

# localnews

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## LIVING

# A list of online natural history resources

## Wide variety of sites on plants, animals and insects

This week, I would like to share my personal list of some of the most useful and interesting natural history websites. Many are helpful for identification and background information purposes while others tell you what plants, animals or even constellations to be watching for at a given time of year. The number of nature sites on the web is staggering so this is by no means the definitive list, but these are some of the sites I go to most often. Many sites cover a wide range of organisms and have therefore been placed in the "general" category.



Drew Monkman

OUR CHANGING SEASONS



DREW MONKMAN Special to The Examiner

Go to Andy's Northern Ontario Wildflowers to find the name of this common species. Click on "selection by colour." Email Drew at [dmonkman1@cogeco.ca](mailto:dmonkman1@cogeco.ca) if you want him to check your answers for the flower, frog, and dragonfly.

### GENERAL

1. Encyclopedia of Life (EOL) () The EOL is no less than a free, online, collaborative encyclopedia and database for every one of the 1.8 million species that are named and known on this planet. It is compiled from existing databases and from contributions by experts and non-experts throughout the world. "Imagine an electronic page for each species of organism on Earth..." - Edward O. Wilson

2. Science Daily () Science Daily is free and covers the latest research findings in plants and animals, climate, evolution, environmental issues, health, computers, space and a multitude of other topics. It is updated every 15 minutes. Peruse the Science Books section for reviews and information on books before you buy. Here is the introduction to an article from just last week. — "Scientists have discovered that insects contain atomic clues as to the habitats in which they are most able to survive. The research has important implications for predicting the effects of climate change on the insects, which make up three-quarters of the animal kingdom."

3. eNature () eNature.com is possibly the web's premier destination for information about the wild animals and plants of Canada and the United States. The site has won numerous awards and accolades. Its core content of wildlife information is the same data set used to create the printed Audubon Field Guides. You can search or browse more than 5,500 North American species and sort them by name, family, region, etc. It also includes excellent guides to the night sky.

4. Animal Diversity Web () Animal Diversity Web is an online database of the natural history, distribution, classification, and conservation biology of thousands of species from the different classes of the animal kingdom including mammals, birds, insects, amphibians, fishes, and reptiles. The species accounts include text, pictures of living animals, photographs and movies of specimens, and/or recordings of sounds.

5. Boreal Forest () Although this site deals more specifically with the boreal forest of northwestern Ontario, nearly all of the species descriptions apply to central Ontario as well. I find it most useful for the information on trees, flowers, ferns, sedges, grasses, mosses, and lichens. However, there is also information on all of the animal classes.



DREW MONKMAN Special to The Examiner

Try identifying this dragonfly at BugGuide.

6. Patuxent Wildlife Research Center () Patuxent is a premier research institute for wildlife science in the U.S. Scientists are currently conducting research on a wide variety of scientific topics including amphibians and reptiles, biodiversity, birds, contaminants, wetlands and communities and others. You'll find a wealth of information here; everything from frog calls and a bird identification info centre to the latest news on whooping crane conservation and amphibian population monitoring.

### PHENOLOGY

Phenology is a branch of science concerned with the observation and study of cyclical and often predictable biological phenomena such as emerging leaves, fruiting trees, and the appearance of migratory birds. Many of these events are sensitive to climatic variation and change, and are simple to observe and record.

7. Step Outside () Published two to three times per month, Step Outside is a compilation of seasonal happenings right here in the Kawarthas. In many ways it is an electronic version of my column. You'll find details, photographs, and interesting links regarding specific flora, fauna, night sky, and climate events, many of which are taking place just outside your home or school. The site began in 2008 when staff from the Ontario Ministry of Natural Resources Biodiversity Section began to chronicle interesting nature events. This site is of particular interest to teachers who want to develop an interest in natural history in their students.

8. This Week At Hilton Pond () This

website is mostly devoted to weekly updates about phenology at Hilton Pond Center for Piedmont Natural History in York, South Carolina. Almost every week you'll find a new, interesting story about some plant, animal, habitat, or natural phenomenon. Surprisingly, most of these accounts apply equally well to the Kawarthas.

9. Coffrin Center for Biodiversity () Here, you can view phenological records - weather, plant and bird events, etc. - for almost every day of the year in Green Bay, Wisconsin. The records go all the way back to the year 2000. Green Bay is at the same latitude as Peterborough and has generally the same mix of plants and animals.

### MAMMALS

10. Guide to New York State Mammals () Since Central Ontario and New York State share pretty much the same mammals, this site, too, is very useful. You will find extensive information on species from all of the mammal families including weasels, bats, moles, and shrews, as well as the larger mammals. Audio is included with the vocal mammals.

### REPTILES AND AMPHIBIANS

11. Nature Watch (/) NatureWatch offers a series of ecological monitoring programs that encourage you to become a citizen scientist. Data collected through NatureWatch is being used to add to our knowledge of the effects of climate change and other impacts on biodiversity. Click on FrogWatch for information on frogs and to learn their calls.

12. Adopt-A-Pond () The Adopt-A-



Special to The Examiner

You should be able to identify this frog by going to Nature Watch and clicking on FrogWatch.

Pond Wetland Conservation Program provides teachers, students and community groups with information resources and educational opportunities to conserve, restore and create wetland habitats. Click on the species guides to learn about Ontario's frogs, toads, salamanders, turtles, snakes, and lizards.

### FISH

13. Fishes of Canada () Here you'll find a treasure-trove of information on Canada's fishes including description, distribution, ecology, and reproduction. You'll also find all of the non-game species.

### BIRDS

14. Cornell Lab of Ornithology () Cornell is a world leader in the study, appreciation, and conservation of birds. Click on "All About Birds" for on-line bird guide which includes vocalizations.

15. The Birds of North America Online () BNA Online provides comprehensive life histories for each of the 716-plus species of birds breeding in the U.S.A. and Canada. There are also image and video galleries showing plumages, behaviours, habitat, nests and eggs, and more. You will need to purchase a subscription.

16. Life Histories of North American Birds () Arthur Bent (1866-1954) was a famous American ornithologist who wrote the 21 volume series Life Histories of North American Birds, which provided a huge amount of behavioural information not available in the standard field guides. In this free electronic version of the books, you can read these delightful anecdot-

al accounts of the behaviour of common birds. The observations were made mostly in the early part of the 20th century and therefore provide a cultural history lesson.

17. eBird Canada () Offering real-time, online checklist program, at eBird you will find rich data on bird abundance and distribution, including seasonal bar charts for most everywhere in the world including Peterborough County.

### INVERTEBRATES

18. BugGuide () BugGuide is an online community of naturalists who enjoy learning about and sharing observations of insects, spiders, and other related creatures. The site collects photographs of bugs from the United States and Canada for identification and research. Use the clickable guide to identify most any insect-like creature you might come across.

19. Odonata Central () Odonata Central makes available what is known about the distribution, biodiversity, and identification of Odonata (dragonflies and damselflies). Start with the checklist feature to get a list of those species found in Ontario. You can then go on to browse the photographs to try to identify a dragonfly or damselfly you may have seen.

20. Monarch Watch () This wonderful site provides information on every aspect of monarch butterflies including conservation, monarch biology, butterfly gardening, monarchs in the classroom, and even weather near the overwintering sites in Mexico.

### PLANTS

21. Ontario Wildflowers () An online "field guide" to Ontario's wildflowers. Search by name, habitat, colour, leaf characteristics, or just about any other criteria.

22. Ontario Trees and Shrubs () The same as above, but this time for trees and shrubs.

23. Andy's Northern Ontario Wildflowers () A richly illustrated site to the wildflowers of the Sudbury area, almost all of which are also found here.

### FUNGI

24. MushroomExpert.com () This site provides everything you'll need to study and identify mushrooms. You'll also find a handy guide to tree identification, since mushrooms are often associated with a specific type of tree.

### ASTRONOMY

25. Earth Sky () This site will show you the most interesting and noteworthy planets, stars, and constellations that are visible on any given night. For example, watch at dawn on Feb. 28 for a dazzling Venus right beside the crescent moon in the southeastern sky.

Next week, I'll take a look at more sites that focus on the province of Ontario as well as some that pertain to the local scene. I'll also present two electronic mailing listservs that notify birders of interesting local and province-wide bird sightings.

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