



TORONTO FIELD NATURALIST

Number 594 March 2013



White-tailed deer photographed by Ken Sproule in Rouge Park, June 2012
See Nature Arts Event on page 9

REGULARS

Coming Events	19
Extracts from Outings Reports	8
For Reading	18
From the Archives	17
Keeping in Touch	14
Monthly Meetings Notice	3
Monthly Meeting Report	7
President's Report	6
TFN Outings	4
Weather – This Time Last Year	18

FEATURES

Nature Arts Event	9
Salamanders	10
Toronto's Blue Cohoshes	13
TFN Grant Reports	15

Toronto Field Naturalist is published by the Toronto Field Naturalists, a charitable, non-profit organization, the aims of which are to stimulate public interest in natural history and to encourage the preservation of our natural heritage. Issued monthly September to December and February to May. Views expressed in the Newsletter are not necessarily those of the editor or Toronto Field Naturalists. The Newsletter is printed on 100% recycled paper.

ISSN 0820-636X

IT'S YOUR NEWSLETTER!

We welcome contributions of original writing of observations on nature in and around Toronto (up to 500 words). We also welcome reviews, poems, sketches, paintings and digital photographs. Please include "Newsletter" in the subject line when sending by email, or on the envelope if sent by mail. Please re-name digital photographs with the subject and your name (abbreviations ok); scale your photos to less than 1 MB each. In the accompanying email include location, date and any interesting story or other information associated with the photograph.

Deadline for submissions for April issue: Mar 8

NEWSLETTER COMMITTEE

Jenny Bull (co-editor), Karin Fawthrop, Nancy Fredenburg, Elisabeth Gladstone, Mary Lieberman, Judy Marshall, Ruth Munson, Toshi Oikawa, Wendy Rothwell (co-editor).

Printing and mailing: Perkins Services Inc.

BOARD OF DIRECTORS

President & Outings	Margaret McRae	
Past President	Bob Kortright	
Vice President & Monthly Lectures	Nancy Dengler	
Secretary-Treasurer	Charles Crawford	
Communications	Alexander Cappell	
Membership & Newsletter	Judy Marshall	
Monthly Lectures	Corinne McDonald	
Monthly Lectures	Lavinia Mohr	
Nature Reserves & Outings	Charles Bruce-Thompson	
Outreach	Tom Brown	
Webmaster	Lynn Miller	

MEMBERSHIP FEES

\$20 YOUTH (under 26)
\$30 SENIOR SINGLE (65+)
\$40 SINGLE, SENIOR FAMILY (2 adults, 65+)
\$50 FAMILY (2 adults – same address, children included)

No HST. Tax receipts issued for donations. Send membership fees and address changes to the TFN office. *Please note: TFN does not give out its membership list.*

Toronto Field Naturalists
1519-2 Carlton St, Toronto M5B 1J3

Tel: 416-593-2656
Web: www.torontofieldnaturalists.org
Email: office@torontofieldnaturalists.org



Great horned owl photographed by Mike Quigg on the Leslie St Spit.

Mike works for our printer, Perkins Services Inc, and preps the newsletter before it is printed. He is an avid nature photographer.

TFN MEETING

Sunday, March 3, 2013

2:30 pm

Nature Where Plates Collide, North Pacific & Himalaya

Peter Money, geologist and TFN member

VISITORS WELCOME!

SOCIAL: 2:00 – 2:30 pm

Note change of venue:

Room 003, Northrop Frye Bldg, 73 Queen's Park E.,

(Immediately southeast of Emmanuel College, south of the Museum subway station exit on the east side of Queen's Park). Enter on either the west or north side of the building. The west entrance is wheelchair accessible.

For information: call 416-593-2656 up to noon on the Friday preceding the lecture.

*The shadows of the
Trees of winter, as lovely
as the trees themselves!*

*Snow? Oh no! It's just
the redpolls in the birches
raining down the chaff*

Haikus by Diana Banville

Upcoming Lectures

Apr 14 **Insect Life Cycles**
James Kamstra, terrestrial
ecologist

May 5 **Ecology of Breeding Yellow-
bellied Sapsuckers**
Doug Tozer, ornithologist

**Please send your suggestions
for speakers for the 2013-14
TFN monthly lecture series to
the TFN office
(see contact info, page 2)**

TFN OUTINGS

- TFN events are conducted by unpaid volunteers.
- The club assumes no responsibility for injuries sustained by anyone participating in our activities.
- Children and visitors are welcome at all TFN events. Children must be accompanied by an adult.
- If you plan to bring children in a stroller, be aware that there may be steps or other unsuitable terrain.
- Please do not bring pets.
- To get to outings on time, check TTC routes and schedules (www.ttc.ca or 416-393-4636).
- Outings go rain or shine: check the weather by calling 416-661-0123 so you will know what to wear.
- Wear appropriate footwear for walking on trails which may be muddy, steep or uneven.

- Sat
Mar 2
11:00 am **QUEEN'S QUAY AND HARBOURFRONT CENTRE – Nature Arts**
Leaders: Augusta Takeda and Stephen Bartlett
Meet at the 2nd floor Food Court of the Queen's Quay Terminal building. Bring what you need for sketching, photography or writing. Bring anything you wish to share with the group after lunch.
- Sun
Mar 3
2:30 pm **LECTURE – Nature Where Plates Collide, North Pacific and Himalaya**
Speaker: Peter Money, geologist and TFN member
Room 003, Northrop Frye Bldg, 73 Queen's Park E., See page 3.
- Wed
Mar 6
10:00 am **HUMBER BAY PARK WEST – Birds and Plants**
Leader: Miles Hearn
Meet at the southwest corner of Park Lawn Rd and Lake Shore Blvd W for a circular walk. Bring binoculars. Morning only.
- Sat
Mar 9
10:00 am **COLONEL SAMUEL SMITH PARK – Birds**
Leaders: Jim and Petra Grass
Meet at the southwest corner of Lake Shore Blvd W and Kipling Ave. Bring binoculars. Morning only.
- Tues
Mar 12
11:00 am **DON RIVER AND NESBITT RAVINE – Nature Walk**
Leader: Roger Powley
Meet at the southwest corner of Merton St and Mount Pleasant Rd for a circular walk of 2- 2 ½ hours. Bring lunch and binoculars.
- Sat
Mar 16
10:00 am **ASHBRIDGE'S BAY AND EASTERN BEACHES - Birds and Trees**
Leader: Bob Kortright
Meet at the southwest corner of Coxwell Ave and Lake Shore Blvd E. Bring binoculars and lunch. Outing will end on Queen St E.
- Sun
Mar 17
2:00 pm **CROOKSHANK CREEK WALK FOR WORLD WATER DAY – Lost Rivers**
Leader: John Wilson
Meet at the southeast corner of Sherbourne St and Dundas St E. In this International Year of Water Cooperation, we will follow the course of lost Crookshank Creek towards the new Pan-Am Games Athletes' Village near the Don River. Along the way we will tour sites of conflict, comity and cooperation, ending at the Distillery District. A joint walk with the Toronto Green Community.
- Tues
Mar 19
10:00 am **SMYTHE PARK – Birds and Plants**
Leader: Miles Hearn
Meet at the park entrance on the east side of Scarlett Rd (south of Eglinton Ave W, north of St. Clair W) for a circular walk. Bring binoculars. Morning only.

Sat **ST JOHN'S NORWAY CEMETERY and CHURCH - Historic Graves, Trees And Birds**
 Mar 23 Leader: Linda McCaffrey
 1:00 pm Meet at the northwest corner of Woodbine Ave and Kingston Rd. We will look at the lovely church and a few important graves including Ashbridge family graves. We will try to spot some Norway pines. This part of Toronto was colonized by Norway pines, not Norwegian people.

Tues **TORONTO ISLANDS – Nature and Birds**
 Mar 26 Leader: Doug Paton
 9:45 am Meet at the ferry docks for the 10 am ferry to Wards Island. Bring money for fare, lunch and binoculars.

Sat **LESLIE STREET SPIT– Birds and Trees**
 Mar 30 Leader: Stephen Kamnitzer
 10:00 am Meet at the park entrance at the bottom of Leslie St. This will be an all-day walk which will allow us to explore nature in the lesser known areas of the spit. Bring binoculars, water and lunch.

Wednesday April 3, 10:30 am

**HAPPY VALLEY FOREST
Salamanders and Birds**

Leaders: Ann and David Love

Come for a walk in the Happy Valley Forest. We will try to find some of the **salamanders** which call these fabulous woods their home. We will be on the lookout especially for **eastern red-backed, spotted, eastern newt and Jefferson**. Of course, early April will also bring the **early bird migrants** to the forest as well. And maybe we'll find a **flying squirrel!** Bring drinking water, lunch optional.

Please contact Margaret McRae by March 28th re car pooling at [redacted] or [redacted]



Red eft,
Oak Ridge Moraine
Photo: Jenny Bu

PRESIDENT'S REPORT

January has been a busy month with lots of meetings, initiatives, and a one-week personal trip to Florida for me.

I recently attended a meeting about the Eglinton LRT and am pleased that they plan to extend it underground east all the way to Don Mills Road. A significant portion will be underground. There was some concern about the elimination of the Leslie Station by people in the condos at Leslie and Eglinton but there is low ridership at that location and they plan to provide good bus service. I also attended a meeting about the Beltline Trail work being planned for this year, was pleased with the plans, and filled out an online survey about it. Participants were generally happy with the project, but good discussion ensued on Safety, Natural Environment, Connectivity and Access and Design Process and Implementation. I can pass on more information to anyone who is interested.

Claudius Fehr and Karin Fawthrop attended the third public consultation on the proposed Beare Landfill Park Project on Jan 24. They were fairly happy with the plans which envisage increasing the forested areas, particularly up to Finch Avenue. The new park will be connected to Rouge Park both for wildlife and hikers. Bobolink, meadowlark and milk snake are all species at risk there. The main problems are access and parking. There are many trains daily on the CN track beside the property, and adding parking is controversial. Check www.toronto.ca/parks/projects/beare_road_park/ for the full report.

I also participated in a webinar in January about the Endangered Species Act exemptions and sent in a letter. This is the link to Ontario Nature's action alert if you want to research it or comment: www.ontarionature.org/act/action_alerts/alert_template.php?n_code=582.

TFN urgently needs a new Auditor to be appointed no later than the May monthly meeting.

If you know of anyone suitable, please contact the office or Margaret McRae (see above)

We have had a bit of cold weather in January, but March brings the beginning of spring and warmer weather. I look forward to our spring walk season.

We are making progress on our 90th anniversary celebration to be held at the Papermill Theatre at Todmorden Mills on Friday, October 4. Mark it on your calendar and join us for the event. Many of our members are preparing the content of the program and will be providing the entertainment.

We are planning a Happy Valley Forest walk on April 3 to look for salamanders and birds. If you wish to attend please contact me re car pooling arrangements by March 28th. See the announcement on page 5 and information about salamanders on pages 10 to 12.

Nancy Dengler wants me to remind you to send us your suggestions for 1) TFN monthly lecture series speakers and 2) projects and programs suitable for consideration for the 2013-14 TFN grants program which further our objectives of connecting people and nature in Toronto.

We will have a promotional display at the Toronto Park Summit on Saturday, March 2 from 1 to 5:30 pm at the Daniels Spectrum (Regent Park Art Centre) and there will be several additional opportunities for promotion in the coming months. Please let us know if you are interested in helping with any of them. We now have colourful new banners for the TFN display.

We will be offering more Outreach programs, leading walks for outside groups in various neighbourhoods in the Toronto area to accommodate various ethnic groups and students and get them to appreciate nature. Please contact us if you are interested in participating in any of these initiatives. We are also looking for a new board member to replace Tom Brown in Outreach since he has moved out of town. We still need someone to audit our books. If anyone is interested in increasing their involvement, let me know your interests and we will find something for you to do.

That's all for now. We hope you will enjoy the active programming we are planning for the year.

Margaret McRae, President

MONTHLY MEETING REPORT

Bats: A Lifetime Affair, Sunday February 3

Brock Fenton, bat expert and Professor, University of Western Ontario

Professor Fenton's lifelong study of bats began in a cave near Renfrew on a field trip when he was an undergraduate student. At that time the cave was home to over 30,000 brown bats. Sadly, due to the calamitous decline in Ontario's bat populations, the numbers in that cave are now thought to be in the hundreds.

Bats are unusual in being small animals with the life span and slow reproductive rate of large animals. Little brown bats that weigh 8 to 10 g can live up to 35 years in the wild. However, about 60% of bats do not survive beyond their first year. The slow reproduction rate and the high first year mortality contribute to bat population vulnerability.

Annual or semi-annual bat litters consist of only one or two babies. An unusual reproductive feature found in bats is delayed pregnancy. Female and male bats have multiple mates in August or September just before hibernation. The females store the sperm until spring when they become pregnant. Among bats that give birth to two babies, about 60% of the twins have different fathers. It is not known how sperm is selected. Canada's brown bat babies are about 25% to 30% of the size of the mother. The mother eats more than her own body weight each night to keep up the milk supply for a baby that drinks its own weight in milk every day.

Many bat species use echolocation (biological sonar) to navigate in the darkness of caves and mines and to find food. As they fly, bats emit high-pitched sounds beyond the range of human hearing and are guided by the echo as well as their keen eyesight. Echolocation has evolved several times and is not unique to bats: it is also used by killer whales and some birds.

The evolution of bats and their sonar abilities is not well understood. The oldest bat fossil, about 50 million years old, shows a creature very like modern bats, though it is not known whether it could echolocate.

Current dangers to bats include urban sprawl, wind turbines and especially white nose syndrome.

Although some bats do well in cities, urban sprawl is a big threat to many species. Our desire to rid buildings of bats does not help. In the UK, however, attitudes towards sharing built structures with bats are different: the penalty for attempting to dislodge bats could be a fine of £10,000!

Wind turbines kill bats by trapping them in an air pocket behind the blades where their lungs form embolisms and explode. We do not yet know what proportion of bats flying near wind turbines are killed. Professor Fenton explained that it would be easy to equip wind turbines with echolocation sensors that could detect nearby bats and shut down the turbine until they pass.

White nose syndrome has caused huge declines in Canadian bat populations in the last two years. The European strain of the fungus *Geomyces destructans* first appeared in three bat caves in New York in 2006, perhaps brought to North America by an airline passenger, and has spread as far west as Wawa. It kills bats that roost in caves and mines by interrupting the winter hibernation, causing them to wake up more often than normal and run out of stored energy before spring

food sources become available. With luck, it may not spread to Newfoundland. It is unknown whether individual bats can recover from an infection. Nothing is known about how this disease can be stopped, and Canada has not provided any research funds to investigate it.

Three bat species are now listed as federally endangered, the little brown bat having been added to the list just a few months ago.

Professor Fenton hoped his audience was as convinced as he is that bats are at least as interesting as birds.

Lavinia Mohr

Photo: Professor Fenton



EXTRACTS FROM OUTINGS LEADERS REPORTS

Nature arts, winter photography, High Park, Jan 5. Leader: Gail Gregory. We went down the eastern side of the park on Spring Road to Deer Pen Road: a lovely route with no cars, that passes ponds and follows a creek. We heard a cardinal and saw and heard crows.



Humber Bay East, Jan 8. Leader: Doug Paton. We got good views of a kestrel and a merlin flying. We spotted about 100 ruddy ducks, a great number of other ducks, and a pair of pied-billed grebes. Land birds included cardinals, mockingbirds, and both kinds of kinglet. Quite a successful walk.

Humber Bay East, Jan 12. Leader: Bob Kortright. Redheads and ruddy ducks turned out in large numbers, with large flocks of the redheads repeatedly flying overhead. However, the most notable sightings were of an opossum in a tree, and a killdeer, a common bird between late March and November, but rare here in the winter. One each of American wigeon, mockingbird, robin, pied-billed grebe and mink were other notable sightings.

Col Samuel Smith Park, Jan 19. Leader: Wendy Rothwell. The red-breasted mergansers were stunningly beautiful, especially when one spread its wings, and we enjoyed an excellent view of an American coot. Several newer birders had the thrill of seeing species for the first time.

Newtonbrook Creek, Jan 26. Leader: Alexander Cappell. A participant showed us the light-coloured strips high up on the otherwise darker trunk of an ash tree that were caused by emerald ash borers.

Morningside Park and site of old Boy Scout Camp, Jan 27. Leaders: Vicki Bondy, Terry Whittam, Bruce Grubbe. Vicki spoke on the history of the Camp of the Crooked Creek (1936 to 1968). Few signs remain but very interesting history of this Scarborough treasure. We saw 5 deer and a coyote.



Left from top: northern mockingbird, American wigeon (Humber Bay East, Jan 12) and American coot (Sam Smith, Jan 19). Right: opossum (Humber Bay East, Jan 12).
Photos: Augusta Takeda

NATURE ARTS EVENT



Gail Gregory welcomes members to the show

Every seat was taken at the Walter Stewart Library Auditorium as more than 50 members gathered on Saturday February 2 to view slide shows and art created by members.

Paintings, drawings, lino prints, photos on canvas, cards and albums were on display on the walls and on tables. Artists included Audrey Campbell, Anna Carr, Penny Fairbairn, Gail Gregory, Heidi Holmes, Joanne Lynes (watercolour *Route Home* shown), Nola McConnan, Kathy Paidock (watercolour of cardinals shown), Jackie Schuknecht and Augusta Takeda. This display can be seen until February 28 (check library for hours).

Several members showed photo slideshows. We saw: Ann Byzko's mink at Humber Bay; Martin Chen's photos from Pelee, Muskoka, the Richmond Hill Christmas Bird Count and Aruba; Ken Sproule's insects and other wildlife of Toronto (see Toronto-wildlife.com and front cover); Margaret McRae's barred owl, opossum, and Florida birds, reptiles and butterflies (queen butterfly shown); Augusta Takeda's wildlife of Tanzania; and Lynn Miller's northern gannets of Bonaventure Island, Gaspé.



and other wildlife of Toronto (see Toronto-wildlife.com and front cover); Margaret McRae's barred owl, opossum, and Florida birds, reptiles and butterflies (queen butterfly shown); Augusta Takeda's wildlife of Tanzania; and Lynn Miller's northern gannets of Bonaventure Island, Gaspé.

Many thanks to Gail Gregory for organizing the event, to Lynn Miller for operating the digital projection and to the artists who supplied goodies and coffee as well as the feast for the eyes.



- Many people asked for Audrey Campbell's **Coconut Cranberry Cookies** recipe (makes about 42)
 - Soak dried cranberries overnight in 1 tsp essence of coconut and 1 tsp vanilla (cut large dried cranberries into smaller pieces)
 - Blend (I used electric egg beater): 1 cup butter, 1 cup granulated sugar and 1/2 tsp salt until fluffy
 - Add 1 large egg and blend in.
 - Mix: 2 cups all-purpose flour, 1/2 tsp baking soda, 1/2 tsp cream of tartar
 - Add to butter mixture. Mix until just combined.
 - Add 1 cup unsweetened coconut and 1 cup soaked dried cranberries. Mix until just combined.
 - Make 1 1/2 inch balls and place on cookie sheet. Slightly flatten with flat of fork.
 - 350 oven for about 12 to 13 minutes.

SALAMANDERS IN AND AROUND TORONTO

In April, there will be an outing to Happy Valley Forest, north of Uxbridge (see page 5). Participants will be shown around by Ann and David Love who donated the land to The Nature Conservancy of Canada and who hope to show us resident salamanders. In anticipation of this, we are re-printing the salamander descriptions from the booklet *Amphibians and Reptiles in Metropolitan Toronto: 1982 Inventory and Guide*, written by Bob Johnson, curator at the Toronto Zoo, and published by TFN. Note that status and species distributions are from 1982 within Toronto. The Ontario Amphibian and Reptile Atlas (see below) has current information on status and distribution in Ontario.

Illustrations by Wally Edwards are kindly provided by the Zoo (©Adopt-a-Pond, Toronto Zoo).

Message from Bob Johnson: “We are currently focusing on mudpuppy distribution so if anyone has sightings in 2013 or historic ones we would like very much to hear from them.” See poster on p12.

For further information on salamanders, see

- Toronto Zoo’s Adopt-a-Pond species guide at www.torontozoo.com/adoptapond/
- Ontario Amphibian and Reptile Atlas, coordinated by Ontario Nature at www.ontarionature.org/protect/species/reptiles_and_amphibians/index.php

NEWTs AND SALAMANDERS

There are 11 species of newts and salamanders, also known as tailed amphibians, in Ontario. Newts are more aquatic than salamanders, but all except the red-backed salamander must have standing water in order to breed and lay eggs.

Newts and salamanders have smooth moist skin. They can be seen in late March and early April when they are migrating to spring ponds and again in September and October when they are active in the cool wet weather of autumn.

JEFFERSON SALAMANDER

[*Status in Toronto*: not found in Toronto, but may be seen in Happy Valley Forest]

Size: 12-18 cm



Description: Bluish-black with bluish-white flecks (not on tail) that are fewer and smaller than on blue-spotted. Hybridizes with blue-spotted making identification difficult.

Natural history: Similar to blue-spotted.

BLUE-SPOTTED SALAMANDER

Status in Toronto in 1982: Rare/extirpated

Size: 10 to 15 cm



Description: Black with blue flecks along sides of body.

Natural History: Secretive; found under logs and stones in moist woodland in spring and fall. Enters underground passages as soil warms and dries over the summer. Feeds on invertebrates. Migrates to breeding ponds in deciduous woods in April. About 200 eggs are laid underwater in masses of 7 to 40 and are attached to submerged twigs or plants. Each egg has a gelatinous covering in addition to the jelly that surrounds the egg mass. The eggs hatch in 30 to 45 days; the aquatic larvae transform and move onto land after 56 to 125 days depending on temperature and food supply.

Remarks: Although not rare outside Metropolitan Toronto, the lack of moist woodlands containing suitable breeding ponds has resulted in few records for Toronto. This species will continue to decline until it is extinct in our area.

SPOTTED SALAMANDER

Status in Toronto in 1982: Rare/extirpated

Size: 15 to 20 cm



Description: Black with row of yellowish spots along each side of body.

Natural History: Secretive; hides during the day under moist logs and rocks; burrows as substrate dries over the summer. Hibernates underground. Dependent on mature, moist woodlands. Breeds in numbers in woodland ponds in early April. Many males may be seen entwined about a single female in the breeding season. Males drop a small “packet” of sperm (a spermatophore) which the female stores to fertilize her eggs. Five to eight cm masses of 25 to 200 eggs are attached to submerged objects. Incubation of eggs lasts 31 to 54 days depending on temperature. Aquatic larvae transform into terrestrial replicas of adults in 61 to 110 days.

Remarks: A lowering of water tables, habitat destruction and reduced water quality in breeding ponds have affected this species. There is some indication that acid rain and acidification of breeding ponds may be detrimental to the development of larval salamanders. Water pollution was responsible for the decline of the last viable population of this species when an asbestos manufacturer contaminated the marshes, ponds, and surrounding woodlands near the mouth of the Highland Creek. No viable populations exist in Toronto although a few individuals may still be found. In fact, the discovery of the individuals in this survey was quite surprising.

RED-SPOTTED NEWT

Status in Toronto in 1982: Uncommon/rare

Size: 5 to 10 cm



Description: Yellow-olive or brown body with several red spots bordered with black and many small black spots. Belly is yellow with black spots. Land or eft stage is orange/red with red spots [see photo p 5].

Natural History: Prefers clear, spring-fed ponds, small lakes or still streams with abundant submerged vegetation. Ponds are usually free of fish which may be predators. Often seen walking on bottom or quickly rising to surface to gulp air (although oxygen is also taken in through the skin of submerged newts). Can be seen moving about under ice. The terrestrial red eft stage is noxious to predators and as a result may be seen fearlessly moving about during daylight, particularly after rains. Hibernates either under water or underground. Feeds on aquatic invertebrates. Male courts female, grasping her about neck with hind legs. 200 to 375 eggs laid singly and attached to submerged vegetation. Larvae emerge from the water as red efts after three to four months and spend up to three years on land. In some areas the eft stage may be omitted and the larva develops directly into the aquatic adult.

Remarks: There are only 3 self-sustaining populations in Metro, and 2 of these are threatened – by landfill near York Mills Road and by deteriorating water quality and lowered water tables in woodlands near the Rouge River. Obvious signs that the newts had been collected for pets were observed at several of the ponds.

RED-BACKED SALAMANDER

Status in Toronto in 1982: Uncommon/rare

Size: 5 to 10 cm



Description: Small grey to black salamander with a reddish strip down back and on tail. Less common colour phase has red replaced by a lead-coloured strip.

Natural History: A woodland species that shelters during the day under stones and rotting logs. It has no lungs and all respiration occurs through the skin. The summer is spent foraging for small invertebrates; hibernates under-ground or within stumps. Unlike most amphibians, this species breeds and lays eggs on land. Breeding occurs in the fall and in the spring. Three to 13 eggs are laid. These are supported by a stalk and are attached to the roof of a small chamber in the moist

Red-backed salamander continued.

log. There is no free-swimming aquatic larval stage and hatchlings are small replicas of the adults.

Remarks: The red-backed salamander is restricted to the few scattered, mature woodlands associated with the slopes of the Don and Humber River valleys. Being a lungless species and a terrestrial egg-layer, the red-backed salamander is dependent on moist woodlands – neither the skin nor the eggs have any resistance to desiccation. Such habitat does exist in Metro Toronto, but for some unknown reason the species is not found in many areas of what would appear to be ideal habitat. The drier the woodlands become, the more the salamander must retreat within its log. Years of drought may lead to local extinctions, particularly if the woodland is already stressed by lowered water tables. I would suspect that an increase in the number of edge species such as starlings and raccoons in isolated wood-lots, the clearing of woodlots, and disturbance of the few moist stumps within woodlots have been contributing factors in the decline of this sensitive species.

MUDPUPPY

Status in Toronto in 1982:

Rare/extirpated

Size: 20 to 35 cm

Description: Large, aquatic, tailed amphibian with feathery, external gills. Reddish-brown back with black spots.



Natural History: Found in lake bays and marshes and quiet waters of rivers. Preys on fish, crayfish and invertebrates. Never leaves the water, often caught by fishermen. Sometimes active under winter ice. Mates in the fall. In spring 18 to 125 eggs are attached singly to underside of submerged objects. Female guards eggs which, depending on water temperature, hatch in 38 to 63 days.

Remarks: This aquatic, gilled species should be found in our riverine and lakefront marshes. A difficult species to inventory, it is reported to be in the Humber marshes. The Mudpuppy, at one time, was common in the lagoons of the Toronto Islands. Populations have most likely decreased as a result of deteriorating water quality and increased sediment load in rivers.

THE GREAT LAKES' VERY OWN WATER MONSTER AKA "THE SLIME DOG"!!!

Have you seen the elusive mudpuppy?
If you have, please let us know!
Send us an email including the date, time and location.
Able to snap a picture? Send it our way too!
But please remember that mudpuppy salamanders are happiest when left alone.

A Zoo and Aquarium Partnership for the Great Lakes conservation initiative.

Adopt-A-Pond Programme
Toronto Zoo
361A Old Finch Ave.
Toronto, ON M1B 5K7 Canada
E-mail: aap@TorontoZoo.ca Telephone: 416-392-5999 Fax: 416-392-4979

Did you know... Mudpuppies appear to feed eagerly over the winter so they are often caught by ice fishermen!!! Mudpuppies are harmless salamanders so if you catch one, please be gentle in releasing it back to your lake or pond.

TORONTO WILDFLOWERS: BLUE COHOSHES

Toronto has two species known as blue cohosh, so-named because of their unusual leaf, stem and flower colour (see illustrations and further discussion). These species are *Caulophyllum thalictroides* and *C. giganteum*. Like may-apple and twinleaf they are members of the Berberidaceae (barberry) family. This family has about 650 to 700 species, of which over 600 are in the genus *Berberis*, barberry. (Toronto has two widely introduced *Berberis* species, woody shrubs that have yellow flowers and bright red berries.) There are fewer than 10 *Caulophyllum* species known. Our two local species are the only ones occurring in North America.

C. thalictroides is more widespread, occurring in both southeast Ontario and the region north of Lake Superior. Its Canadian range is from Manitoba to Nova Scotia. In the US it occurs from the east coast as far west as North Dakota to Oklahoma, with a southern boundary from Arkansas to Georgia.

C. giganteum occurs in southeast Ontario and Quebec but is not reported in Nova Scotia or New Brunswick. In the US, it is present from Ohio to the east coast, but not south of Virginia and West Virginia.



In Toronto plants recognizable as *C. thalictroides* are widespread and common in the forest understorey, blooming in most years in early May. My image of what I think is *C. giganteum* is from Sunnybrook Park and was taken in late April 1999. *The ROM Field Guide to Wildflowers of Ontario* (2004) and *Flora of North America* (FNA) online (www.efloras.org) noted that *C. giganteum* blooms earlier than *C. thalictroides*, which supports my interpretation.

Caulophyllum is derived from the Greek *kaulos* (stem) and *phylon* (leaf). *Thalictroides* refers to a resemblance of the leaves to those of meadow rues (genus *Thalictrum*). When plants of this species first rise through the leaf litter their leaves, stems, and flowers have a distinctive purplish colour, due to pigments known as anthocyanins. As plants mature chlorophyll gradually changes the colour of all parts of the plant to yellowish green. *C. thalictroides* can grow to 90 cm tall. Its flowers are about 1 to 1.5 cm across. The petals are reduced to very small rounded glands at the base of the petal-like sepals (clearer on my image of *C. giganteum*).

C. giganteum has slightly larger flowers, up to 2 cm, one distinguishing feature. The specific name *giganteum* (gigantic!) is a case of poetic or scientific license when applied to this species if based on the flowers. I do not know if its plants tend to be taller than those of *C. thalictroides*. A more persistent purplish colour than that of *C. thalictroides* is another distinguishing feature.

If inclined to be a plant detective, you could follow the development of likely candidates for *C. giganteum* from late April on, measure them, determine how common this species actually is, and enlighten all of us. A good time to visit the forest (and a good rationale?).

Article and photos by Peter Money



Left: *Caulophyllum thalictroides*
Right: *Caulophyllum giganteum*

KEEPING IN TOUCH

Greenhouse found

We thoroughly enjoyed Ed Freeman's tour of fauna and flora in downtown Toronto's architecture, on Jan 16. We found a greenhouse and *The Mountains* sculpture that we did not know existed. Attached are a few pics taken on the tour. Thanks, Ed!

Jim and Jane Goad



Wild cats

I often re-read old copies of TFN bulletins. In a 1994 issue, #446, I was puzzled by an article which told of a taxidermist who had a stuffed panther which had been shot in Scarborough. The article was taken from *The Biological Review of Ontario*, 1894, vol 1, no 2, "The Panther in Canada" by Rev John Doel.

A panther in Southern Ontario? I decided to do some research. Our library had a book *Forest Cats of North America* by Jerry Koalenko (1997). It had gorgeous photographs. I learned that names for wild cats are puma, panther, lynx, and cougar. The range in Canada of the cougar is British Columbia and Alberta. The lynx' range is the boreal forest and part of Ontario, but not extending as far south as Lake Ontario. The range of the bobcat takes in Southern Ontario.

The handsome panther lives in Florida and the lower south eastern states. Owing to habitat loss it has a meager population, divided between Everglades National Park and Big Cypress National Reserve. Does anyone have any comments re these wild cats? Have any of you ever seen one?

Marion Martindale

Ed: Co-incidentally, the editor of *The Wood Duck*, journal of the Hamilton Naturalists' Club, wrote in the Nov 2012 issue that he had come across the 1894 article in *The Biological Review*: "It states that up to the latter part of the 18th century the cougar was a native resident ... in Ontario" he writes. Sightings of cougars or evidence of cougars are still occasionally reported in southern Ontario but at least some are escapees. You might be interested in visiting the website of the Ontario Puma Foundation.

Re: Take Action, newsletter 593, Feb 2013, p. 12

This action should include the **trustees of both school boards**, in addition to MPPs, MPs, and councillors, as school board land is being sold for development throughout the city.

Two blocks of school board land have been sold and destroyed in the last few years in my ward, Ward 41. Both should have been parkland. One block was 16 acres and included a 1 acre micro-forest located adjacent to an existing park that has very little parkland. The other was an area of about 10 acres, in a densely populated area that needs more local parkland.

The MP, MPP, councillor, and TDSB trustee were all aware of the existing circumstances, but sided with the developers. Needless to say, I never voted for any of these four representatives in any election in the past, and I certainly will not support them, or their parties, in any fashion, in the future.

Al Roffey

Carolina wrens

This winter we have two house guests. Fortunately they are very independent and I don't have to cook or clean for them. They actually sleep on our small covered porch. Cold, you say? Well, there are two to keep each other warm. They are Carolina wrens, spending the nights in a small natural fibre birdhouse that I happened to hang on a nail to get it out of the way. We try to go in and out quietly when they're there and don't use the porch light much. But they often bed down before it gets dark, and that's when they get nervous about our comings and goings. Then they fly out and wait in a nearby shrub, pumping up and down on their little legs for a minute, before heading back to bed. We haven't heard them singing since December, but I'm sure it won't be long before these little creatures' loud song will be ringing out.

Jenny Bull

REPORTS FROM GRANTS RECIPIENTS

Living Winter at the Toronto Botanical Garden

By Karen Mann, Children's Education Supervisor, TBG

Thanks to the generous support of our funders, Toronto Botanical Garden is able to provide the Living Winter program to students living in Toronto's most under-resourced neighbourhoods. Unique in Toronto, Living Winter is created to nurture a sense of place in new Canadian youth. Living Winter programming encourages a deeper connection to nature and a greater sense of environmental responsibility in its participants.

Activities in the Living Winter program are designed to support the Grade Four science and technology curriculum by exploring natural habitats and communities. The morning is filled with hands-on learning about animal adaptations, inspecting fur and bone specimens, and dissecting owl pellets. On afternoon winter hikes, students see animal shelters and visit Wilket Creek to learn about the vital role of open water sources. They learn to recognize the importance of habitat conservation and are encouraged to explore positive actions they can take to help the environment. The most magical moments of the day come when we are graced by urban wildlife. Chickadees, nuthatches, cardinals, blue jays and red squirrels are common sightings, and on one lucky occasion, students even spotted a pileated woodpecker!

Many teachers have written to express their gratitude to our funders for this program. They consistently mention that a trip like this would not be possible if it were not fully subsidized. Teacher Maureen McCrae notes, "All my students live in the high density apartment buildings of St. Jamestown in downtown Toronto. The students rarely have exposure to the natural world. This program widens their experience of Canada."

Toronto Botanical Garden would like to extend our sincere gratitude to the Toronto Field Naturalists for their generous gift to the Living Winter program. With your help, these experiences are the first step to awakening and nurturing life-long environmental awareness. Thank you.



REPORTS continued next page

□

Toronto Field Naturalists Grants Program

TFN provides funding for projects and programs that further our objectives of connecting people and nature in Toronto.

Please send your suggestions of nature-related projects and programs suitable for consideration for the 2013-14 TFN grants program to the TFN office (contact info page 2).

High Park Nature Centre: Engaging the Next Generation of Field Naturalists

By Jon Hayes, Family Programs Coordinator
at High Park Nature Centre

The High Park Nature Centre is a not-for-profit organization dedicated to promoting respect, appreciation and the stewardship of nature in Toronto's largest park and crowning jewel, High Park. The next generation of field naturalists is a large, caring and motivated bunch of nature lovers. You can take our word for it because we work with them on a weekly basis at the High Park Nature Centre. These are the kids who come out to our "Naturalist Clubs for Kids" year after year. Weekly outings in the park motivate kids to get out into nature with others who share their interest. Friendships form and understanding deepens. Together, we find shy red-backed salamanders, curious black-capped chickadees, gliding hawks, funky lichens, owl pellets and humbling tall grasses right here in downtown Toronto. Your donation helps support these clubs and a bunch of amazing young people!

This fall our Naturalist Club offerings expanded to include the very youngest: **Nature Babies!** Every



Friday morning, parents bring their 0-2 year olds for nature-themed songs & stories before bundling up for an exploratory hike on the park's nature trails. Picture a dozen parents throwing fallen oak leaves in the air and the babies giggling as they fall back down. Research shows that these positive early experiences outdoors will contribute to a deeper appreciation of nature in later years and it's obvious to us that connections to nature are forming!

For the kids aged 8 - 12 we offer a joyful end to the school day each Wednesday: **Afterschool Adventures**. Just before the sun sets, we romp through the woodlands to find stinkbugs beneath the snow, build snow-blinds to watch the duck congregation on the unfrozen stretch of pond or bring our cameras along to photograph the fascinating shadows on the snow. Saturday mornings are perfect for more intense nature-study as our **Saturday Morning Club** and **Ramblers Hiking Club** both search for owl pellets, go orienteering and hike all the way to Grenadier Pond.

Our young naturalists are involved in some serious stewardship work too. This fall alone, the kids in our naturalist clubs have planted hundreds of native plants, removed invasive garlic mustard (and cooked it into a delicious soup!) and lopped huge piles of European buckthorn. The 12-14 year olds who participate in our **Young Naturalist Mentorship Club** have taken on the responsibility of leading parts of the **Family Nature Walks** that this fall saw upwards of 70 people attending each.

You probably wish you could come along on these outings. **Family Nature Walks** are a way for us to reach out to people of all ages who may or may not already know about the significant natural spaces in High Park. Thanks to the TFN's support, families can attend these hikes on a donate-what-you-can basis. We offer 6 different walks per season and each one explores a different theme of the park's natural history. This fall, we offered walks on soil, trees and raptor migration among others. Winter hikes will feature winter birds, winter adaptations of insects and nature photography. These widely attended walks are a fun way to get a variety of families outside to appreciate nature together.

For more information, please visit www.highparknaturecentre.com, contact naturecentre@highpark.org or call us at 416-392-1748.

Hope to see you in High Park!

FROM THE ARCHIVES

Strange Sightings

Extracted from TFN Newsletter No. 365, September 1984

About 6 pm on a summer's day suspiciously close to the freezing point, I arrived at Broadbent in the Parry Sound district. In the three hours during which I rambled, for that first exciting look around, great billowing gusts of warm air rushed in from wherever, producing a fog that finally rose to thigh level. The sun, which had been a deep and frosty pink, took on an increasingly murky hue until it became an enormous purple globe smothering in a welter of black thunder clouds and shedding an angry red glow. Something of a cosmic variation of satanic mills!

Returning in this dark-room ambience, my eyes glued groundwards for fear of missing both my path and any potholes thereon, I stopped dead. "That twig," I thought, "looks just like a lizard!" (To be exact, a salamander). A perfect ruby brooch which sat unmoving in the palm of my hand. A red eft turned deepest crimson by the science fiction twilight. I carried it from the middle to the side of the roadway and had to tickle it to make it leave me. It seemed stunned by the atmospheric change and moved at snail's pace.

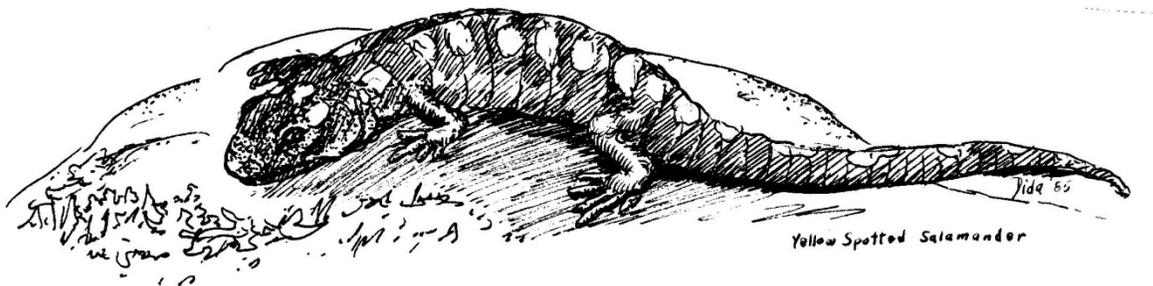
Back at the resort I had to fumble my way along the balustraded boardwalk, everything by then being a misted black with no horizon and no stars. From across space came loud moanings. I pondered the visitation of other-worldly creatures in this John Varley universe, though I would even have settled for a homely moose.

Next morning, earthbound in golden air once more, my aliens stood revealed as a herd of cows on an outcrop across a small lake

I often recall the eerie experience of our world turned dark red and menacingly unfamiliar, and I shall certainly never forget that perfect little brooch. Talk about a price beyond rubies!

Eva Davis

P.S. Now that exquisite little creature would have made a photograph! Though I haven't the slightest idea how anyone would go about capturing it on film. Doubtless, with the necessary know-how and right paraphernalia to deal with all that Celtic twilight, it could have been done.



Yellow-spotted salamander drawn by Diana Banville

Yellow-spotted Salamander not extirpated in Toronto

Extracted from TFN Newsletter No. 368, December 1984

While on an outing for the Junior Club this Fall, a group of boys was excited to find not one, but four, yellow-spotted salamanders under a log in the Humber Valley. However, only one was picked up and brought to the group's attention. It was then released where it had been found.

Report of this find delighted Bob Johnson, Curator of Reptiles and Amphibians at the Metro Zoo, as only a couple of these rare salamanders have been "spotted" in Toronto. They are a northern woodlands species, and to be found in the heart of the city as a viable population gives high hopes for its future and for the future of rare snakes that might also be found here.

Beth Jefferson

FOR READING

The Crossley ID Guide: Eastern Birds by Richard Crossley.
Flexibound, 544 pages. Princeton University Press. \$34.78 or less.

This book, covering the birds of eastern U.S. and Canada, was heralded as a completely new design innovation when it was published in 2011. Stunningly illustrated and “assembled” by well-known New Jersey birder/photographer Richard Crossley from more than 10,000 of his own images, it provides a new approach to bird identification.

The guide features more than 640 lifelike scenes. Each scene is a composite, showing the species in its typical habitat close-up, in the distance, from different angles, in various plumages and behaviors, on the ground, in trees, and on the wing. Below the scene is a distribution map with brief explanatory text.

Certainly not a pocket book and weighing around 2 lbs, it is not intended as a field guide, but rather as a home reference/study guide. You can see pages from the guide (and a few corrections!) on the author’s web site at www.crossleybirds.com, or you can hear him talk about his book - and see additional pages - at www.youtube.com/watch?v=DKQ15-Xy0sw.

The guide has received a mixed reaction: some readers lauding it highly, while others are critical of the illustrations, the limited text and deviations from the traditional guidebook order. Take a look, and judge for yourself. I think this guide would probably be a wonderful gift, and a useful armchair read, for a beginner - the images are quite compelling, drawing us in to study them carefully. Indeed, the author invites us to study the images closely to “find Waldo” and to pursue answers to our own questions.

For computer enthusiasts, and those wanting more information, there is always the Cornell Lab of Ornithology, All About Birds, at www.allaboutbirds.org. This site has the advantage of sound and video in addition to in-depth information covering 584 of the more than 700 North American species, as well as links to Birds of North America on-line (a paid subscription site).

Mary Lieberman

WEATHER (THIS TIME LAST YEAR)

March 2012

March was the warmest month with respect to the long-term average ever recorded for Toronto, and indeed for most of eastern North America. The monthly mean of 6.7° at Pearson was 6.4° above the 30-year average. Downtown had a mean of 7.2°. These values are close to the normal for April.

The reason for this was a massive summer-type heat dome that extended from the Gulf of Mexico north to James Bay. There was a simple but strong southerly low-level jet stream transporting air from the Gulf of Mexico very rapidly (it took only 1-2 days for the warm air to travel the distance). This persisted in some form most of the month, but was most pronounced from the 11th-25th. Pearson Airport recorded five days with a maximum over 20°, and three additional days that were within a degree of that mark. The heat in Toronto peaked on the 22nd, with a maximum of 26.0° (downtown was a couple of degrees cooler due to early-summer style lake breezes). Most of southern and central Ontario, southern Quebec, and even the Maritimes were in the 26°-28° range once away from

the cooling influence of large water bodies. Ravenscliffe, Ontario (east of Parry Sound) hit 29.0°. Even 30° readings were found in, incredibly, Nova Scotia (Lake Major 30.0°).

In the boreal zone, Winnipeg (west of the core of the heat) hit 23.7° on the 19th, while Timmins reached 27.9° on the 21st and Moosonee 24.5° on the 20th.

Wood frogs and spring peepers were in full chorus in the Toronto area by March 16th, and peepers were out in northern Ontario by March 23rd. Vegetation was also perhaps the earliest on record, but only about a day or so ahead of 1998 at month’s end. For example, hepatica and spring beauty were in bloom.

Summer-like temperatures in themselves are not unprecedented for March locally; mid-twenties have been reported in the Toronto area in 1945, 1946, 1986, and 1998 (note the World War II vintage of the first two of these spells). The two back-to-back warm Marches in

WEATHER continued on next page

COMING EVENTS

If you plan to attend any of these events, we recommend that you contact the organizing group beforehand to confirm time and place.

Jim Baillie Memorial Bird Walks – Toronto Ornithological Club

Aimed at the intermediate birder, but beginners also welcome. Free to the public; no advance registration required. Sat Mar 2, 9 am all day. West Toronto Lakeshore to Burlington. Leader: Garth Riley. Waterfowl, geese, swans. Information: www.torontobirding.ca

Science on Sundays

Mar 3, 3 pm. Catch Me If You Can: Hunting the Elusive Neutrino. Speaker: Sampa Bhadra, Ph.D., Department of Physics and Astronomy, York University. Macleod Auditorium, Medical Sciences Bldg, University of Toronto, 1 King's College Circle. Information: www.royalcanadianinstitute.org.

High Park Walking Tours

1st and 3rd Sundays of each month, 10:30 am to noon. Meet at the benches across the road south of Grenadier Restaurant. Information: walkingtours@highpark.org or www.highpark.org

- Mar 3. Discover the Park through Archival Photos. Leader: Terry Fahey
- Mar 17. Heroes of the Park. Leader: Julia Bennett

The Community History Project

Wed Mar 27, 7 pm. Heritage Tree – Preserving our Natural Roots. Speakers: Edith George and Peter Dmytrasz. The Ontario Urban Forest Council toolkit *Securing the Future of Heritage Trees: A Protection Toolkit for Communities* will be presented. Tollkeeper's Cottage Museum, northwest corner of Bathurst St and Davenport Rd. Entrance fee \$10.

Rouge Park Weekly Guided Nature Walks

Explore Rouge Park's trails with a Hike Ontario certified volunteer leader. Information: visit www.rougepark.com/hike, e-mail hike@rougepark.com or phone 905-713-3184 Monday thru Thursday.

The Market Gallery

To Mar 2, 2013. The Water Czar: R.C. Harris Works for Toronto, 1912-45. This exhibition will chronicle his unprecedented and unmatched 33-year career as head of the City's works department through archival photos, maps and plans, and by artefacts rarely or never seen before. South St Lawrence Market, 2nd floor, 95 Front St E. Note: gallery closed Sun, Mon, and holidays. Information: www.toronto.ca/culture/the_market_gallery/index.htm or 416-392-7604.

Harbourfront Centre

Through June 2013. Uncharted Waters: Toronto's Enigmatic Harbour. An outdoor photography exhibition that explores the spectacular environmental and cultural resource that is the harbour of Toronto. Information: harbourfrontcentre.com/visualarts

WEATHER *continued*

the 1940s were about a degree cooler than 2012, a difference that may be within the margin of error caused by the urban heat island. The Toronto downtown March record of 26.7° set on March 28, 1946 still stands. But *no* March warm spell has been so long or so extensive, reaching subarctic tide water at James Bay and the almost-as-chilly North Atlantic.

The warmth was accompanied by extreme dryness, as the subtropical moisture feeding northward stayed confined to a north-south band well to the west (severe thunderstorms and tornadoes occurred in the eastern Plains states with one as far east as Michigan).

The final week of March brought more seasonable weather, just slightly warmer than normal.

Total precipitation was in the 15-20 mm range in Toronto, with Pearson having 18.0 mm. This is the third-lowest on record, after 1962 (11.9 mm) and 1981 (17.8 mm). After the almost-absent winter with minimal snow, southern Ontario was heading into incipient drought. Snowfall at a paltry 2.2 cm was actually *not* a record, in fact, snow-free Marches are something we're almost getting used to: 2006, 2009, and 2010 all had less than 2 cm. Sunshine at 182.8 hours was also well-above normal but not in record territory.

Gavin Miller

Toronto Field Naturalists
1519 - 2 Carlton St.,
Toronto, Ontario M5B 1J3

Publications Mail
Registration No. 40049590



Common redpoll waiting its turn at the bird feeder, December 2012. Photo Jenny Bull