

# TORONTO FIELD NATURALIST

Number 559

November 2008



Blue Jay photographed by Norah Jancik at Lynde Shores Conservation Area

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### IT'S YOUR NEWSLETTER!

We welcome contributions of original writing, up to 500 words, of observations on nature in and around Toronto, reviews, poems, sketches, paintings, and photographs of TFN outings (digital or print, include date and place). Include your name, address and phone number so submissions can be acknowledged. Send by mail or email. **Deadline for submissions for December issue:** Nov. 7.

### NEWSLETTER COMMITTEE

Jenny Bull (co-editor), Eva Davis, Karin Fawthrop, Nancy Fredenburg, Elisabeth Gladstone, Mary Lieberman, Ruth Munson, Marilyn Murphy, Toshi Oikawa, Wendy Rothwell (co-editor).

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### MEMBERSHIP FEES

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

No GST. 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.*

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Sumach, Bayview Extension  
drawn by Mary Anne Miller

## TFN MEETING

**Sunday, November 2, 2008, at 2:30 pm**

### **The Toronto Field Naturalists: An Illustrated History**

*Helen Juhola and Pleasance Crawford, long-time TFN members,  
will share memories from TFN's slide collection  
in celebration of our 85th anniversary.*

**VISITORS WELCOME!**

**SOCIAL: 2:00 – 2:30 pm**

**Room 001, Emmanuel College, University of Toronto, 75 Queen's Park Cres. East**

Emmanuel College is just south of the Museum subway station exit (east side of Queen's Park). Enter at south end of building, down a few steps on outside stairwell. **Wheelchair entrance:** Second door south on Queen's Park (no automatic opener). Elevator inside to the right. Room 001 is one floor below street level.

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

### **Upcoming TFN Monthly Meeting**

**December 7**

*Greening the Zoo... from invasive plant control to geothermal monkey exhibits*

David Ireland, Curator, Conservation Programs, Toronto Zoo

### **A Perfect Holiday Gift**

Consider sharing the benefits of TFN membership with your friends!

We are confident that, once they discover the pleasures of our outings, lectures, newsletters and the companionship of other nature-lovers, they will want to renew.

So we are offering a Holiday Special – half the normal membership fee when you, a TFN member, give a gift membership to someone who was not previously a member. This covers newsletters for December thru May, which include outings lists to the end of August.

### **Toronto Tree Portraits 2009 Calendar**

Internationally renowned astronaut, scientist, physician and photographer, Dr. Roberta Bondar has combined her artistry and scientific insight in creating the Toronto Tree Portraits 2009 calendar. This edition celebrates the importance and uniqueness of Toronto's tree heritage as a canopy of profound beauty photographed in full colour.

To order for mail delivery, call Toronto Parks and Tree Foundation, 416-397-5178, or go to [www.torontoparksandtrees.org](http://www.torontoparksandtrees.org) to download an order form. Price: \$15 + PST & GST (+ \$3.00 shipping for orders of 2 or fewer). Proceeds will go directly towards preserving and enhancing Toronto's trees in parks, natural areas and other public spaces.

## 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 by calling 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.

### Saturday **TORONTO ZOO - Nature Arts**

Nov. 1 Leader: Susan Weiss

10:30 a.m. Meet at the Zoo's main gate. Bring whatever you need for sketching, painting, photography or writing. Bring any work you wish to share with the group after lunch. Bring money for zoo admission.

### Sunday **LECTURE – Toronto Field Naturalists – An Illustrated History**

Nov. 2 Speakers: Helen Juhola and Pleasance Crawford, long-time TFN members

2:30 p.m. Emmanuel College, 75 Queen's Park Cres. E. See page 3.

### Thursday **HUMBER BAY PARK EAST – Birds**

Nov. 6 Leader: Ann Gray

10:30 a.m. Meet at the southwest corner of Lake Shore Blvd. W. and Park Lawn Rd. Bring binoculars. Morning only.

### Saturday **ROUGE PARK – Nature Walk**

Nov. 8 Leader: Orval White

2:00 p.m. Meet at Glen Rouge Campground parking lot, 7450 Kingston Rd., east of Sheppard Ave. E. Bring binoculars. A 2–3 hour loop walk.

### Sunday **CROTHERS WOODS AND SUN VALLEY – Nature Walk**

Nov. 9 Leader: Margaret McRae

1:30 p.m. Meet at the northeast corner of Beechwood Dr. and O'Connor Dr., west of Pape Ave. Bring binoculars and wear shoes with good traction.

### Wednesday **COLONEL DANFORTH PARK – Nature Walk**

Nov. 12 Leader: Karin Fawthrop

10:00 a.m. Meet at Kingston Rd. and Colonel Danforth Trail. Morning only. Lunch optional.



peaked woolly cap with ear muffs



waterproof boots  
thick socks



What to Wear on Winter Walks, artwork by Eva Davis

- Saturday  
Nov. 15  
1:00 p.m.      **COLONEL SAMUEL SMITH PARK – Nature Walk**  
Leader: Kerry Adams  
Meet at the southwest corner of Kipling Ave. and Lake Shore Blvd. W. Bring binoculars .
- Sunday  
Nov. 16  
2:00 p.m.      **CELEBRATE WORLD FISHERIES DAY – Lost Rivers Walk**  
Leaders: Christine Tu (TRCA) and Ed Freeman  
Meet at Todmorden Mills Heritage Museum & Arts Centre on Pottery Rd. Visit weirs on the Don River and discuss the impact of the environment on fisheries. A joint walk with the Toronto Green Community.
- Tuesday  
Nov. 18  
9:45 a.m.      **TORONTO ISLANDS – Birds**  
Leader: Doug Paton  
Meet at ferry docks at foot of Bay St. in time for 10:00 a.m. ferry to Ward's Island. Bring lunch, binoculars, money for ferry. Dress warmly.
- Saturday  
Nov. 22  
10:00 a.m.      **LESLIE STREET SPIT– Birds**  
Leader: Bob Kortright  
Meet at park entrance at corner of Leslie St. and Unwin Ave. Bring lunch and binoculars. Dress warmly.
- Wednesday  
Nov. 26  
1:00 p.m.      **MOORE PARK AND NORTH ROSEDALE – Nature Walk**  
Leader: Ed Freeman  
Meet at St. Clair Ave. E. and Avoca Ave. This will be a long walk with slopes, and opportunities to leave via TTC. It will end near Yonge St. and St. Clair Ave. E.
- Saturday  
Nov. 29  
10:00 a.m.      **MOUNT PLEASANT CEMETERY – Trees**  
Leader: David A. White  
Meet at Davisville subway station. Bring lunch

## KEEPING IN TOUCH

We wish to thank the TFN for the wonderful display of Diana's art at Todmorden Mills Heritage Museum. The family was pleased to be able to share her art with her TFN friends and members. We especially want to thank Pinky, Gail and the Exhibit Committee for their time and talent in selecting and setting it up. We are sure Dida would have been happy to have her art so perfectly displayed.

Grace Somers and Diana Humphrys

I thoroughly enjoyed my time at the Jim Baillie Reserve. I thought the pace and information provided, along with the things of interest that drew our attention, were just great. So, thanks to the TFN and to George Bryant. I would also like to thank Sid Daniels for what, for me, were the highlights, when at first he drew our attention to the blisters on a balsam fir and proceeded to carefully press them to release the sap. Later he did the same to a puffball, but this time the spores were ejected vertically like a jet. I have seen this

before on TV, but never in real life. For me, it is little things like this which draw one's interest to Nature and all its beauty.

Bob Bose



Puffball at Jim Baillie Reserve  
photographed by Anne Byzko.

## PRESIDENT'S REPORT

My first few weeks as President have been quite eventful. Our Nature Arts exhibit came to a successful conclusion on September 14th, and I am happy to announce that longtime member and outings leader, Doug Paton, was the highest bidder for *Canada Geese with Young*, the print which Robert Bateman kindly donated to the TFN for this anniversary celebration.

On September 27th, ten of us were led by George Bryant on an enjoyable and informative outing at the Jim Baillie Nature Reserve (see his article on page 15). Thank you, George, for sharing your knowledge. We are grateful to Barry Tosher and George for much-needed boardwalk repairs and clearing of paths, so that we were able to make our way through to the picnic shelter.

We heard a fascinating lecture by Spencer Barrett at the October Monthly Meeting, and you can read Barry Mitchell's account on page 7. Special thanks to Barry for the excellent job he does in capturing the essence of our lectures for the newsletter. A big 'thank you' to Pinky Franklin, George Bryant and Bob Kortright for their hard work in organizing the book sale, which raised \$223.00 in support of TFN programs.

We are continuing the celebration of TFN's 85th anniversary with a special Monthly Meeting on November 2nd. Helen Juhola and Pleasance Crawford will be sharing stories of our history, using slides from our extensive collection. For long-time members, this will evoke many happy memories, and for those of us who have joined more recently, it will be a way to learn about the long and rich history of our club. I encourage all of you to come and share this experience.



I was recently blessed with one of those special moments when many wonders of nature come together, and I couldn't resist sharing it with you. It happened during a walk in High Park on September 10th, a glorious sunny morning. Along the south side of the parking lot near the zoo was a kaleidoscope of colour – blazing yellow Canada goldenrod, woodland sunflower and cup plant interspersed with purple New England asters and bull thistles, orange spotted jewelweed and pink Himalayan balsam. A common elderberry was laden with rich dark drupe clusters, and the sun illuminated crimson maple leaves.

As I stood admiring this array, I was thrilled to see a Ruby-throated Hummingbird hovering among the flowers. Bees buzzed around the goldenrod, and dragonflies flitted about. Carol Sellers tells me the pretty red one was probably a red saddlebags. As I trained my binoculars on a House Sparrow, a male Northern Cardinal obligingly flew in and perched right in my field of vision. He was looking rather scruffy, due to moulting, but this did not deter him from proudly posing while I took his photo. Then I was delighted to watch a male American Goldfinch eagerly pulling the plumes out of a bull thistle, biting off the seeds and deftly spitting out the sheaths. I was unable to spot the Grey Catbird mewing in the shrubbery but, as I was about to leave, a 'dee dee dee' drew my attention to a Black-capped Chickadee resolutely pecking at the seed-head of a cup plant.

I'm sure many of you have special nature moments. Please write and tell us about them so they can be published in 'Keeping in Touch.'

Wendy Rothwell

## NEWS FROM THE BOARD

We are happy to announce that, in response to popular demand, the practice of serving tea and coffee at Monthly Meetings will be resumed in November. We feel this encourages socializing and helps us to get to know one another. The University charges almost \$2 per cup, so we will be putting out a donation box, and ask that you help to defray this significant expense for the TFN. For environmental reasons, we encourage you to bring your own cup, as only disposable cups will be provided.

## MONTHLY MEETING REPORT

### Contemporary Evolution in Invasive Plants, Sunday, October 5, Speaker: Spencer Barrett

The impetus for Professor Barrett's research at the University of Toronto is not *control* of invasive species, but using them as a means of learning about plant evolution. Rapid reproduction, the trait that makes invasive species such a nuisance to us, makes them invaluable to evolutionary biologists because it allows them to study changes that evolve over many generations in a relatively short time

Professor Barrett outlined the characteristics that make invasive plant species, such as dog-strangling vine, so successful. They develop quickly to a stage where they can reproduce, and they have high reproductive output, well-developed dispersal mechanisms, broad ecological tolerance and high "phenotypic plasticity", i.e. they respond effectively to changes in their environment

The Galapagos Islands show how the invasion of alien species can threaten native species. There are 500 native species, of which 450 are found only on the Islands, but there are already 749 "alien" species, and the number is growing. Invasive species are a greater threat than tourism to the unique Galapagos biota.

One fascinating example of plant evolution cited was the development of rice plant mimicry. During the 12 to 14 thousand years that rice has been raised by humans, a few plants have gradually changed their appearance to look almost like the rice plant. For most of that period farmers hand-weeded rice fields, picking out any plant that didn't look like rice and, over time, a few species (especially barnyard grass) eluded the predator (farmers) by mimicking the rice plant perfectly.

Photos of rivers choked with water hyacinth provided dramatic evidence of the problem this aquatic plant presents as it spreads around the world. In this case, its mode of reproduction is of particular interest. Water

hyacinths normally reproduce asexually, through cloning. Without sex there can be no mutations, hence no evolution. However, when water levels drop, this plant begins flowering and enters a sexual phase. Further, it has evolved a flower that permits self-fertilization, requiring no outside pollinator. So water drawdown, a management technique once thought effective in controlling water hyacinth, is likely to fail

because it promotes the change from asexual populations to flowering, seed-generating populations.

This is also likely to be the case with purple loosestrife. This plant was first introduced to North America about 150 years ago as an ornamental, and has spread across the continent. Professor Barrett has been involved in research aimed at documenting the evolution of purple loosestrife as it moved north in Ontario and evolved the means to successfully reproduce in the north's shorter growing season by producing fewer seeds faster.

In other words, controlling purple loosestrife, and many other invasive plants, requires eradication by hand before they flower, a labour-intensive task. Professor Barrett said that,

although he was not against the use of herbicides in appropriate settings, he was not enthusiastic about the use of more dangerous chemicals, such as "Roundup." One technique that is receiving a great deal of study is "biological controls", i.e. insects or other organisms that will attack the invasive species, and *only* the invasive species. The approval process is extremely rigorous because there is always the danger that, once the population of the invasive species is reduced, the introduced species may begin to attack native species.

So, those who attended this very interesting lecture did not learn of a "magic bullet" that would exterminate invasive plants quickly and easily. We did learn, however, that some fascinating science is focusing on these nuisance plants, and perhaps at some point we will have more effective means of dealing with them.



Water hyacinth at University of Toronto greenhouse, drawn by Jenny Bull

## EXTRACTS FROM OUTINGS REPORTS

**Bellamy Ravine and Bluffs on August 23, led by Charles Chaffey.** The group saw Red-necked Grebe and Trumpeter Swan. Some of the group retraced their steps then went by Elizabeth Simcoe School, one of the Toronto School Board's Eco-Schools, to look at the plantings where they saw a hummingbird and butterflies.

**Sherwood Park on August 26, led by Janice Palmer.** The leader put an emphasis on a variety of problems (e.g. invasive species, erosion and flooding) at this park, methods used to solve or mitigate them, the variety of volunteer opportunities, and high level of co-operation from City Forestry and Operations.

**Colonel Samuel Smith Park on August 28, led by Kerry Adams.** "One highlight was the sighting of a male Belted Kingfisher doing what he does best: hovering in one spot high over the water, then, in an explosive dive, plummeting to the water with the force of a fighter jet to catch his dinner (or snack) of a small fish. It seemed appropriate we should see this as we were about to see the annual CNE Toronto Air Show in a couple of days. Mother Nature gave us a preview of the aerodynamics to come at its best.... While having a break at some limestone boulders which we were able to use as tables and chairs, some in the group thought they saw a mink though some say it was a rat.... As we headed back it was as if Colonel Sam was holding the big finale of the nature air show for that moment. The show stopper was a Cooper's Hawk performing a low altitude sweeping manoeuvre dive for a starling."



Teasel at Col. Sam Smith Park,  
photo by Wendy Rothwell.

**Glen Stewart Park and Beaches on August 30, led by Bob Kortwright.** "Although Glen Stewart Ravine has suffered excessive trampling and incursions of Japanese knotweed, it is still a beautiful oasis of calm that retains many plants of interest. The lower extension of the park...has received some shrub plantings and control of dog-strangling vine. The gardens in the valley immediately north of Queen St. have plantings of redbud and cup-plant. Along the beach and in Woodbine Park, other Carolinian trees have been planted: hazel, tulip-tree, Kentucky coffee-tree."

**West Deane Park on September 9, led by Carol Sellers.** "...Some nice orb-weaving spiders including two black-and-yellow argiope. Also locust borer beetle and ambush bug."

**Sunnybrook Park on 18 September, led by Ann and Brian Gray.** "Highlights: Observing a family of Chipping Sparrows eating seeds so that we could study the identifying features of the juveniles. Excellent studies of an American dagger moth, a spider, and a northern walking stick. Adult and juvenile eastern daddy-longlegs were about in abundance. Paper wasps were busy at the cells of their colony and everyone studied them through the scope. The species was *Polistes dominulus*, native to Europe and widespread nationwide in Canada since 1980. We saw a once-married underwing moth and checked out its pattern in the scope, but were not able to identify the moth until we got home. While investigating the homes of pipe organ mud daubers, a juvenile Bald Eagle soared overhead on its southwesterly migration. Most participants had a good chance to see the eagle, for some a life bird. Green darners and white-faced meadowhawks hawked for insects, again a first for many." Also: "Dog-strangling vine has overtaken the edges of the mowed areas throughout the route."



Once-married underwing moth,  
photo by Ann Gray.

## FAVOURITE NATURE BOOKS

Responses received from members to our request for Holiday gift suggestions.

### ***Birds in Love: The Secret Courting & Mating Rituals of Extraordinary Birds***

by Jean Leveille, Voyageur Press, 2007

I was delighted to be presented with this book by the TFN to mark the end of my term as President. It is a fascinating portrayal of the secret courting and mating rituals of both common and exotic bird species.

Author and photographer Jean Leveille gives an up-close and personal description of these behaviours, accompanied by wonderful photos. *Birds in Love* would be appreciated by anyone who enjoys nature... but it would be particularly appropriate as a wedding, anniversary or Valentine's present!

Pinky Franklin

### ***Growing Trees from Seeds***

by Henry Kock, Firefly Books, 2008.

Right now, this is our favourite nature book. It's a practical guide to growing trees, vines and shrubs, and warns about invasive species and the urgent need for conservation. This excellent well-indexed 280-page book seems more a reference book than one that a lay person would read cover-to-cover. It includes beautiful illustrations and colour photos. About two-thirds of the book was written by Henry Kock, horticulturist at University of Guelph, and the rest by Paul Aird, John Ambrose and Gerald Waldron, after Henry died from brain cancer in 2005. We love the book, partly because dear Henry was our son-in-law.

Helen Hanson

### ***Timothy; or, Notes of an Abject Reptile***

by Verlyn Klinkenborg. Knopf hardcover, 2006; Vintage paperback, 2007.

Gilbert White, the Hampshire clergyman and field naturalist whose *Natural History of Selborne* has remained a classic since its publication in 1788, itemized the habits of his pet tortoise, Timothy, and puzzled over its mental capacities. Now Timothy does the same for the curate, and indeed for the rest of us

humans. You don't need to have read White's book. Klinkenborg, a member of the New York Times editorial board, cares about people's place in nature. In a century where that question is urgent and the debate is shrill, Timothy's view - you could call it humane - is a tonic. This short book goes well in small bites: a bit on the subway, a bit at night, while you take time to think up your own two cents' worth of reply.

Elinor Reading

### ***Canadian Geographic***

A magazine available in libraries, bookstores or by subscription: \$6.95/\$30

October 2008 issue:

- Norway's Handling of Carbon Tax
- Climate Change Reports: Australia, New Zealand, Africa and England
- Inuit Survival and Arctic Heat
- Joint International Polar Year and Climate Change

Please look into this magazine issue for perspective on our problems and some ideas to combat them.

Sheila Ryan

### ***Beauty and the Beasts – The Hidden World of Wildflowers***

by Michael W.P. Runtz. Stoddard, 1994.

This fascinating book describes the amazing variety of ways that wildflowers are designed to ensure survival of their species. Michael Runtz's superb photographs capture the beauty of the flowers, while the text reveals intriguing biological facts in a style accessible to the novice, helping us to realize that flowers are much more than just a delight for our eyes. I discovered this book to be an excellent source of interesting information when preparing to lead a nature walk. Although I believe it is no longer in print, copies are available on the internet, as are other nature books by Michael Runtz.

Wendy Rothwell

### ***Insects: Their Natural History and Diversity***

by Stephen A. Marshall, Professor of Entomology at the University of Guelph

This new insect resource was recommended in Thickson's Woods Land Trust newsletter.

"This book is amazing! Its more than 700 (8.5 X 11) pages contain many hundreds of superb colour photos of members of every order of insects from the tiniest springtail to the largest moth. While the identification key alone is more than 80 pages long, it's very user-friendly."

## KING OF FISHES: NATURAL HISTORY OF LAKE ONTARIO'S ATLANTIC SALMON

By Mark Conboy, originally printed in *The Blue Bill* (Kingston Field Naturalists), reprinted with permission.

The Atlantic salmon (*Salmo salar*) is a fish story in itself; anglers call it the King of Fishes because of its size, beauty and tenacity on the end of a line. Unknown to most naturalists, the Atlantic salmon was once part of Lake Ontario's native biota. It once schooled in abundance throughout Lake Ontario and was the dominant predator in that pre-colonial ecosystem. Unfortunately the salmon was extirpated in the late 1800s. It now swims again thanks to extensive reintroduction efforts in several tributaries on both sides of the border.

Today's Great Lakes are a shadow of their former selves. All of the historically abundant native fish species have declined and are being replaced by other native, invasive or introduced species. Much of the ecosystem's dynamics have been altered in the past two and a half centuries: tributaries have been dammed, the planktonic community irreversibly changed, water temperatures are on the rise and pollution continues to threaten. A survey of Lake Ontario in the sixteenth century would have found around 100 species of fish, about 20 of them quite common. They ranged in size from tiny emerald shiners to enormous lake sturgeon. Atlantic salmon and lake trout (collectively, salmonids) along with burbot were the top predators. They fed on abundant lake herring, whitefishes and ciscos. Many species, including salmon, migrated seasonally to tributaries for spawning (Smith 1995).

Lake Ontario salmon have a very different life history than their Maritime cousins. *Salmo salar* from the Atlantic coast are anadromous, meaning that they are born in freshwater and migrate to saltwater later in life. They return to freshwater years later as adults to spawn. The salmon of Lake Ontario were probably exclusively freshwater residents and did not migrate to and from the ocean. Fishes that engage in exclusively freshwater migrations are called potamodromous.

In Lake Ontario salmon breeding took place in some forty different tributary rivers and creeks. Phylopatry among salmon species is so strong that once a stream has been established as a spawning ground it will be returned to indefinitely by each successive generation of salmon. The natal streams have several distinctive features. There needs to be available cover such as sunken logs, boulders and overhanging banks, so salmon can rest out of the current, and hide from

predators such as northern river otters. The riverbed must be coarse gravel, as small spaces between stones harbour the eggs and keep them from drifting downstream and being lost.

Adult salmon would ascend tributaries in autumn to spawn. A female prepares a redd, or simple nest in the substrate by sweeping the gravel with her tail to remove fine particles of silt and create a slight depression. She selects a location that is well oxygenated and not liable to freeze over the winter. An accompanying male fertilizes the eggs once they are laid in the gravel. After the spawning process is complete the female re-covers the redd. The eggs usually do not hatch until spring, and the larval fish, called alevins, remain in the nest for a few weeks. During this time they rely on nutrients absorbed from the yolk sac that is attached to their underside. Once they emerge from the redd as parr, they begin to grow aggressively. The parr may stay at their natal sites for one to seven years depending on the population, after which time they transform into smolt and migrate downriver to Lake Ontario. For the next one to three years the salmon consume whitefish in the open lake. Some fish called grilse return to their natal rivers at one year old. Most fish return as adults after three or more years of pelagic life. Each adult salmon goes back to spawn in the same river it hatched from.

Just how they find their way back to their spawning grounds after years of absence remains to be determined, though evidence suggests they smell their way home! In sea-run Atlantic salmon, adults do not always die after spawning; some return to the ocean soon after spawning, others remain in the rivers all winter and return to sea in the spring. Over-wintering salmon are called kelts. Some adults make multiple migrations to spawn a second or rarely, a third time in successive years. It is unknown if repeat spawning was common in Lake Ontario or if kelts remained in the tributaries all winter.

Lake Ontario salmon resembled anadromous salmon in their sea-run form: silver underneath, and bluish above, without a pronounced hooked jaw or kype. Potamodromous forms typically attain smaller sizes than their anadromous cousins and Lake Ontario is no exception. The largest sea-run fish weigh in at over 30 kg. By comparison, freshwater forms require a large supply of forage fish to grow beyond 3 kg. In Lake Ontario, fish

weighing over 20 kg are known from anecdotal records, but the historical mean for fish caught in the Lake Ontario basin was probably about 2.5 kg. The largest salmon caught in recent times weighed a respectable 11 kg.

Land-locked and sea-run salmon are not two different species, as some older accounts suggest. The common ancestor of all Atlantic salmon, whether from freshwater, saltwater, Europe or North America, farmed or wild, appeared about 2 million years ago. The divergence of the two forms in the Great Lakes probably didn't begin until about 11,000 years ago. To complicate matters, not all land-locked salmon populations are descended from the same "freshwater ancestor". Individual freshwater populations were

segregated independently as glacial melt-waters drained away and lakes became isolated by receding water levels and uplifting landmasses. Each lake or river that contains (or contained) naturally occurring freshwater salmon represents a form of the species with distinct adaptations to local conditions; such that Atlantic salmon from Lake Ontario were unlike salmon from anywhere else. Each population is what conservation biologists refer to as an evolutionary

significant unit. Each unit is genetically distinct from all other freshwater salmon, and as units go extinct, so too do their unique genes. Scientists are now realizing that the real meaning of biodiversity is not species richness, but rather genetic richness and that it is important to ensure the continued survival of as many populations as possible.

In the context of glacial melt-waters, one can imagine how a population of salmon could become isolated in a remote lake. But Lake Ontario has a direct outlet to the Atlantic via the St. Lawrence River. How did Lake Ontario's salmon become "land-locked," if there was no barrier keeping them there? Salmon could have left Lake Ontario, but in doing so they would have to run through rapids on the St. Lawrence – which a salmon could easily do.

The real obstacle was to salmon that attempted to **return** to the lake. Several large sets of rapids on the St. Lawrence are massive enough to keep most salmon from ascending into Lake Ontario. Therefore salmon that left the lake would be permanently out of the gene pool (no pun intended). Eventually the genetic predisposition for seaward migration would be "weeded out" of the population. A similar barrier, Niagara Falls, effectively blocked salmon from reaching any of the other Great Lakes.

*Salmo salar* flourished as part of the Lake Ontario ecosystem for several thousand years. Anthropogenic influences starting around the time of European settlement are cited as the chief reason for the extirpation of our endemic salmon. Over-exploitation

of fish stocks probably played a small part in the story in the species' decline. Habitat destruction in the form of dams and increased sedimentation from unenlightened agricultural practices took the greatest toll. Mill dams, sometimes many on the same river, blocked access to headwater spawning areas. Siltation due to soil erosion caused by land clearing for farms and forestry would have smothered riverbeds with mud, covering the gravel needed for egg survival. As trees were cut along the river



Drawing of aquatic plants by Steve Varga.

banks, shade was removed and streams became too warm for salmon. Swamps and marshes were drained, causing river levels to fall to the point that salmon could no longer navigate them. Until recently the ultimate cause of extirpation remained uncertain.

Some researchers now suggest that the final blow against Lake Ontario's salmon was dealt by the humble alewife. The alewife is a small forage fish that is often preyed upon by salmonids. It plays a major part in the food-chain dynamics of the present-day Great Lakes, where reintroduced salmon consume it regularly. Alewives invaded the Great Lakes around 1860 (or earlier), from the Atlantic Ocean via the Erie Canal. Since that time they have established themselves as one of the dominant small fishes. The pristine

## SALMON IN THE DON

By Norah Murphy, Task Force Member and Community Steward. Reprinted with permission from *Bring Back the Don Seasonal Update*, Fall 2008. [www.toronto.ca/don/pdf/2008\\_fall.pdf](http://www.toronto.ca/don/pdf/2008_fall.pdf)

“...thirty-pounders were not uncommon. The salmon was usually taken by spearing, after the Indian manner, either in bright sunlight from an overhanging log, or by lighting a fire at night.” —J.E. Middleton, *The Municipality of Toronto, Volume II, Toronto, 1923*

If you’ve visited the Don River during September or October in the past several years, you may have seen similarly toddler-sized salmon—sometimes more than a dozen at a glance—making their way up the river to spawn. And you may have assumed that this sight was one shared by countless Torontonians over the centuries. But in fact, by the time Middleton published his history in 1923, salmon hadn’t been seen in the Don in more than 40 years.

So why did the salmon disappear from the Don? And why are they back now? The answer to both questions is: us.

During the 19th century, the Don River was a dumpsite for everything from lumber mills to chemical plants, and by the end of that century the river was so polluted that the city decided it needed to “improve” the river, in part by turning it into a flat, straight canal. Between the pollution, damming of the river by mills, the destruction of the river bed where the fish would spawn, and the increase in water temperature and decline in oxygen levels, the salmon really didn’t have a chance.

Today we’re only just starting to clean up this environmental damage. We may not have gas works dumping directly into the river, but the run-off from the Don Valley Parkway is full of petroleum products and chloride from road salt. Some of the barriers that made it impossible for salmon to swim upstream have been removed, but the riverbed still provides few places for salmon to lay their eggs. And storm water is still routed directly into the river from roads, bringing with it silt and raising the water temperature to levels that can’t sustain large fish.

Yet there are salmon in the river—a river that in 2007 was rated the most polluted in Ontario by Environment Canada. This isn’t a testament to the hardiness of the native Atlantic salmon. In fact, those aren’t even Atlantic salmon—they’re Chinook and Coho salmon from the Pacific, and stocked by the Ministry of Natural Resources for recreational fishing. The Ministry is trying to return Atlantic salmon to Ontario, but success so far has been limited: the habitat has to be improved first.

That means re-naturalizing everything in and around the river, from the mouth of the Don to its headwaters north of the city. Even the tree cover needs to be increased, as shade helps keep the water temperature down and the oxygen levels up. It may take many more years before Atlantic salmon once again spawn in the Don River. But when they do, it will be the clearest indicator possible that we have succeeded in bringing back the Don.

### More about salmon and the Don ....

- See In The News, page 16, for notice of a Don-Waterfront Water Quality Environmental Assessment.
- Kudos to TFN member, Norm McTague, for reporting to us his concern that several fallen trees across the tributary of the Don near his home would prevent salmon from going upstream to spawn. He assisted Parks & Rec. staff in locating the problem, and they are assessing what needs to be done.
- On November 16, a joint Lost Rivers-TFN outing at the Don will be held in celebration of World Fisheries Day – see Outings on page 5.

## A NEW SUBSPECIES OF COMMON REED GRASS INVADES OUR WETLANDS

By Bob Bowles, [www.kidsforturtles.com/Resources/Common-Reed-Grass.pdf](http://www.kidsforturtles.com/Resources/Common-Reed-Grass.pdf), reprinted with permission.

Many people are aware of a European plant with a beautiful mauve flower called purple loosestrife that has been introduced into North America by garden planting that has become strongly established as an invasive plant in our wetlands due to media coverage by several groups. However, there is another invasive plant that is damaging to wetlands that many have not even heard about. The problem is that this new invasive is a subspecies and very similar to a native species of reed.

The new subspecies may have established here as early as 1970 but was not recognized as an alien until the late 1990s. It is very difficult for the average person to distinguish it from the native species and since it is a grass without colourful, showy flowers it may go unnoticed. The plant is European common reed, *Phragmites australis australis* and looks almost identical to American common reed, *Phragmites australis americanus*. Botanists have found that the native subspecies has red to reddish-purple internodes at the base of the stem and lower glumes that measure longer than 4 mm in length. The invasive European subspecies has pale yellow internodes at the base of the

stem and longer lower glumes measuring less than 4 mm. The highly invasive European subspecies has established itself recently in colonies along major roads and then is spread into nearby wetlands where it flourishes and crowds out native species of plants.



Reed grass on Toronto Islands  
photographed by Jenny Bull.

Wildlife and water flow within the wetland help spread the seeds to new wetland locations where colonies soon choke out the wetlands. It has become a major pest of irrigation and flood channels around the world and is able to live in water up to 2 m deep or on dry ground. Water draw-down which controls most aquatic plants has no effect on this subspecies. Sensitive wetlands should have buffer zones exceeding 1 km to prevent colonization of this invasive subspecies.

The subspecies is now spreading across Canada from colonies in Ontario and Quebec and has recently been reported in western Canada and the Maritimes. It is expected that within the next 20 years it will be found in all wetlands with roads nearby. Monitoring of the two subspecies will be essential to protect the native biodiversity of Ontario wetlands.

### The Red-Eared Slider

From Toronto Zoo, [www.torontozoo.com](http://www.torontozoo.com)

The red-eared slider (*Trachemys scripta elegans*) is often sold in pet stores, but is not native to Ontario. **Never release your pet turtle into the wild.** They may carry diseases that threaten our native turtles, and are not likely to survive.

- A broad red or orange band behind the eye gives it its name. In many adults, especially males, this characteristic is faded.
- Carapace varies in colour from olive to brown or dark brownish, and is marked with a pattern of yellow and black bands and stripes
- The plastron is yellowish and often has dark spots or smudges in the centre of each scute
- The head and limbs are green, olive, or brown with black and yellow stripes
- The red-eared slider is found naturally from West Virginia to northern Indiana and Illinois, south to western Georgia, through Texas to northern Mexico as well as eastern New Mexico.

There are confirmed sightings of red-eared sliders throughout the Greater Toronto area because they have been abandoned by pet owners. The red-eared slider competes with native turtles for food and basking sites. It can also occupy areas that are favorable nesting and over-wintering sites for native turtles. If you no longer want your pet turtle, consider giving it to a friend, a pet shop, or try contacting one of the following organizations: **Turtle House** [www.turtlehomes.org](http://www.turtlehomes.org); **The Ontario Turtle and Tortoise Society** <http://members.aol.com/WALDIAL/ottsadpt.htm>

## EUROPEAN FIRE ANTS

Several TFN members have been noticing an increase in encounters with fire ants on outings in various parts of the city. An email to the TRCA about these stinging ants on the Leslie St. Spit brought this reply from Karen McDonald, Project Manager, Restoration & Environmental Monitoring Projects:

“You most likely were indeed stung by these small, but mighty beasts. Tommy Thompson Park has large colonies of these invasive ants, however, most of the waterfront and local creeks are equally infested. They seem to especially proliferate in sandy areas where fallen trees and rotting wood are plentiful. I have personally, unknowingly, transported them around on my clothing and found even after I had been inside for over an hour they were crawling on my clothes! At the height of the summer they seem to be over almost every stem of vegetation that borders waters edges.

“When hiking in areas with red ants wear thick socks and tuck your pants into them. Wear long sleeves and if possible cinch your cuffs closed. Beware of tall vegetation where ants could fall from above or drop onto your shirt and climb in. Insect repellants with DEET have moderate success at repelling them. Unfortunately anti-itch ointments are also only moderately successful at relieving the itch - in my opinion ice over the area for short durations works best.”

A bulletin on the University of Maine website reports that European fire ants (also known as European red ants, *Myrmica rubra*) are very small red ants. The workers are about 4-5 mm long and the queens are a little larger. Their constricted waist has two segments, while most native species have only one. They are only distantly related to the “true” fire ants (*Solenopsis species*) found in the southern U.S. and Latin America.

The European fire ant may be small but, as the website explains, they’re extremely territorial and are prepared to sting animals or humans who wander into their foraging area. The severity of the sting varies, but generally it results “in an inflamed red area from one to four inches

in diameter, sometimes with a raised white area in the center.”

Be wary, because European fire ant nests are hard to see. These ants do not nest in large mounds; instead, they live in smaller communities (varying in size from a few hundred to ten thousand workers) in plant roots, under rotting logs, or in other moist areas. Nest densities can be extremely high: 10-12 nests can exist in a 10 ft. by 10 ft. area, and nests usually have multiple egg-laying queens.

According to an agricultural extension website at the University of Florida, the native range of the European fire ant spans from Ireland to Western Siberia, so climate will not prevent their spread to northern areas of North America. They were first discovered on the coast of Maine over 50 years ago, but they’ve spread rapidly over the past decade, often by humans who unknowingly transport them in potted plants, mulch or soil. They also expand their territory by colony budding: a group of ants moves a queen away from the original colony to start a new nest nearby.

An article in Macleans, “*Red red whine*” by Alexandra Shimo, reports that European fire ants threaten native ant species because they aggressively compete for food and have no known predators. In addition, the fire ants exacerbate populations of insects such as aphids and scales. These plant-feeders are protected from predators by the fire ants because they secrete a sugary substance which the fire ants eat.

Attempts at controlling the European fire ants have met with limited success. Dr. Eleanor Groden, associate professor of entomology at the University of Maine, indicates that the ants resist regular ant pesticides. Research is currently underway on a number of “least toxic” strategies such as insect growth regulators, boric acid baits, and biological control.

For now, we can try to prevent the spread of European fire ants by checking mulch and potted plants, and by monitoring infested areas.

Valerie Mitano

Cicadas buzzing

A memory too soon now

Of hot summer days.

Haiku by Helen Juhola

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*Featured Creatures*, Univ. of Florida, Inst. of Food and Agric. Sci. [creatures.ifas.ufl.edu/urban/ants/Myrmica\\_ruba.htm](http://creatures.ifas.ufl.edu/urban/ants/Myrmica_ruba.htm)  
 Town of Richmond Hill. *European Fire Ant Fact Sheet*.  
[www.richmondhill.ca/documents/prc\\_fireant\\_brochure.pdf](http://www.richmondhill.ca/documents/prc_fireant_brochure.pdf)

## TFN NATURE RESERVE TOUR SEPTEMBER 27, 2008

On a warm but overcast September morning, ten TFN'ers explored a small part of our Jim Baillie Nature Reserve near Uxbridge. Within seconds of our arrival, we heard the raucous calls of a pair of Caspian Terns and then spotted the birds flying just below the low cloud ceiling. They were migrating from Lake Simcoe south to Lake Ontario, or perhaps all the way to the eastern seaboard. Our nature reserves booklet contains an extensive list of bird species, but Caspian Tern had never been recorded previously. We were off to a good start!

Our reserves are largely forested swampland. Years ago the TFN established a walking trail with a boardwalk over the more flooded sections. The trail had become overgrown and some boardwalk sections rotted. We admired the handiwork of member Barry Tocher who had just constructed and installed several new boardwalk sections. We also appreciated the lack of mosquitoes which plagued Barry and his assistant only a few weeks' earlier.

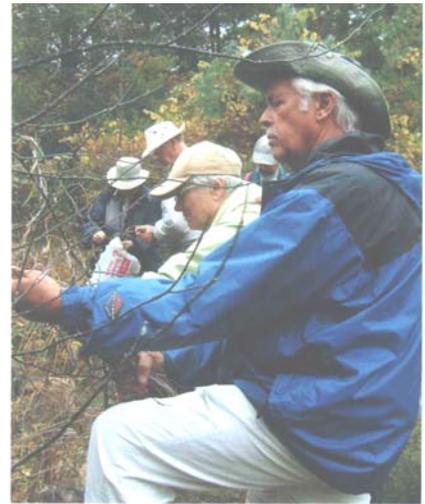
Splashes of fall colour lit up the forest. In particular, many shrubs and vines, such as alternate-leaved dogwood, Virginia creeper and choke cherry had already turned a brilliant red. Several species of asters and goldenrods were showing well and we had close studies of some of the more distinctive species. Near the picnic shelter Bob Bose spotted a most unusual plant, orange-fruited horse gentian (*Triosteum aurantiacum*), a herbaceous member of the honeysuckle family which is uncommon but widely distributed. At this time of year, few could walk by without remarking on the strange orange berries in the leaf axils.



Bob Bose with his discovery, photo by Wendy Rothwell.

A colony of dog-strangling vine had established itself near the rock pile and, with a little help from everybody, we removed the pods, preventing it from spreading by seed.

On our way back to the gate, we admired an extensive patch of pixie cup lichen, looking just like a bunch of tiny golf tees.



Pulling pods from DSV, photo by Anne Byzko.

After a quick lunch break, we headed down Fowler's Road towards Uxbridge Creek. Very few vehicles use this road making for a quiet and pleasant amble beside our nature reserve. Most of us had a good look at a young male Rose-breasted Grosbeak at eye level. Those with good hearing appreciated the regular drumming of a Ruffed Grouse. If the air is warm and spring-like, they will display off-season. Although some distance away, the sound of shotguns reminded us that hunters also enjoy the autumn. Numbers of Ruffed Grouse have declined around all urban areas—we wished this bird Godspeed and hope to hear it drumming when we return to the reserves next spring.

George Bryant



Pixie cups, photo by Wendy Rothwell.

## WIND TURBINES AND NESTING BIRDS

In the August 2008 issue of Ontario Birds, journal of the Ontario Field Ornithologists, Ross D. James reports on nesting birds in and around the Erie Shores Wind Farm during its first two years. The articles I have previously read about the effect of wind turbines on birds dealt mainly with migration. James' detailed observations include a wide variety of nesting species from raptors to songbirds. He also reviewed findings from studies conducted at several other wind turbine installations in North America and Europe, including one in Belgium with "poorly sited turbines near a port breakwall with a tern colony".

At Erie Shores "turbines were located 150 m to 2.5 km inland from the high bluffs" of the shores and most were erected in agricultural fields, "at least 40 m (to the base of the tower) away from any number of trees or shrubs". Cultivated fields provide suitable habitat for "relatively few bird species" and James observes they "were limited in nesting more by a lack of available habitat than by proximity of a turbine at Erie Shores. They seemed to be nesting as close as the habitat allowed."

In 2007, 17 Killdeer nests were found on the gravel laneways leading to the turbines but "few nests survived the raccoons, skunks and human activity". Although Killdeer were observed "in courtship flights, going around and around an operating turbine, at blade height,

passing across the face of the blades" no mortality was recorded. A pair of Bald Eagles nested "about 400 m from a turbine" and "two fairly large young were seen in the nest" in June, 2008. In 2006 a pair of Red-tailed Hawks nested "135 m from a turbine under construction ... The turbine began operating in mid May, and the pair continued to live and raise one young over the next month." The following year a pair returned to a nearby tree and nested "in the middle of a quadrangle of turbines. They hunted in fields near all four turbines and again raised one young in this nest."

James comments that birds can quickly adapt to the sound of the turbines which he found to be relatively quiet. He notes "for smaller birds that, apart from migratory movements, are living through the summer below the height of the tallest trees, a turbine does not represent any threat at all. Only if the noise from the turbine was loud enough to interfere with their song/call communications would it pose a problem ... For larger birds, that may be flying above tree canopy height" the hazard of the blades "is always in a known specific location that could be readily avoided. They only become a hazard when birds become so adapted to the presence of a turbine that they no longer stay a safe distance away from the blades. The willingness of birds to approach turbine blades in flight, is the subject for another time."

Marilynn Murphy

## IN THE NEWS

### **Emerald Ash Borer Update**

A news release from the Canadian Food Inspection Agency (CFIA, Sept. 22) reports that EAB has been found in Sault-Ste-Marie, its first appearance in northern Ontario. It is spread by people moving firewood. Fortunately, the Summer 2008 issue of *The Bluestem Banner*, news-letter of Tallgrass Ontario ([www.tallgrassontario.org](http://www.tallgrassontario.org)), reports that a rare species of sand wasp found in the prairie remnants of Windsor is showing that the value of protecting tallgrass habitats is not always obvious. The tiny insect is being used to

combat the spread of the invasive emerald ash borer (EAB), which has killed more than 20 million ash trees in North America. A few wasps from a colony were removed by researchers at the University of Guelph and moved to different areas of the province (see [www.uoguelph.ca/debu/pdf/biosurveillance\\_cerceris\\_and\\_eab\\_2007.pdf](http://www.uoguelph.ca/debu/pdf/biosurveillance_cerceris_and_eab_2007.pdf)). The researchers hope the wasps will assist people in monitoring for the pest by detecting the beetles before they become too established to eradicate.

### **Don and Waterfront Environmental Assessment**

The City of Toronto has initiated an Environmental Assessment called the Don and Waterfront Trunk Sewers and Combined Sewer Overflow Control Strategy. In 1987 Toronto was named an "Area of Concern" for Great Lakes water quality, largely due to polluted stormwater and combined sewer overflows in the Don River and Inner Harbour. Efforts to improve water quality have not been successful so far. Toronto's Wet Weather Flow

Management Master Plan, completed in 2003, created a policy and recommended a number of actions to clean Toronto's waterways, including this environmental assessment, to be completed in 2010. The cost may be as much as \$500 million. You can learn more at [www.toronto.ca/involved/projects/clean-waterways](http://www.toronto.ca/involved/projects/clean-waterways). **To get involved call 416-338-5470 or email [cleanwaterways@toronto.ca](mailto:cleanwaterways@toronto.ca).**

## FROM THE ARCHIVES

From TFN newsletter #222, November 1966

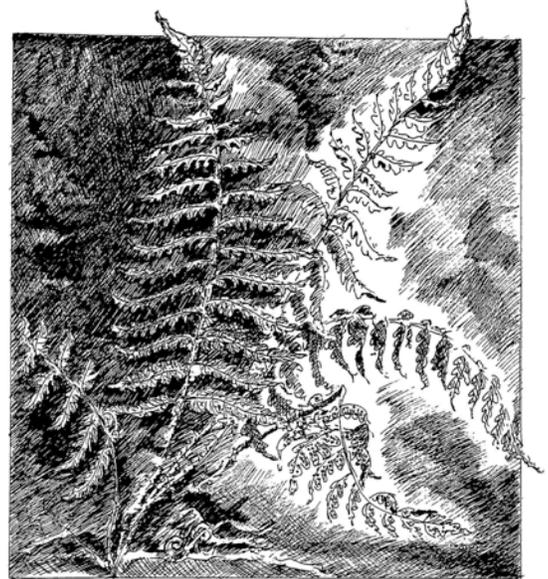
Mr. A. A. Outram, well known to most of us, and a former president of the Club, has some interesting things to say about ferns.

### Fern Seed

Because of its very small size, fern-seed has given rise to many superstitions throughout the ages. One widely-held belief was that a person carrying such seed could become invisible. We find the idea expressed by Shakespeare in "Henry IV", Part 1, where Gadshill says to the chamberlain, "*We steal as in a castle, cock sure: we have the receipt of fern seed, we walk invisible.*" This was probably written in 1597. That one who could write "The Tempest" believed this is rather doubtful, but it is quite acceptable to his public.

Ben Jonson in his play, "New Inn" performed by the King's Men at The Blackfriars in 1629, has as follows: "*I had no medicine, sir, to go invisible, no fern-seed in my pocket.*" Samuel Butler writes about 1670 in "Hudibras", in the Argument of Canto III:

*Who would believe what strange bugbears  
Mankind creates itself, of fears,  
That spring, like fern, that insect weed,  
Equivocally, without seed?  
And have no possible foundation,  
But merely in the imagination.*



Crested fern, a Toronto species,  
drawn by Diana Banville.

Dr. Samuel Johnson, who, it is said, put an "h" in his name to avoid confusion with the earlier Ben Jonson, defines "fern" fairly well in his great dictionary of 1755.

*Fern. A plant. The leaves are formed of a number of small pinnules, dentated on the edges, and set close by one another on slender ribs. On the back of these pinnules are produced the seeds, small and extremely numerous. The country people esteem it a sovereign remedy decocted for the rickets in children.*

The word "fern-seed" could be found in dictionaries up to fairly recent times. Of course ferns have no true seeds, but spores contained in cases. When ripe, a case explodes and gives off a cloud of very fine spores, invisible, or nearly so, to the naked eye.

### Atlas of the Breeding Birds of Ontario

Published earlier this year, this atlas contains detailed information on the range, habitats and population trends of Ontario birds, and is being praised as one of the most authoritative and comprehensive breeding bird atlases ever published. Full retail price is \$97.13 incl. GST.

Due to a special offer to nature clubs, you have the opportunity to buy the atlas – for yourself or as a gift – at the bargain price of \$82.00 incl. GST, while also helping the TFN.

To take advantage of this offer, we need at least 5 purchasers, who must be willing to pick up the book from the TFN office. If you are interested, please phone or email the TFN office.

## WEATHER (THIS TIME LAST YEAR)

### NOVEMBER 2007

November finally brought a reversal to our weather. Temperatures averaged below the long-term average, rainfall was above normal, and we even had an early winter storm. The contrast with earlier in the fall was stunning.

It was the coldest November since 1996 downtown, with a mean of 3.8°, a degree below normal. Pearson's average temperature of 2.6° was the lowest since 1997. Overall, it was consistently cool with no extreme drops. The only mild spell was the 11th-14th. Temperatures peaked in the mid-teens.

A potent winter storm affected southern Ontario on the 22nd to 23rd. A normal rainfall turned to freezing rain and snow. The boundary between freezing rain and snow bisected Toronto; Pearson Airport had 11 cm of snow, while downtown only had 2 cm. The normal snowfall for November is about 8 cm. After the storm, temperatures dropped to -9.9° at Pearson and -8.2°

downtown. These are not exceptionally low readings, having been exceeded in November as recently as 2005. But it was a real wintry shock.

The long drought of 2007 finally began to ease significantly. Total precipitation downtown was 81.3 mm and at Pearson it was 87.8 mm. These values are slightly above normal. But soil moisture deficits remained high and it would take a lot of rain and snow over the coming winter to reverse them.

One of the stranger after-effects of the drought was the persistence of fully-green leaves on many trees until they got frozen off by the wintry spell of the 22nd to 23rd. Some trees had lost their leaves due to drought by late summer, while others held on, presumably waiting for enough soil moisture to recharge their tissues and become ready for winter. Fall colours in 2007 were very subdued generally.

Gavin Miller

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### King of Fishes, *continued from page 11.*

Lake Ontario ecosystem contained no alewife, and whitefish were the salmon's primary prey. But as alewife began to figure more prominently in the salmon's diet, it led to serious health problems for the lake's top predator. A diet focused on alewife and the more recently introduced rainbow smelt, results in thiamine (vitamin B1) deficiency in adult salmon. Alewife and smelt contain an enzyme that breaks down vitamin B1 resulting in an anorexia-like condition. Starved females cannot produce viable eggs (salmon eggs require high concentrations of thiamine), so hatching success in the few streams that still allowed for spawning would have been too low to sustain the population.

Today the Atlantic salmon is once again swimming in Lake Ontario, but now it is joined by several other salmon species introduced from the Pacific coast, in

part to help reduce alewife and smelt numbers. These introduced salmon, specifically Chinook salmon, increase mortality of Atlantic salmon in experimental release streams where both occur. Chinooks prey on young Atlantics, and the two species may even be hybridizing. Introduced rainbow trout or steelhead also cause significant mortality to parr and eggs in spawning streams. There remains the thiamine deficiency caused by non-native forage fish in Lake Ontario. Though its permanent return to the lake ecosystem is not yet a sure thing, provincial and state governments as well as private organisations are working to re-establish a stable, self-sustaining salmon population. With a little luck, naturalists and anglers can look forward to someday sharing Lake Ontario indefinitely with the King of Fishes.

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## COMING EVENTS

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

### Toronto Entomologists' Association (TEA)

Room 006, Northrop Frye Hall, 73 Queen's Park Cres. E., University of Toronto. Info: [www.ontarioinsects.org](http://www.ontarioinsects.org)  
Sat. Nov. 22, 1:15 pm. Creative Uses of Mud, Bill McIlveen; It's Crowded in Here! Peter Hallett.

### Rouge Valley Guided Nature Walks

Information: 416-282-8265, [www.rougevalleynaturalists.com/news](http://www.rougevalleynaturalists.com/news)

- Sun. Nov. 9, 1:30 pm. Meet at Rouge Valley Conservation Centre, 1749 Meadowvale Rd., east on the Toronto Zoo on-ramp.
- Sun. Nov. 30, 1:30 pm. Meet at Glen Rouge Campground, 7450 Kingston Rd. in parking lot west of the Rouge River Bridge

### High Park Walking Tours

2nd and 4th Sundays, 10:30 am to 12 noon. Meet at the benches across the road south of Grenadier Café. Free. Information: 416-392-1748 ext. 5 or [walkingtours@highpark.org](mailto:walkingtours@highpark.org) or [www.highpark.org](http://www.highpark.org)

- Nov. 9 – Myths and Legends of High Park, Colborne Lodge Staff.
- Nov. 23 – Art in the Park: Monuments and Sculptures, Grace Petrucci.

### High Park Volunteer Stewardship Program

1st and 3rd Sundays, 10:30 am to 1 pm. Meet in front of the Grenadier Café. Information: [vsp@highpark.org](mailto:vsp@highpark.org) or [www.highpark.org](http://www.highpark.org).

- Nov. 2 – Buckthorn cutting along Howard Park Blvd.
- Nov. 16 – Seed collection/buckthorn cutting/end of season Pot Luck lunch.

### Science on Sundays

Sundays at 3 pm. Royal Canadian Institute, J.J.R. Macleod Auditorium, Medical Sciences Building, University of Toronto, 1 King's College Circle, Toronto. Free. Information: [www.royalcanadianinstitute.org](http://www.royalcanadianinstitute.org) or 416-977-2983

- Nov. 2 – Using Big Magnets to Understand Environmental Contamination, Myrna Simpson, Ph.D. & Andre Simpson, Ph.D.
- Nov. 9 – Coping with Impossible Problems, Margaret H. Wright, Ph.D.
- Nov. 16 – How Semiconductor Grass will Solve the Energy Crisis, Ray LaPierre, Ph.D., P.Eng.
- Nov. 23 – Managing without Growth: Slower by Design, not Disaster, Peter A. Victor, Ph.D.
- Nov. 30 – Fun for Kids ages 6-12: The Fiz in Physics and Other Science Stuff, Russell Zeid,

### The Market Gallery

South St. Lawrence Market, 2nd floor, 95 Front St. E. Free. Note: Gallery is closed Sundays, Mondays and holidays.

- Until Feb. 22, 2009: Over Any Distance Imaginable. An exhibition chronicling letter writing and the postal system in Upper Canada.

### Lost Rivers Walks

Information: [www.lostrivers.ca](http://www.lostrivers.ca)

- Sun. Nov. 2, 2 pm (2-3 hrs.). The Waterworks Triangle (High Level Pumping Station, St. Clair Reservoir and Rosehill Reservoir). Leader: Wayne Reeves. Meet outside Dupont subway station.
- Sat. Nov. 15, 1 pm. Celebrate world toilet day. Walk from inlet to outlet, from tap to toilet. Leader: Helen Mills. Starting point TBA.

### Ian Wheal Walks

- Fri. Nov. 7, 2 pm. Lost Copper Mountain Mine, Ghost walk, Barrie, Ont. Meet at GO Concourse (East Side) Union Station to take GO train to Barrie. Bring bus fare.
- Sun. Nov. 9, 1 pm. Military Remembrance Day streetcar ride to Long Branch Military Camp. Meet at TTC stop on south side of King St. W. at Roncesvalles Ave.
- Tues. Nov. 11, 10 am. Great War Memorial Walk. Meet at TTC loop, Long Branch, for service.

### The Arboretum, University of Guelph

Winter Trees workshop. Instructor Josh Sayers. Fee \$30. To register: 519-824-4120, Ext. 52358. Information: [www.uoguelph.ca/arboretum](http://www.uoguelph.ca/arboretum)

- Sat. Nov. 22, 1 pm – 4 pm *or*
- Sun. Nov. 23, 9 am – 12 noon *or* 1 pm – 4 pm

**Toronto Field Naturalists**

2 Carlton St., #1519  
Toronto, Ontario M5B 1J3

**Publications Mail**  
Registration No. 40049590



Visit to Jim Baillie Nature Reserve, September 27, 2008, photographed by Wendy Rothwell.