply die out. If a species is to retain a stable population, then they need to replace themselves on a one for one basis. In the case of animals including humans, the female must, during her lifetime, produce two offspring (male and female on average) that live to reproduce themselves. Of course, not all offspring will survive to do so therefore the females must produce in excess of the minimum to compensate for the premature loss of the young. If she doesn't, the species will die away. If she produces more than the number required to maintain

the *status quo*, then the population will increase. This is simply a basic biological principle that often gets overlooked.

In general, a reproducing population will increase at rates in excess of the minimum. The rate of increase is much like the way one must pay interest on the portion of an unpaid loan or receives interest (albeit very low these days) on a bank account. The longer that such an account exists, the greater will be the amount of accrued interest.

The same thing applies in biological systems and the data can be plotted mathematically in graphs (Fig. 1). The rate of increase, 'r', can vary widely. A plant for example may produce just a few seeds or may produce thousands of seeds each year. The larger the number of seeds that are produced, the faster that an unchecked population can grow. When a population of some species is growing at a high rate (e.g. a rate higher than we humans wish it to be), we reach epidemic or invasive proportions.

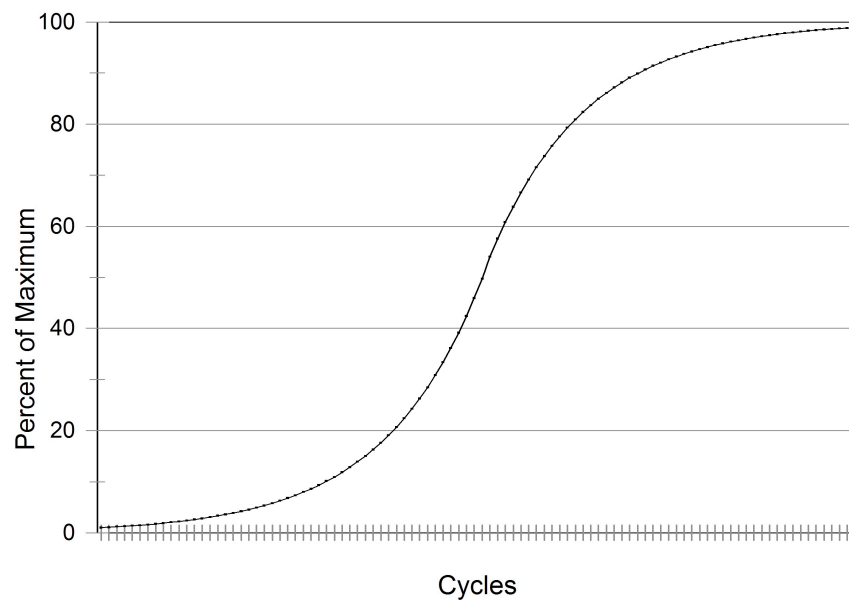
Figure 1. Examples of population growth curves for species reproducing at different rates.



In reality, a species will typically increase until there is no more space available or all of the resources are used up (Fig. 2). Dandelions, for example, will spread in a newly cultivated field until there is no more space left in which a seed can germinate and grow into a new plant. Disease organisms such as potato blight will spread through the crop until it has infected all of the available host foliage. The same principle applies to all organisms – fungal, bacterial, viral, insect,

mammal, etc. Populations simply cannot increase forever. As well as exhausting all available resources or space or hosts, other factors will often have a bearing on the situation for they too will become hosts for a different type of organism. For example, an infestation of caterpillars on a crop will be subjected their own set of parasites and hyper parasites that keeps the population in check. And it is never in the long-term interest of a parasite to kill all of its hosts.

Figure 2. Graph showing the 's-shaped' pattern of colonization of a suitable habitat by an introduced organism.



In reality, not every seed will germinate, or the conditions for growth are not suitable, or the plant or whatever organism is itself subject to its own parasite. In a balanced natural system, the growth of populations of all types of biological entities is constrained and the system functions as nature intended. The problem comes when a particular species does not have its inherent control systems. This is usually the case (initially) for a newly introduced species and it reaches undesirable numbers. This applies to plants, insects, fungi, bacteria, viruses, etc. But the net effect of all the factors that may come into play are keeping the 'r' rate lower.

Now, in relatively recent times, the computer programmers needed a word to apply to situations when malicious software was introduced into the electronic communications used by functioning computers. They latched on to the term 'virus' from the field of biology for they considered the desirable

programs running on the computer to be 'infected' by the undesirable software. They could have just as easily used the term 'fungal' or 'bacterial' or even 'epidemic' to indicate the ability of the software to spread to other computers. The application of the term 'viral' still remains incorrect. Even more recently, people have used the term 'viral' to indicate the rapid spread of a photo, film clip, or some type of information among cell phone users and the like. The use of the word in this way is quite different from that where the malicious software is involved. It is even more distant from the true meaning of 'viral' and its use should be discouraged. Hopefully, time will cause the term to become obsolete in this manner of use and that its use will return to where it truly belongs – restricted to the world of virologists that are dealing with the spread of real issues including infectious diseases such as Ebola.

- W. D. McIlveen

Nature News

Court Date with the Province

Ontario Nature, CPAWS Wildlands League and Ecojustice are heading to court to protect Ontario's most vulnerable species. They want the provincial government to fulfill its promise to use a strong, science-based approach to species protection. Instead Ontario created a regulation that allows major industries such as forestry, mining and oil and gas pipelines to avoid strict standards intended to protect at-risk plants and animals and their habitats.

A panel of judges will hear the case over 1.5 days between Jan. 14-15 in an Osgoode Hall courtroom in downtown Toronto. A decision could happen at the end of the hearing or sometime afterwards. Read more about the court case at <http://bit.ly/1025qON>

Nature Canada Town Hall Meeting

Nature Canada is holding a town hall meeting by telephone on November 20th to hear about the interests and concerns of its community of supporters. You'll also learn about Nature Canada's new programs and initiatives and meet its new Executive Director, Eleanor Fast. Register at:

<http://naturecanada.ca/news/blog/join-nature-canadas-town-hall-meeting>

Ontario's Invading Species Awareness Program

Wondering how to report invasive species in your area? There's a new online reporting system as well as a smartphone app that makes it easy to report your observations. Check it out at <http://www.eddmaps.org/Ontario>.

Join the webinar presentation on November 20, 2014 from 12PM to 1PM, and ask the experts questions about EDDMapS Ontario. For more information contact david_ryrie@ofah.org or call 1-800-563-7711.

There's more great stuff at www.invadingspecies.com

Bruce Trail App for iPhone and iPad

Plan, track, and log your hikes with this easy-to-use, official Bruce Trail App. Carry the most up-to-date Bruce Trail information with you on your day-hikes or long-distance adventures on the Niagara Escarpment. An Android version will be available in late 2015/early 2016 For more information:

<http://brucetrail.org/pages/trail/app>

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Halton/North Peel Naturalist Club Membership Form

_____ Renewal or _____ New Member(s) Date _____

Name(s): _____

Address: _____

Postal Code: _____ Telephone: _____

E-mail: _____

Membership renewal fee

from September through to August _____ Single (\$30.00) _____ Family (\$40.00)

New members' fees from sign-up date:

December through to August _____ Single (\$22.50) _____ Family (\$30.00)

March through to August _____ Single (\$15.00) _____ Family (\$20.00)

June through to August _____ Single (\$ 7.50) _____ Family (\$10.00)

Do you have any suggestions for programs or field trips?

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: _____

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

Halton/North Peel Naturalist Club Meeting Location

St. Alban the Martyr Anglican Church, 537 Main Street, Glen Williams

