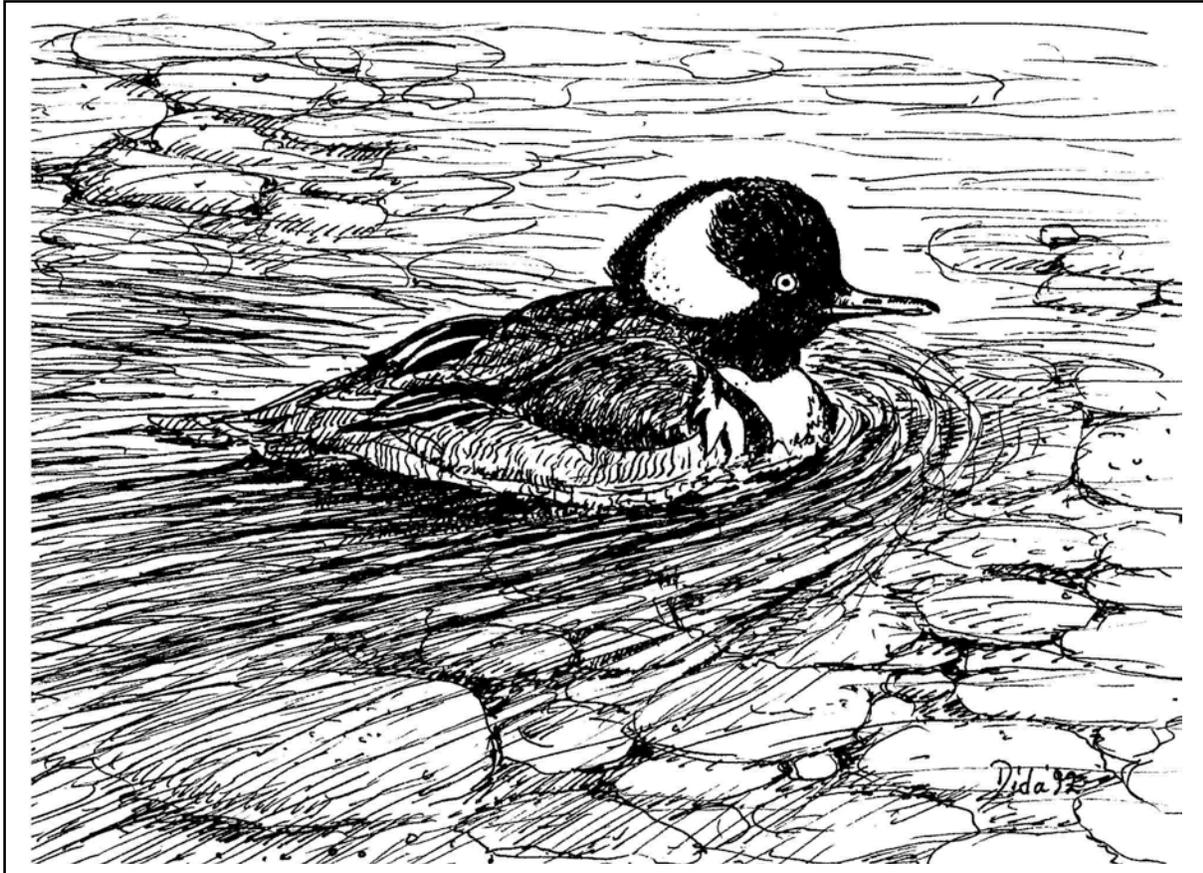


TORONTO FIELD NATURALIST

Number 553

February 2008



Hooded Merganser by Diana Banville

REGULARS

Coming Events	23
For Reading	14
From the Archives	21
In the News	19
Keeping in Touch	16
Monthly Meetings Notice	3
Monthly Meeting Report	8
Outings Reports	7
President's Report	6
TFN Outings	4
TFN Publications	2
Weather	22

FEATURES

Lichens Reflect	
Environmental Quality	10
Slime Moulds	12
Frog Hibernation: Freeze-tolerant Frogs	13
Are Ontario's Plans for Growth Sustainable?	14
Remembering Peter Hare	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.

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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 March issue: Feb. 1, 2008.

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

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Please note: TFN does not give out its membership list.

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Add \$2.00 per item for postage and handling; no GST. Order from TFN office, see address above.

TFN MEETING

Sunday, February 3 at 2:30 pm

Reptiles and Amphibians of Eastern North America

*Sid Daniels, retired elementary school principal
and lifelong naturalist*



Eastern Hognose Snake, by Diana Banville

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 Meetings

- Mar. 2 *The Galapagos and Ballestas Islands*
Peter Money, TFN member, retired geologist, amateur naturalist and photographer
- Apr. 6 *Flying Whimbrels and Soaring Spirits: An examination of Presqu'ile and Petroglyphs Provincial Parks*
David Bree, Naturalist, Ontario Provincial Parks
- May 4 *Fathom Five National Marine Park*
Lisa Tutty, University of Toronto

Ontario Nature 2007 Conservation Awards

Ontario Nature Conservation Awards recognize excellence by honouring individuals, groups, government agencies, and corporations who have worked to protect Ontario's nature. Awards are published in the autumn issue of *ON Nature*. Nominations deadline: March 7.

Ontario Nature 3rd Annual Youth Writing Contest

*"How is climate change affecting you
and your community?"*

- An essay, story, or other piece of creative writing, maximum 700 words, typed and double spaced.
- Top 3 entries will be published in *ON Nature* magazine.
- You must be a Grade 7 or 8 student.
- Send by March 3 to Youth Writing Contest, Ontario Nature, 366 Adelaide St. W., Suite 201, Toronto M5V 1R9.

For descriptions of the ten awards and the rules of the essay contest, see www.ontarionature.org or email info@ontarionature.org or phone 416-444-8419.

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,
Feb. 2
10:30 a.m. **QUEEN'S QUAY TERMINAL – Nature Arts**
Leader: Nancy Anderson
Meet at the second floor Food Court, lakeside of the Queen's Quay Terminal Building at the foot of York St. on the south side of Queen's Quay W. Bring what you wish for photography, painting, sketching, etc. We may also visit the Harbourfront Gallery. Bring any work that you wish to share after lunch.
- Tuesday,
Feb. 5
10:00 a.m. **LAMBTON WOODS – Winter Birds**
Leader: Barbara Kalthoff
Meet at the entrance to James Gardens on Edenbridge Dr. just east of Royal York Rd. Bring binoculars. Morning only.
- Saturday,
Feb. 9
10:00 a.m. **HUMBER BAY PARK EAST – Birds**
Leader: Wendy Rothwell
Meet at the southwest corner of Lake Shore Blvd. W. and Park Lawn Rd. Bring binoculars. Morning only.
- Wednesday,
Feb. 13
1:00 p.m. **SHERWOOD PARK – Urban Issues**
Leader: Janice Palmer
Meet at the park gate, east end of Sherwood Ave., 200 meters from bus stop at Mount Pleasant Rd. and Sherwood Ave. Parking is limited. This will be a 2-hour circular hike. We will be looking at some of the problems in a heavily-used park and some of the remediation methods used to reduce human impact. Parts of the walk are quite steep.
- Saturday,
Feb. 16
10:00 a.m. **LESLIE STREET SPIT – Birds and Trees**
Leader: Bob Kortright
Meet at the park entrance at Leslie St. and Unwin Ave. Bring lunch and binoculars.
- Sunday,
Feb. 17
1:00 p.m. **RIVERDALE EAST – Heritage Day Lost – Rivers Walk**
Leader: John Wilson
Meet in front of the Broadview subway station. End with hot refreshment at the Riverdale Farm "Meeting House."
- Thursday,
Feb. 21
10:00 a.m. **HUMBER BAY PARK EAST – Birds**
Leader: Doug Paton
Meet at the Humber Loop (south of the Queensway), accessible by the Queen streetcar or the bus from Old Mill subway station. Bring binoculars. Morning only.

Saturday,
Feb. 23
1:00 p.m. **HUMBER RIVER, WESTON AREA – Heritage and Nature**
Leader: Mary Lou Ashbourne
Meet at the entrance to Cruikshank Park at the intersection of Church St. and Weston Rd. Bring binoculars.

Tuesday,
Feb. 26
10:30 a.m. **ASHBRIDGE'S BAY – Birds**
Leader: Margaret Catto
Meet at the southwest corner of Lake Shore Blvd. E. and Coxwell Ave. Bring binoculars. Morning only.



Outing on Leslie Street Spit, December 15, 2007,
photographed by Norah Jancik



Outing at Mount Pleasant Cemetery, December 4, 2007,
photographed by Norah Jancik

SPECIAL EVENT!

NATURE IMAGES BY TFN MEMBERS

Saturday, March 1, 2:15 pm to 4 pm.

Northern District Library, Room 224BC,
40 Orchard View Blvd. (west off Yonge St., 1 block north of Eglinton Ave.)

Please bring your digital images, slides (transparencies), prints, paintings and sketches to share with fellow TFN members. Any natural history subjects will be welcomed. If you have nothing you wish to display at this time please come and enjoy the show.

We request that you select a **maximum** of 20 of your digital images or slides. You may also bring an additional set or two to be shown if time permits. Digital images must be brought as CD's so they can be projected. If possible, bring slides in Kodak Carousel trays or stack loaders. A spare slide tray will be available.

We would greatly appreciate volunteers arriving between 2 pm and 2:15 pm to aid in setting up.

Co-leaders: Peter Money and Margaret McRae

PRESIDENT'S REPORT

Last year at this time I reported on the doom and gloom of a series of (un)naturally occurring events...most memorable being the lack of winter weather through to the middle of January. As I write this on New Year's Day 2008, are we celebrating the return of a more traditional winter that started with lots of snow and ice in early December and shows no sign of abating?

Something which definitely does deserve celebrating this year...**the Toronto Field Naturalists is 85 years old!** This is a remarkable achievement for any organization, especially one that operates on a strictly voluntary basis. It speaks highly to both the aims and objectives of the TFN and the commitment and dedication of its members throughout its long history.

The board has been discussing a suitable celebration to mark this milestone. (My husband has cautioned me to refrain from using the catchy "Still alive at 85!") One idea we are pursuing is a Nature Arts Exhibit, possibly a show and sale, pending securing a suitable venue and the support of our nature arts members, past and present. We will keep you posted.

Another remarkable milestone to celebrate is the continuous publication of the TFN newsletter, eight times a year, for 70 years. I'm sure you will enjoy reading "From the Archives" which has excerpts from the first issue, edited by R.M. Saunders, and other early editions. Thanks to Sally Saunders (via Marg Catto) for donating her father's original copies of the newsletter along with several autographed editions of *Canadian Wildflowers* by Mary Ferguson and R.M. Saunders.

The newsletter is a beloved vital link that sustains the TFN but it is also challenging and time-consuming to publish. We owe a debt of gratitude to our editors, Jenny Bull and Wendy Rothwell; to their committee, Eva Davis, Karin Fawthrop, Nancy Fredenburg, Elisabeth Gladstone, Mary Lieberman, Joanne Lynes, Ruth Munson, Marilynn Murphy, Toshi Oikawa and Jan Sugerman; and to all of you who have sent in contributions throughout the years. Keep up the good work! Keep sending those letters, drawings, photos, and other observations of nature in Toronto.



Photograph of marsh marigold taken by R.M. Saunders. April 1970 © ROM

In December, TFN was invited to attend a meeting with Ontario Nature and the Conservation Foundation of Greater Toronto (an arm of the TRCA) to discuss a collaborative initiative to promote broader public engagement with nature in Toronto. (Hurrah!) The initial focus is on "Birds in Toronto" which will complement the City's "Lights Out Toronto" campaign and other bird related initiatives (see Newsletter #550, October 2007, page 15). Next month we will be able to give a more comprehensive report on the proposed programs and the partners that will be involved.

After the holiday hiatus, I am eagerly looking forward to the February 3 meeting and the lecture on Reptiles and Amphibians by Sid Daniels. I hope to see you there.

Best wishes for a happy, healthy, peaceful New Year.

Pinky Franklin

TFN BOARD NOMINATIONS INVITED

The TFN is looking for people with initiative who are willing to devote time to working as members of the Board of Directors. Please send your suggestions to the Chairman of the Nominating Committee, c/o TFN, 1519 - 2 Carlton St., Toronto, ON M5B 1J3. The report of the Committee will be published in the May newsletter.

OUTINGS REPORTS

Mount Pleasant Cemetery—December 4, 2007

Despite blustery winter weather and icy walking conditions, seven hardy TFN'ers joined me to tour one of the most densely populated yet quietest places in the city—Mount Pleasant Cemetery. I grew up near the cemetery and spent many hours playing and bird-watching among the tombstones. I like returning—remarkably little has changed in the past fifty years—I can still get lost amongst the winding roads.

Because the cemetery is a manicured landscape with little undergrowth or natural vegetation, it does not have a lot to offer winter birds. A serious birder may find the pickings slim but the cemetery does offer many diversions to a more general naturalist.

The leaves had only recently fallen so we could spot artifacts hidden during leafier times. These included a robin's nest (with diagnostic mud-lining), two paper wasp nests and several globular leaf nests—summer squirrel residences. In the fresh snow, squirrel tracks were much in evidence but something different had passed behind the Eaton monument. The large round imprints were only a few inches apart. What mammal has short legs and a deliberate walk? Perhaps one that doesn't have to worry about predators—a skunk!



Cedar Waxwing photographed by Norah Jancik

We observed several obese squirrels, some in the act of begging for food. A plump squirrel makes an easy target and filling meal for any passing Red-tailed Hawk—we observed two soaring overhead. Red-tailed Hawks have nested successfully in the cemetery for several years. We found a nest in a tall white pine—the adults should return by the end of February. There was

another Red-tail nest in a nearby pine—possibly an alternate nest built by the same pair.

Near the mausoleum we enjoyed close studies of a small flock of Cedar Waxwings gleaning berries from a juniper tree. Norah Jancik obtained some superb pictures of these handsome creatures.

Mount Pleasant Cemetery has some of the oldest and most magnificent white and red oaks in Toronto, many pre-dating the establishment of the cemetery in 1876. Although most had lost their leaves, one upright tree glowed a resplendent crimson against the snowy

backdrop. It bore a label—pin oak. But labels can be incorrect; I think that is the case here. The lack of side branches and the brilliant leaves lead me to believe this is a scarlet oak. And we saw it at its best!

George Bryant

OUTINGS REPORTS *continued on page 11*

NATURE RESERVES COMMITTEE

In response to the notice in a recent Newsletter we are delighted that several members volunteered to assist in the Nature Reserves Committee. The committee is composed of Jim Allan, Ernest Baltz, George Bryant (chair), Pinky Franklin and Barry Tocher. The committee looks forward to meeting in the spring to review management of our existing properties and the possibility of acquiring additional reserve land.

MONTHLY MEETING REPORT

Toronto Waterfront Projects and Natural Habitats, Sunday, December 2, 2007

Brenda Webster and James Roche, Waterfront Toronto

Few of us who braved the first serious snowfall of the winter on December 2 had previously understood the scale of current plans for Toronto's waterfront. Thanks to an excellent presentation by Brenda Webster and James Roche, members of Waterfront Toronto's planning staff, we all had a better idea by the end of the afternoon of the significance of the opportunity...and the size of the challenge...presented by one specific project, the proposal to create "Lake Ontario Park," a huge area of 925 acres that, if we are to understand its importance, should be compared with High Park at 398 acres or New York's Central Park at 840 acres. When completed the Park will stretch from Cherry Beach on the west to the R.C. Harris water treatment plant on the east, and will incorporate Tommy Thompson Park (a.k.a. Leslie Street Spit) and Ashbridge's Bay. But even citing the area doesn't really do the project justice because the length of the shoreline in the Park will be 37 kms, an astonishing figure which reflects the many bays and inlets of the Spit.

TFN members will be particularly interested in the fact that current plans propose that 50%, or 495 acres, will be habitat: lands that the plans term "wetlands, successional meadows, deciduous forest and swamp forest." In addition, another 345 acres will consist of playgrounds, beaches, open lawn areas, open meadow areas, paths, trails, boardwalks and piers. The final 15% (approximately 150 acres) will be devoted to boating facilities (50 acres) and to sports fields, multi-use fields and multi-use trails (100 acres).

The preceding paragraph describes the Park by its functions. It is also useful to note the geographical descriptions that Waterfront Toronto employs. First, there is a commitment to leaving the Spit other than the Baselands pretty much as it is, consistent with the Master Plan already approved for Tommy Thompson Park. They also view the existing Beaches area, from the R.C. Harris plant up to Ashbridge's Bay (but not including it) as requiring little change. They then assign names to the three planning areas that remain: the "Bar", the "Baselands" and the "Bay". The "Baselands" is the area between the Bar and the Bay at the base of the Spit; it runs north to a re-located Unwin Avenue that will be shifted further north, and south to the narrow neck of the Spit. The "Bar" is the strip between Unwin Ave. on the north and the water in the

Outer Harbour on the south from the Eastern Gap to the Baselands. The use of the term "Bar" for this area pays homage to the "Fisherman's Bar" of the 19th century, a sand bar that extended from the foot of Woodbine Ave to include all of the Toronto Islands until a storm in the 1850s opened the Eastern Gap separating the Toronto Islands from the mainland. The remaining bar and a bar on the east side of the harbour enclosed a huge wetland called Ashbridge's Bay, of which the north end of the existing Ashbridge's Bay is a tiny remnant. The "Bay" is the area from Ashbridge's Bay Park to the Baselands. These three areas, Bar, Bay and Baselands are the areas where the most important planning decisions will be made.

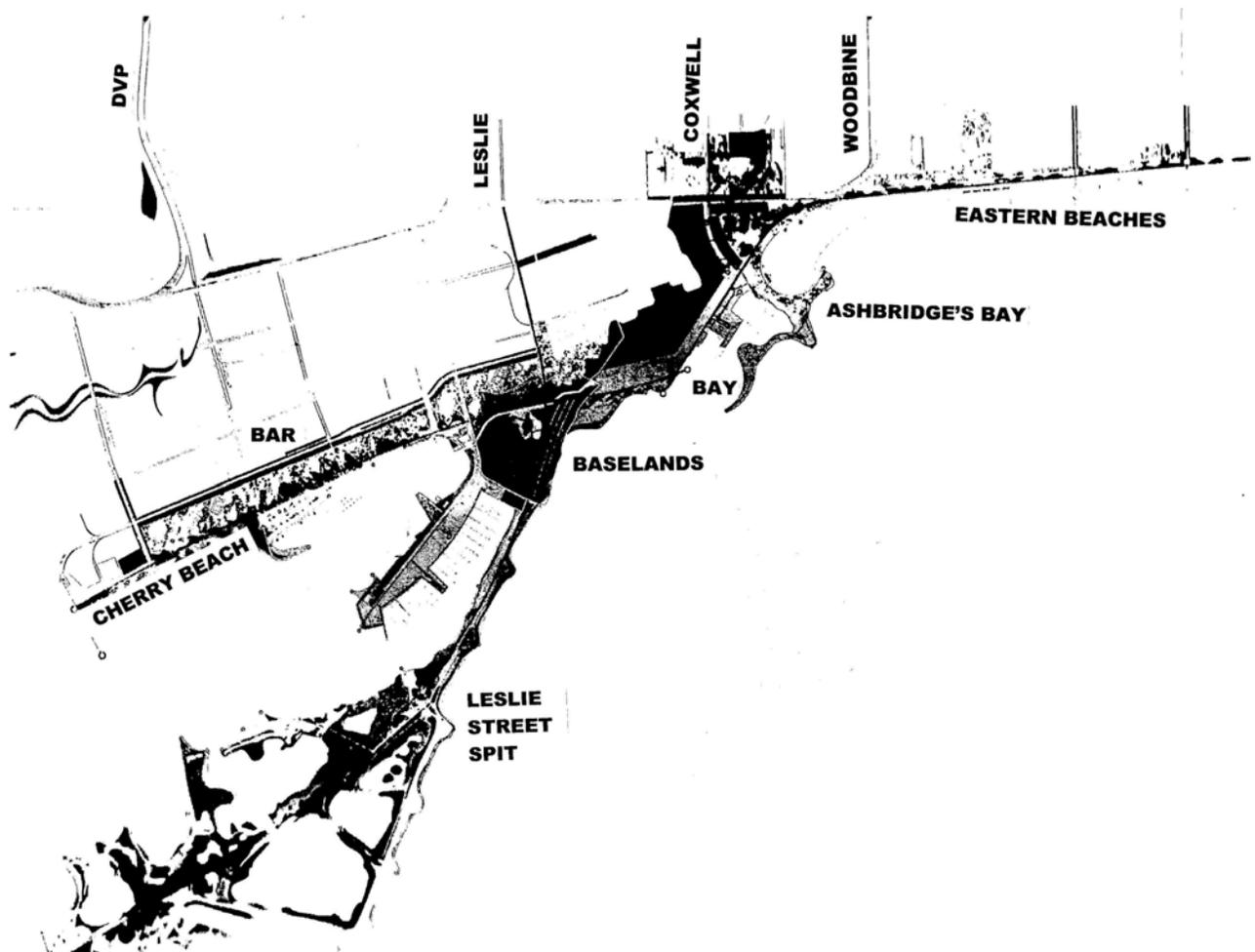
Following a lively question and answer session after the presentation on December 2, John Carley, co-chair of Friends of the Spit for two decades, and Dalton Shipway, one of the founders of "Bring Back the Don," spoke briefly on some outstanding issues. Dalton has been monitoring carefully the planning activity for the area outside the Park just north of the Bar, i.e. the land between the shipping channel, running north past the Keating Channel, to the Lower Don. He has urged the adoption of a new course for the Don River that would push the river south past the Keating Channel, past the ship channel and right to the Outer Harbour. He has made considerable progress, but current plans show the river curving west and discharging into Toronto Bay once it passes the Keating Channel. This issue will likely be decided eventually on questions of the feasibility and costs of alternative proposals for effective flood control. TFN supports the naturalization of the Lower Don and will continue to press for a "greenway" that allows wildlife to move along the Bar from the extended Don Valley to the Spit.

John Carley's principal concern is with a proposed "channel" slated to pass through the Baselands, linking the Bay with the Outer Harbour. The rationale for this "channel" is that it would act as an impediment to uncontrolled access to the Spit, and would provide an opportunity to "improve" habitat in the Baselands. It would also allow canoeists and kayakers to travel from Bay directly to Outer Harbour, instead of going out around the Spit. We don't have space in this article to list all of the objections that John makes to this

proposal, but they include damage to the natural habitat of the Baselands, release of contaminants in the soil into the water in the proposed channel, and permitting personal watercraft to disrupt the Baselands by travelling at high speed between Bay and Outer Harbour. TFN supports Friends of the Spit in their concerns with respect to the plans for the Baselands, and for the channel in particular.

Despite these outstanding issues, TFN agrees with Waterfront Toronto that Lake Ontario Park has the potential to be a "world class, signature park for the whole city." The alternative, piecemeal development

over many decades, would gradually eliminate virtually all natural habitat on the waterfront. We believe that TFN should support the approval and implementation of the substance of the Lake Ontario Plan. There will be many challenges before this is accomplished and it is important that TFN continue to be part of the process. We urge any TFN member who wishes to be involved in waterfront planning to contact Barry Mitchell, c/o the TFN office. We intend to establish a small group that will follow the planning for Lake Ontario Park, the Lower Don Lands and other areas controlled by Waterfront Toronto.



Update: In the week following the TFN lecture, Waterfront Toronto held meetings on December 4 (Bar), December 5 (Bay) and December 6 (Baselands). TFN was represented by Dalton Shipway at the first, Bob Kortright at the second and Barry Mitchell at the third. Representatives of Friends of the Spit, the Toronto Ornithological Club, several boating groups, and other citizen groups also attended these meetings. Significant progress was made in resolving a number of important issues at these meetings. We are currently studying the notes that resulted from the meetings and we will be submitting our views to Waterfront Toronto in the near future. A Master Plan for Lake Ontario Park should appear within the next few weeks. We will report further developments in the Newsletter later in the spring.

Barry Mitchell

LICHENS REFLECT ENVIRONMENTAL QUALITY

An article by Lynn Russell and Pat Stone, published in the Todmorden Mills Wildflower Preserve Newsletter, Spring 2007 (reprinted with permission)

An informal survey over the past year at the Todmorden Mills Wildflower Preserve revealed ten species of foliose lichens either on pieces of natural litter or on tree trunks. What does this mean? Should we be pleased there are so many or concerned there are so few?

Until recently lichens were largely ignored as part of our natural environment. Now, their unique properties are recognized as important to our ecosystems and useful to scientists as bioindicators of environmental quality.

What are lichens? They are not plants, like the mosses with which they are commonly confused, but are a unique combination of organisms: normally a green alga (and/or cyanobacteria) and a lichen-producing fungus. Neither the algae nor the fungi would thrive, or even survive, without the other, but together they combine to form tens of thousands of lichen species of incredible diversity in appearance and habitat worldwide. Fungi, lacking chlorophyll, cannot make their own food. In lichens, the algae, through photosynthesis, produce carbohydrates for the fungi and, in return, are provided with a protected place to live.

Although fossil records are scarce, lichens are thought to be one of the earliest organisms to colonize dry land. The oldest lichen fossil is from Scotland and dates at about 400 million years. Lichens have colonized every region of the earth except water. In places such as the arctic tundra, they form a significant percentage of the ecosystem's biomass. There, Reindeer Moss, a lichen often mistaken for a moss, is the preferred food of ungulates such as caribou. Currently, however, the major importance of lichens for humans is in the surveying and monitoring of environmental quality – particularly air pollution.

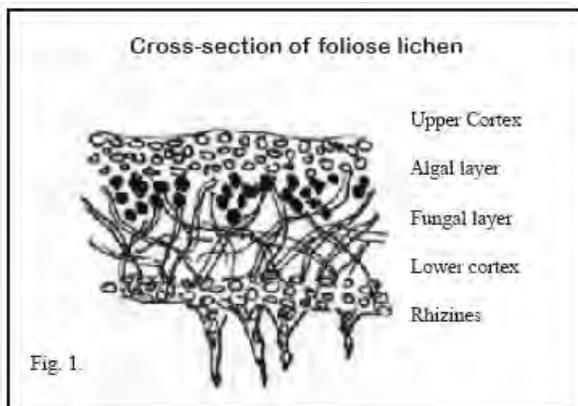
Lichens have no roots to absorb water and nutrients from the soil and no protective outer coating such as the cuticle of leaves. The rhizines of a typical leafy

(foliose) lichen, for instance, are purely for attachment (Fig. 1). Its fungal partner develops a thick outer cortex that protects the algal layer underneath. This layer is not impervious to the elements, however, and moisture and gases readily pass through it. It also has many cracks and holes through which atmospheric particulate matter can easily penetrate to the inner fungal layer. Thus, while lichens receive the water and carbon dioxide required for photosynthesis from rain water or the atmosphere, they also readily accumulate whatever else is present there (e.g. sulphur dioxide from fossil fuels or particulate matter like dust and heavy metals).

The sensitivity of lichens to the degradation of air quality was recognized early in the 19th century and, in Europe, they have been used to monitor atmospheric pollution for over 100 years. The degree of sensitivity, however, varies among species. Some have no tolerance for the pollutants and die in their presence; others tolerate some pollutants but become stunted in growth. In heavily polluted urban areas, lichens may disappear altogether.

On the one hand, this range of sensitivities to different pollutants is one of the advantages that lichens have over other types of monitoring tools. They also stay put, don't drop their leaves in winter, are found everywhere, live long, and are cheaper than machines. On the other hand, there are some disadvantages.

Confounding variables such as climate changes and habitat alterations may contribute to changes in lichen abundance or health. A lack of standardization of both qualitative and quantitative techniques makes generalization across studies difficult. Laboratory analysis of accumulated material, like heavy metals, is expensive and not widely available. It is also not yet clear which compounds are important to monitor. They may be location and lichen specific. Nevertheless, valuable information has been obtained in Europe and is beginning to be collected in Canada.



Credit: Pat Stone

Table 1. Foliose Lichens Collected at Todmorden Mills

Candleflame lichen	<i>Candelaria concolor</i>
Powdery goldspeck lichen	<i>Candelariella efflorescens</i>
Hammered shield lichen	<i>Parmelia sulcata</i>
Orange-cored shadow lichen	<i>Phaeophyscia rubropulchra</i>
Hooded rosette lichen	<i>Physcia adscendens</i>
Hoary rosette lichen	<i>Physcia aipolia</i>
Powder-tipped rosette lichen	<i>Physcia dubia</i>
Mealy rosette lichen	<i>Physcia millegrana</i>
Bottlebrush frost lichen	<i>Physconia detersa</i>
Hooded sunburst lichen	<i>Zanthoria fallax</i>

An initial survey, such as we did at Todmorden, can reveal simply the presence or absence of lichen species, their relative abundance, and their state of health such as the presence or absence of reproductive structures. Regular, long-term monitoring of these factors might indicate if, and how – for better or worse – the local environment is changing. In our Todmorden survey, some of the species were very

difficult to find, since they were stunted and present in small amounts. So, while we may perhaps be pleased to find ten foliose lichens at Todmorden, we should not be complacent about their future. Lichens, like other organisms, are under survival stress from environmental degradation and habitat destruction. We do not want Todmorden to become a lichen desert.

Sources: Purvis, W. 2000. *Lichens*

Brodo, I.M., S.D. Sharnoff and S. Sharnoff. 2001. *Lichens of North America* and the website: www.lichen.com
Deacon, J. *The Microbial World: Lichens* www.helios.bto.ed.ac.uk/bto/microbes/lichens

Lichen Growth Forms

Like other organisms, lichens are formally classified as species based on their genetic relationships or ancestry. Informally, though, they are grouped roughly according to growth forms, physical appearance rather than genetic make-up:

Foliose: These tend to have leafy, lobed layers. Some are tolerant to pollutants

Fruticose: These tend to be more stalky, bushy, and particularly sensitive to pollutants.

Crustose: These cover rocks, tree trunks, and other surfaces somewhat like a tight crust.

Squamulose: These appear like patches of small scales.

Todmorden Mills Wildflower Preserve

Todmorden Mills Wildflower Preserve was established in 1991 following discussions between Charles Sauriol, the well-known conservationist, and Dave Money, past president of the Ontario Horticultural Society. Located on the grounds of the Todmorden Mills Museum on Pottery Road just below Broadview Ave., the preserve occupies 9.2 hectares of diverse habitats including deciduous forest, wetlands, a pond and meadows.

TMWP is a charitable organization that works with volunteers and partners on a variety of activities and projects at the site. Membership is free and includes a newsletter and invitations to events. Todmorden Mills Wildflower Preserve, 283 Danforth Ave., Suite 488, Toronto M4K 1N2. Phone: 416-423-1504. Email: tmwp@hopscotch.ca

Extracts from Outings Leaders' Reports

Ashbridges Bay. Nov. 20. Leader: Doug Paton. ...Carol Sellers spotted the bird-of-the-day: a chat, which we all got to see. For many people it was a lifer ...

Ashbridges Bay. Nov. 24. Leader: Bob Kortright. We focused initially on re-finding the Yellow-breasted Chat found on Nov. 20. It was much more difficult to see, perhaps because of the number of birders that have been looking for it over the last 4 days, perhaps because of the colder weather (-8° on Nov. 23). All were interested to hear of plans to fill in the Coatsworth Cut with marsh to provide stormwater treatment and to enhance the landscape of the Ashbridge's Bay sewage treatment plant with a path along the eastern and southern edge and a bridge between Ashbridge's Bay Park and the Leslie St. Spit.

Prospect Cemetery. Nov. 25. Leader: Pleasance Crawford. This cemetery, opened in 1890, has many fine tree specimens including huge native red and burr oaks and European beeches and hornbeams. We were concerned about the wellbeing of the huge old *Fagus sylvatica* 'Cuprea' immediately north of the new Mausoleum of the Sacred Souls. It was poorly protected during construction of this building, which encroached on its root zone – as does a new parking pad.

Nesbitt Ravine. Nov. 28. Leader: Roger Powley. ...The coyote and the white-tailed deer that we saw in the ravine were very close to each other.

Toronto Island. Dec. 16 and Jan. 1. Leader: Ian Wheel (Lost Rivers and Urban Ecology Walks). In 1857, storms began the creation of the channel that now separates Toronto Island from the mainland. A final storm in April 1858 completed the task, establishing the Eastern Gap. On both these walks to celebrate the 150th anniversary of this event, participants braved extreme weather conditions including snow, wind and cold.

SLIME MOULDS

Slime moulds – the Myxomycota – are not really fungi. Not really plants. Not really animals. They are placed in the Kingdom Protocista. They are composed of only one large cell lacking both nervous system and eyes. Yet they can move, navigate and avoid obstacles. There are roughly 1,000 species, and they have 13 sexes, 12 of them male. And they do indeed move – barely perceptibly – at the rate of some half inch an hour. They live unseen lives inside old logs or under the leaf debris on the forest floor, and it is only when their food source becomes exhausted or they are ready to fruit that they travel, mostly in the cool of the night. The cells aggregate to form a “plasmodium,” a quivering mass of protoplasm which creeps over organic matter, consuming various micro-organisms such as bacteria and fungal spores.

From what I have read, the lowest cellular entity requires at least two brain cells to be capable of locomotion. Yet *Physarum polycephalum*, a one-celled slime mould, has been known to find its way through a maze, no less, in order to reach its favourite meal – oat flakes! I recall the hugely informative Jack Parkin of the Toronto Mycological Society saying how he had observed a slime mould travel from one end of a long log to the other in the course of a few days and how much he regretted not having thought to photograph its daily progress.

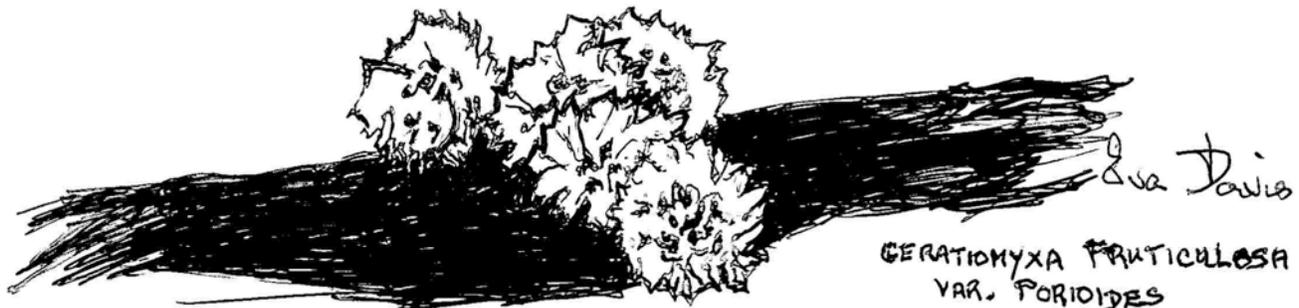
On the world stage, a massive slime mould made the news in 1993, in China in the north western province of Shaanxi. It weighed 77 lbs and gained 22 lbs within three days. There was, alas, no follow-up on its further behaviour.

Mushroom guides are not exactly plentiful and those I have leafed through have either made no reference, or a very brief reference, to slime moulds and then moved briskly along. Not so George Barron* who devotes 14 pages to them, complete with truly beautiful photographs, and even recommends a book, *How to Know the True Slime Moulds* by Marie Farr. Most outdoor folk will have come across at least a couple of specimens whether they know it or not. The most likely is *Fuligo septica*, resembling inviting golden pancakes flung haphazardly about on the forest floor. The second is the lovely *Lycogala epidendrum*, looking like a scattering of deep coral droplets on elderly, decaying logs. If one of the tiny blobs is pressed, it will exude a rich pink juice. I have in my northern travels been lucky enough to discover the exquisite white “flowers” of *Ceratiomyxa fruticulosa*.

Slime mould is an unfortunate name. However scientifically accurate, these creatures neither look like moulds nor look particularly slimy. Nature is, indeed, endlessly creative and slime moulds are amongst her most delightful inventions.

Eva Davis

**Mushrooms of Ontario and Eastern Canada* by George Barron, Lone Pine Publishing, 1999.



Algonquin Provincial Park is looking for talented and mature youths (at least 16 by June 2008) to join their team as Seasonal Park Naturalists in summer 2008. For more information, visit their seasonal employment website: www.algonquinpark.on.ca/geninfo/jobs.html.

FROG HIBERNATION – FREEZE-TOLERANT FROGS

An article by Margo Holt from *Ermine*, newsletter of The Orillia Naturalists' Club, May 2007 (reprinted with permission)

American Toads dig into soft soil with their hind feet to below the frost line (1 meter or more) and hibernate in burrows at a temperature of 1°C to 2°C, which is then the toad's body temperature. No freezing required for this strategy. Some frogs take advantage of hibernating along stream banks and seepage areas where temperatures are not likely to drop below freezing. Also some frogs burrow into the soft mud of pond bottoms to escape freezing.

Land hibernating frogs use a scant cover of leaf litter under the snow cover to pass the winter. These frogs have no way to escape the cold; they are unable to generate any heat on their own; thus they must acquire some ability to withstand freezing. There are 4 species of land hibernating frogs in our area: Spring Peeper, Chorus Frog, Gray Tree Frog and Wood Frog, and these species have been identified as freeze-tolerant.

Freezing in land hibernating frogs is normally initiated at about -2°C to -3°C. The most common cryoprotectant (antifreeze) in frogs is the sugar glucose (glycerol in Gray Tree Frogs). Glucose levels show no increase until the frog's body temperature drops below the supercooling* point and ice actually begins to form in the frog; then suddenly glycogen in the liver is rapidly converted to glucose, and glucose is dumped at an extraordinary rate into the frog's bloodstream. Also the frog shows a remarkable heart rate change in response to freezing. Within one minute of extracellular ice nucleation**, the heartbeat has been seen to double. This cardiac response (rapid heartbeat) is associated with a sudden increase in body temperature from the release of latent heat of ice

nucleation. Body temperature and heart rate both peak quickly after spontaneous ice nucleation. Glucose is rapidly transported to all the frog's cells and they become packed with glucose which acts as an antifreeze to prevent the cells from freezing. In freeze-tolerant frogs, there is extensive ice formation in the body cavity and in the spaces between the cells (up to 65% of the total body water may be ice) but no ice crystal formation occurs within the cells themselves of survivors. The jagged ice crystals would puncture the cell membrane causing their rupture and death. Twenty hours or less after the ice nucleation and with an ice content of 60% to 65%, the heart stops, breathing ceases, and the frog teeters on the very edge of life. It is kept alive by the almost imperceptible anaerobic metabolism of its energy stores and by the cryoprotectant (antifreeze) action of glucose (glycerol

in Gray Tree Frog) in the cells.

The margin between the ambient temperature in the leaf litter hibernaculum and the frog's lethal low temperature is slim, for no frogs have been found to survive below -7°C to -8°C. Thus, a good snow cover is of paramount importance. The

terrestrially hibernating frogs can slip in and out of the

frozen state quickly. Within an hour after thawing, the heart resumes beating, and six hours later, at a temperature of only 5°C, the heart rate may be back to normal. This is an adaptation to early spring breeding, when temperatures fluctuate across the freezing point. The ability of frozen bodies to revive upon thawing is a miraculous feat. The land hibernating frogs do it routinely. Lowly creatures indeed!



Gray Tree Frog drawn by Eva Davis

* Supercooled: having a temperature below the normal freezing point of that substance without ice formation occurring

** Ice Nucleation: the induction of ice formation around any small particle that may serve as a nucleus for crystal growth

Sources:

Heinrich, B. 2000. *Winter World – the ingenuity of animal survival*. HarperCollins, New York, NY.

Marchand, P.J. 1996. *Life in the Cold – An Introduction to Winter Ecology*. University Press of New England, Hanover, NH.

ARE ONTARIO'S PLANS FOR GROWTH SUSTAINABLE?

We noted in the September issue of the Newsletter that provincial growth projections trigger expansion of regional and municipal infrastructure. We used the Big Pipe as an example, but we also mentioned that new highways, homes, schools, local industry, retail space, health services, etc. will all be built on land that is presently "green". Unchecked and unplanned growth will destroy Ontario's green spaces.

Now Gord Miller, Ontario's Environmental Commissioner, has focused on this issue in his recently released 2006/2007 annual report, "Reconciling our Priorities." Miller says that "we are trying to have our cake and eat it too" and notes the "conflict between our efforts to plan for economic growth and development while simultaneously protecting our environment."

In some areas in Southern Ontario the province's growth plan "would exceed the ability of the local environment to support it." And in the North, "... many proposed activities and development are going ahead in the absence of any overall planning mechanism."

TFN members have been made aware by presentations at our lectures of the consequences for songbirds and for caribou of unplanned growth in the North. It is important that TFN support Mr. Miller's report and ask the government to explain how it is going to reconcile its growth plans with protection of our natural environment.

For the full 2006/2007 annual report and the Commissioner's Remarks, go to: www.eco.on.ca

Barry Mitchell

The Richmond Hill Naturalists recently reported in *The Bulletin* (October 2007) that the big pipe may be extended through Bob Hunter Memorial Park – a park created to honour Bob Hunter as an environmental hero. "Before he died in 2005, Bob Hunter did City-TV stories on the terrible environmental folly of the pipe."

FOR READING

Tree – A Life Story by David Suzuki and Wayne Grady with Art by Robert Bateman, published by Greystone Books, 2004. 100 pages. \$18.95 (paperback)

I can't think of a more enjoyable way to learn science than by reading this fascinating book. Using the life story of a single Douglas-fir as their central theme, the writers take us on a far-reaching journey: how trees evolved, the inner workings of a tree as it grows from seed, nourishing, protecting and reproducing itself; communities of trees within a forest, and the critical role of trees in the environment. There are digressions to tell us about plants, fungi, mammals, birds, insects, and even fish which inter-relate with the tree. We learn about genetics, chemistry, biology, the history of botany, and much more. From the opening drama of a forest fire to the moving account of the great tree's demise after five hundred years, this book gripped my attention with its fascinating revelations, beautiful prose and, to top it off, Robert Bateman's lovely illustrations.

Wendy Rothwell

RECENTLY RELEASED: *The Natural Treasures of Carolinian Canada: Discovering the rich natural diversity of Ontario's Southwestern heartland* by The Carolinian Canada Coalition, edited by Lorraine Johnson, published by James Lorimer & Co. Ltd., 2007. \$39.95.

"Sweeping from Toronto to Lake Huron and Lake Erie is a region of biological richness unmatched in Canada. Here the native trees have unusual names – Sassafras, Cucumber Magnolia, Tulip-tree, Pawpaw – and evoke the distinctly southern character for which the region is named...."

Late afternoon snow
Flakes soft and white floating down
Dawn's drifts bar my door



Haiku by Elisabeth Gladstone

REMEMBERING PETER HARE

Peter John Hare, a long standing member of the Toronto Field Naturalists and Lost Rivers Project, passed away on Thursday, November 29, 2007 at age 82.

Over 12 years, I came to know Peter as a person who was very modest, very committed, intellectually gifted, and with an encyclopaedic knowledge of Toronto's natural history and human heritage. Thankfully, much of his knowledge has been left to us in the form of the Lost Rivers website, which is widely respected and referred to. One expert on the internet told us that it was the best website he had ever seen, because of its excellent organisation and depth of information. High praise indeed, especially since Peter began work on the site in his very late 70's, and taught himself HTML to be able to create the site.

Peter was an exceptional, energetic man, who worked tirelessly for various environmental groups around the city. He sat on the Public Advisory Committee for the Remedial Action Plan, on the Don Council, on the Task Force to Bring Back the Don, on the Wet Weather Flow Public Advisory Committee, and the Ontario Forestry Association as well as the Senior Alumni Association of the University of Toronto and the Soldiers' Tower Committee of U of T. He was utterly reliable, as steady as a rock, and was a main anchor for Lost Rivers after 2002. In 2003 Lost Rivers was nominated for a Heritage Toronto Award of Excellence in the Media Communications Category for Peter's website, and received the Award of Excellence in the Organization Category. Peter was recognized by the Green Community as Volunteer of the Decade, and twice as Volunteer of the Year.

Peter cared very much about family, and was a devoted husband. He went to school at University of Toronto Schools, spent a very short time in the army



Peter Hare leading a Lost Rivers Walk

at the end of WW2, studied forestry at U of T, and also had a great interest in geology. In his work life, he spent some time in Northern Ontario working for the Ministry of Natural Resources, and later had a tree farm. His career as an environmentalist began when he returned to live in Toronto about 25 years ago.

I will remember Peter for his dedication, commitment, his extraordinarily good mind – and a tremendous zest for life. One enduring memory is the sight of Peter, at the end of a fairly gruelling Lost Rivers walk, heading off into a ravine to explore more of Walmsley Brook – as nimble and light on his feet as a mountain goat at about age 79. Peter was the quintessential field naturalist, a scientist of a curious exploring nature, in direct “conversation” with the world around him, who did everything he could to contribute solutions to the deep environmental problems with which we are faced.

In memoriam, donations to the Soldiers' Tower Committee of U of T or to the charity of your choice would be appreciated.

Helen Mills

DIANA BANVILLE

We have just received the sad news that Diana Banville passed away on January 5, after suffering a stroke. Diana was a valuable contributor to the Toronto Field Naturalists over four decades and will be greatly missed. We will be Remembering Diana Banville in the March newsletter.

Ed.

KEEPING IN TOUCH

As a long time member of the TFN I'd like to share this thought.

I don't lead as many walks as I once did, but when I have in the last few years, I have been pleased to see many new faces. Several were there because they had seen our advertisements in Toronto publications and, with the new trend toward environmental awareness, had decided to see how we address the issues of the preservation of Toronto's natural history. Some, of course, were there just to be on a walk with a group, in a place in Toronto they hadn't seen before. In any case, in trying to make these people feel welcome, I attempted to find out their motivation for joining us that day. In doing so, I have been quite surprised at the level of awareness most demonstrate and at their willingness to participate. Then again, I once enjoyed having to come up with a convincing argument as to why it was not a good idea to pick wild flowers that were flourishing in one of the last refuges they had in the city. I think I got through... to the delight of the plants no doubt... and myself.

Whatever their level of awareness of natural issues, these newcomers have made a choice to see nature as we do. Hopefully, with a bit of encouragement, they will try to make a positive difference in their own way – a benefit to us all.

I would like to encourage all members, on every walk they are on, to have a chat with any new person with the hope that they decide to become a member. It would help the club tremendously. I try to explain the benefits of membership without making it a sales pitch, mentioning the newsletter, TFN's involvement with local environmental issues, the nature reserves, the personal satisfaction I have felt by volunteering... the things they would gain for such a small cost. Remember, we are our best (if not only) promoters, so this is important.

So many people feel totally helpless when it comes to "saving the environment" but really *want* to do something. Sometimes their first step is to seek out organizations like the TFN (there are others) and take that first step by going on a walk. Of course, no one person can "save the environment," but with a bit of encouragement and explanation of how *we* feel we are making a contribution, I think others may follow in an attempt to make a contribution in the ways that they can, hopefully as members of the TFN, and because they have been made to feel welcome by us and have recognized our commitment. That's how I felt 22 years ago when I joined.

Ken Cook

I saw an opossum in G. Ross Lord Park at 10:30 am on Tuesday, December 25, 2007. The sky was overcast and the temperature a bit above freezing. Two men on a paved road were looking at something, so I looked too. At first we thought it was a cat. It approached to within about 30 feet of us and stopped, as if waiting for us to go away so it could cross the road. It was obviously an opossum and not a cat. Several people walked by, some with large dogs (that didn't look or act aggressive), as the opossum continued to watch us. After about 10 minutes, the humans got bored and left.

Sandy Cappell

Jim Allan wrote to Mayor David Miller on November 16: "On Tuesday, November 13, I had the opportunity to visit Snake Island and the adjacent Snug Harbour Islands area, over on Toronto Islands. The water level is now so low there, perhaps the lowest it may be for decades, that a large area of the shoreline is exposed. This is a unique opportunity for a crew ...to go in and completely clean up the area, both on the land and on what was formerly under water. There are masses of old plastic, tires, bottles, junk, fallen trees, etc., that can now be cleaned up in a way that will be difficult and impractical once the water level rises again. The area is of such pristine beauty, so close to urban Toronto, that to miss this opportunity would indeed be a great pity."

Warren Hoselton, Parks Supervisor, Toronto Island replied: "I am in full agreement that the low water levels provide an excellent opportunity for an extensive clean-up. I will indeed assess this area and direct staff to clean up when weather permits. Thanks for your keen interest."



Domestic Geese on Centre Island, Summer 2007.
Photo by Susan Weiss.

I made some wonderful discoveries this fall on TFN outings and on my own. In the Brickworks I saw a flock of bluebirds and a muskrat one day, and on other days I found a katydid and saw a deer. In Nesbitt Ravine, I discovered a few bitternut hickory trees and a blooming helleborine orchid.

I often go on outings that I am not leading and have been lucky in discovering weird and wonderful things. On Doug Paton's walks we always find great things, like the chat we saw at Ashbridge's Bay or the Brant goose we found on his Island walk. It was just sitting on the grass at the ferry docks. I also noticed things like the patch of cord grass on Algonquin Island which many people pass without knowing it is something unusual. It is a remnant of the tall grass prairie. On Jenny Bull's walk we watched a beaver feeding in a canal a few feet from us. I went to the Humber Arboretum hike led by Carol Sellers where I saw a mink and a shadow darter dragonfly.

They will soon be opening the Beltline over to Mount Pleasant. As I write, only a few things are not complete like the railing on the stairs leading up to the road. I was happy to see they have planted some native trees like the hemlocks on the south hillside.

Roger Powley

While looking at the Picture Gallery in TFN's website, I saw a photo

of a green grasshopper I did not recognize. It was photographed by Margaret McRae at Eglinton Flats, Humber on



July 24, 2007. Upon looking through the Kaufman field guide, I found that the picture was of a female ebony grasshopper (*Boopidon nubilum*).

I didn't think too much about this until I looked this species up on the internet. The range map was of the southwest United States. It apparently likes the short grass prairies of Oklahoma and the surrounding states. If my identification is correct, this species is far out of its normal range. Another surprise was that the female has not been seen to fly great distances, if at all. The male is much more mobile. It was also a surprise that

the sexual dimorphism is so prominent in this grasshopper. The male is much smaller than the female and is black, not green. I would like a specialist on Orthoptera to look at the picture and see if there are other possibilities as to the identification of this insect. It could possibly have hitched a ride on a truck or other vehicle to come to Toronto, but it also may be expanding its range because of global warming. I wonder what the latest data is on this species, as the internet may be dated. We often find birds that are from distant places, but they are much better fliers than grasshoppers. I always like to discover things I don't know, but this discovery almost went unnoticed.

Roger Powley

On January 2, a gloriously sunny but bitterly cold day, I spent a delightful time checking out the birds at Humber Bay Park East. Among the usual winter waterfowl, I was surprised to see a dozen or so Northern Shovelers. I don't recall seeing them in the winter before and, according to the numerous field guides I checked, they aren't supposed to be anywhere near here at this time of year. Am I correct to think this is unusual?

Wendy Rothwell

I am sending a picture of a tiny flower which grows on window glass, steel, plastic and almost any surface. According to Dayeyun.com, the flowers are now reported all over Asia, from Korea to Australia. Anyone in TFN know what this is?

Eric Lin

Ed. This is a slime mould. See article on page 12.

Since Bridget Stutchbury's talk on November 4, I have been doing some research on where to buy shade-grown coffee. Kicking Horse Coffee has a web site, www.kickinghorsecoffee.com, with a "Where to Buy" section. Enter your postal code to find your 10 closest grocery stores that sell their coffee. If Kicking Horse Coffee isn't already available in your area, ask for it by name at your local store.

Frances Money

Ed: See a so B rds and Beans at 2413 Lakeshore B vd. W. (416-913-9221). The r webs te, b rdsandbeans.ca, states: "a of the raw coffee we purchase s cert f ed Organ c, Shade Grown and s fa y traded." C ck on Shopp ng and Reta Locat ons to f nd a reta er c ose to home, or order on ne.

KEEPING IN TOUCH *continued on next page.*

Lambton Woods is a small area, on the west bank of the Humber, south of and adjacent to James Gardens. Its east side has a paved bicycle/pedestrian trail and other pedestrian trails, all heavily utilized by local residents. To the west there are extensive areas of dense



thickets/forest developed on wet organic soils and a small higher area of conifer forest with little understory vegetation. There are no established

trails in the thicket areas. Lambton Woods and southwestern James Gardens have extensive areas of skunk cabbage and, locally, other spring wildflowers including, in Lambton Woods, the locally rare white "trout" lily (*Erythronium albidum*) and sharp-leaved hepatica (now re-classified as *Anemone acutilobea*).

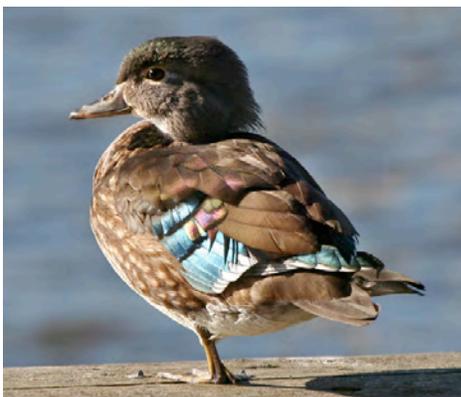
In late April 2007, my wife Frances and I made a botanizing visit to this area. A distant flash of white caught our eyes and on going closer we saw it was a white Eastern Gray Squirrel. We returned in early May and saw two such squirrels. They are albinos, lacking any eye or other pigment. Toronto has a high proportion of dark-furred (melanistic) "gray" squirrels but albinos are rare here as elsewhere.

We sat quietly for a long time in an area of conifer forest, near the margin of a wet thicket, observing



chipmunks and both red and gray squirrels. In late afternoon a raccoon appeared. He dined on peanuts some local residents had left and then disappeared. Shortly after, a red fox arrived on the scene and ate peanuts missed by the raccoon. The fox was certainly aware of our presence but did not seem much disturbed by it. At dusk two deer passed through the area quickly and silently, capping what was by far the best day of mammal viewing we've ever had in Toronto, doubly surprising because of the large number of people who frequent Lambton Woods.

Peter Money



Norah Jancik took these photos of a young Wood Duck at Ashbridge's Bay on November 13, 2007, an American Kestrel clutching a snake at Toronto Brickworks on November 13, 2007, and a Rose-Breasted Grosbeak at the Toronto Brickworks on September 7, 2007.



IN THE NEWS

TFN in the National Post

The TFN and outings leader Roger Powley were the subject of an article in *The National Post* on December 1. The reporter, David Hamilton, had participated in Roger's TFN outing in and around High Park, and wrote that Roger was "one of about 80 colourful characters" leading TFN walks. Titled "Do you believe

in minerals," the article described some of the features of Roger's walk, including a look at the mineral baths in High Park and how to identify a sassafras. To read the entire article, go to www.nationalpost.com and enter "Roger Powley" in the search box.

Tree-cutting in Mount Pleasant Cemetery

Several members noted newspaper articles on tree cutting at Mount Pleasant Cemetery in December. An article in the National Post on December 18 reported that 39 trees were to be cut to make way for a new

visitation center and parking lot. The group that runs the cemetery says that 97 trees will be planted. It was reported that "the City rejected the project but the Ontario Municipal Board approved it."

Emerald ash borer confirmed in Toronto

A press release from The Canadian Food Inspection Agency, Dec. 4, 2007.

The Canadian Food Inspection Agency (CFIA) has confirmed the presence of the emerald ash borer (EAB) in Toronto. The infested trees were detected by Ontario Ministry of Natural Resources staff in the vicinity of Sheppard Avenue East and Highway 404. This is the first find of the pest in the Toronto area.

This beetle is an invasive alien species and poses a significant threat to our forests and forest industries. The CFIA is surveying to determine the extent of infestation in the area. The pest is currently in its dormant period and will not spread naturally during the winter months. Tree removal is not considered an effective tool for the control of EAB. However, some trees may be removed in collaboration with Natural Resources Canada–Canadian Forest Service for research purposes. Affected property owners will be eligible for compensation under the Introduced Forest Pest Compensation Regulations.

Restrictions on the movement of all firewood and ash tree materials will be implemented on properties within a five-kilometre radius from where EAB was detected. This is necessary to stop the movement of potentially

infested materials that may harbour the insect. EAB is generally spread through the movement of infested firewood, nursery stock and forest products. Affected property owners will be notified of these restrictions by the CFIA. Trees, nursery stock, logs, lumber, wood packaging, wood or bark, wood chips or bark chips of ash trees (*Fraxinus*), as well as firewood of all species, will be regulated for EAB.

EAB has previously been confirmed in the Municipality of Chatham-Kent as well as Essex, Elgin, Lambton, Middlesex and Norfolk counties. Regulated areas have been implemented in these areas to control the movement of potentially infested materials and slow the spread of the pest to new areas. The CFIA will continue to work with its partners and stakeholders toward the goal of slowing the spread of this destructive pest.



Emerald ash borer from the CFIA website.

Additional information on the emerald ash borer and other invasive alien species is available at www.inspection.gc.ca or by calling 1-866-463-6017.

IN THE NEWS *continued from page 19.*

Don River still polluted, but shows signs of recovery

Extracted from an article by Mike Adler, Dec. 17, 2007. Courtesy *Scarborough Mirror* and *InsideToronto.com*.

The Don River may not be as filthy as it was a generation ago, but it's still highly polluted. The Don was just confirmed as the most polluted river in Ontario by an Environment Canada survey. The highly urbanized Don scored a rating of "poor," 34.8 out of 100 on the federal Canadian Environmental Sustainability Index. The Humber, by contrast, got a "marginal" 60.2 and the Credit River a "good" 90.5. And yet on hearing the news this week, Dalton Shipway, who has fought on the Don's behalf for two decades, said he's optimistic about its future. The City and the Toronto and Region Conservation Authority are working on a plan to replace the artificial Keating Channel with a natural river mouth for the Don at Lake Ontario. Next year, the City will launch environmental studies on two major projects to intercept sewage before it flows from aging sewers into the river during storms. With barriers to fish removed, salmon are swimming up the Don as far north as Markham. People who held a mock funeral for the Don 20 years ago would have been surprised at such progress, said James

McArthur, executive director of Friends of the Don East. "I'm fairly positive we're going in the right direction but not quickly enough," he said.

A volunteer group called the Taylor Massey Project hailed the survey as a great tool that will allow people to easily compare the health of watercourses. But founding chairperson Andrew McCammon said 80% of pollutants may be coming from Taylor Massey Creek.

While the Don's poor condition is disappointing, Councillor Paula Fletcher asked residents to imagine what the river would be like without people "taking up the cudgels" for its rehabilitation 20 or 25 years ago. "Are we going fast enough? No." Though "the task is an enormous one," McArthur said the City can bring back the Don by shading the river and taking it out of concrete channels. Residents can help by disconnecting downspouts, using less salt and replacing asphalt driveways with permeable surfaces.

Health of Humber River Watershed Shows Little Sign of Improvement

From a Toronto and Region Conservation Authority (TRCA) media release, 1 Nov. 2007.

According to a "report card" issued by TRCA and the Humber Watershed Alliance, the health of the Humber watershed faces serious challenges. Since the last report card seven years ago, the 26 variables studied to gauge the health of the Humber River watershed suggest it to be in average condition. Overall, the health of the Humber continues to come under significant stress from new urban growth, increased population, additional traffic, and greater demand on greenspace for a variety of uses.

Only 15% of the urban area has stormwater quantity controls and there have been no improvements in bacteria levels. There were 900 oil spills and 750 chemical spills in a 6-year period. Fish surveys indicated 57% of stations saw a decline in habitat quality. The organizations feel there is not enough investment in environmental protection and restoration, and public awareness is low when it comes to the problems and what needs to be done by everyone to improve the situation.

The situation is not, however, without hope. The report card acknowledges significant protection of the upper reaches of the Humber as a result of new strategic plans such as the Oak Ridges Moraine Conservation Plan, Greenbelt Plan and Ontario Regulation 166/06. Sixty-one per cent of the watercourses have streamside natural vegetation such as trees and meadows to protect water quality and habitat for fish and other wildlife. An additional 28 km of trails that have been built since 2000.

The Humber River watershed, the largest in TRCA's 2,500-square-kilometre jurisdiction, has provided a home for human communities for more than 10 thousand years. More than 670,000 people live, travel to work, or pursue recreational activities in the Humber River watershed. The area's population is predicted to grow to more than one million people by 2021, making it everyone's responsibility to help protect, restore and celebrate the Humber as a Canadian Heritage River.

For additional information and to view a copy of the complete report card, visit www.trca.on.ca. The Humber Watershed Alliance was established in 1997 as a community based group of residents, interest groups, education institutions, and government agencies, municipal partners from across the watershed, and the chair of TRCA. The next report will be released in 2012.

FROM THE ARCHIVES

The following extracts are from the first and last paragraphs of TFN Newsletter no. 1, September 1938, by Richard M. Saunders, Newsletter editor from 1938 to 1965.

Did you hear about the discovery of the yellow rail's nest in June by a member of this society? For the first time in bird history in Canada a nest of this rarely seen little rail was found on June 12 at Holland Marsh by O. E. Devitt. A few days previous to the find, one of the rails became so excited by an imitation of its song (like the clicking of two pebbles together) that it settled on F. H. Emery's coat lapel, and allowed itself to be picked up.

What have you seen or heard? Let us know and we will tell the members of the society through the Newsletter. We all want to know what is to be seen and found in our own neighbourhood. Send observations to R. M. Saunders . . . If our members find the Newsletter interesting, we plan to send out an issue with each monthly notice.

"The Jubilee Issue", TFN Newsletter no. 282, March 1974, saluted the Club's first 50 years. Rosemary Gaymer, president at that time, wrote:

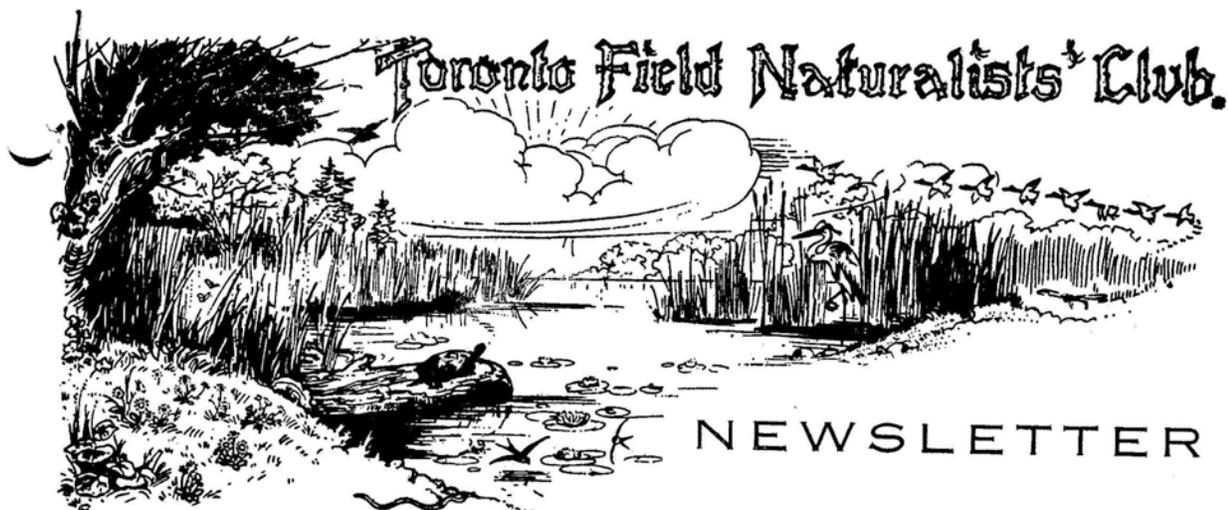
I have now been associated with the T.F.N. for eighteen years . . . and in Toronto for nineteen years. I shall not easily forget my first year, before I found out that there was such an organization as the Toronto Field Naturalists' Club. No-one I knew seemed to have the least interest in natural history . . . Eventually I started reading "The Telegram", and especially Jim Baillie's column, and from his mention of the Club, found my way to a meeting at the Museum. Now I find it a little incredible, and a very great privilege, that this Golden Jubilee year falls within my presidency. Quite honestly, the majority of my friendships have grown through acquaintance with people in the Club, and to me it represents a most important part of my life.

Also in "The Jubilee Issue", the following are extracts from "A Brief Newsletter History" by Elmer (Ilmari) Talvila, Newsletter editor from 1966 to 1976.

During Dr. Saunders' time the Newsletter grew from a small two-page issue to its current size of 10 to 12 pages. Most issues carried observations, letters or travelogue stories from Club members but the outstanding feature was, of course, Dr. Saunders' own nature writing. This was often impassioned and frequently beautiful - particularly when he was writing about birds and the coming of spring! After recently reading all 212 issues, I found myself constantly impressed by his acute observations, his boundless enthusiasm, and his knack of seeing so much of beauty and interest in even the seemingly simple things in nature.

The December 1946 issue (No. 64) saw the first use in the Newsletter of the beautiful engraving showing a marsh scene with a woodland verge. This was the work of Dr. E. M. Walker when he was president of our club in 1926. We have used it once again to head up this Jubilee Issue.

FROM THE ARCHIVES *continued on page 22.*



WEATHER (THIS TIME LAST YEAR)

February 2007

The shift to cold weather that began after the exceptional warmth in the early part of the winter carried over into more than half of February. This made for one of the strangest winters on record. The first 15 days of February averaged -11°C at Pearson. It bottomed out at -21.0° on the 15th. The month overall averaged -8.4° , the coldest month since January 2004 and the coldest February since 1993.

The period from early on 19th January to midnight 20th February (31+ days) was continually below freezing, and if one considers that it only got fractionally above freezing on the 18th and early 19th, the cold spell goes back to 14th January. This was the longest such spell since January 7 to February 10, 1985 (35 days). It was even weirder after the record warmth of December and early January, when almost the entire northern hemisphere was enveloped by anomalous warmth.

Did the cold compensate for the eerie warmth? In part. Most lakes that freeze over in a normal or colder winter, including Lake Erie, did so. We did get the -20° reading that we can still expect most winters. But the 31-day below-freezing spell was still much less unusual in historic terms than the preceding warmth. The December to February average at Pearson was -3.2° , almost a degree colder than 2005-2006 and about three degrees colder than 2001-2002.

Total precipitation was below normal, due to a virtual absence of rain; only a trace fell. This is not unheard of in this short and climatologically cold and dryish month; it happened as recently as 1993 and 1994. Snowfall was around 25 cm. The total precipitation for February (as snow was melted and measured as rain equivalent) was close to 25 mm. The snowfall amounts were close to normal and total precipitation about half or just under half normal.

Gavin Miller

FROM THE ARCHIVES *continued.*

These paragraphs by Dr. Saunders first appeared in TFN Newsletter No. 3, November 1938.

When we come to this time of year, to the verge of winter, we begin to notice in our walks how few of our naturalist friends we meet. In the soft, verdant days of May we come upon them everywhere, binoculars in hand, gazing at some new flower, eager, watchful. Now the paths know them no more. The woods are empty of watchers. They are at home, no doubt, sleeping away the winter like the bear, hibernating naturalists!

Do they not know that the woods and fields, stream and lake, throb with life in winter as in summer? Truly, most of our warm-weather bird friends have gone to southern climes. But well does the winter walker realize that along some sheltered stream, where the berries of the hawthorn linger, he will find a robin, or a towhee, or a redwing blackbird even when the snow lies deep around, and the wind is bitter. . . Most pleasant of all to one who has faith in winter are friends that come from the north to this their southern land. The pine and evening grosbeaks, the redpolls, pine siskins, tree sparrows, juncoes - - these are winter visitors.

Down along the lake front are still other friends to meet, pleasure to enjoy. The ice-cakes will pile up on the island beaches ten and fifteen feet high before February is through. But serenely just beyond this glittering mass may be found the immaculate black-and-white bufflehead ducks, and cheery, gabbling oldsquaws. By the thousands these last stay with us all winter long, and with them other thousands of scaup. Great rafts of them may always be found in the bay, even when they have to huddle together in the single open hole in the bay ice.

Ed. note: Anyone interested in perusing past issues of the TFN Newsletter can find them at our office as well as The Thomas Fisher Rare Book Library, 120 St. George St., Toronto and the Toronto Reference Library, 789 Yonge St., Toronto.

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 Ornithological Club (TOC)

Sun. Feb. 3. "Winter Birds" - Durham Region. 9:00 am - early pm. Leader: Rayfield Pye. Meet at the southwest corner of the Pickering GO station parking lot (Bayly/Liverpool) to car pool if necessary. Bring a lunch and dress warmly. Information: www.birdstoronto.org.

Toronto Entomologists' Association (TEA)

Sat. Feb. 23, 1:15 p m. Keeping Ontario's Honey Bees Healthy. Speaker: Doug McRory. Room 006, Northrop Frye Hall, Victoria College, 73 Queen's Park Cres. E., University of Toronto. Information: www.ontarioinsects.org

Science on Sundays

Sundays at 3 pm. Royal Canadian Institute, J.J.R. Macleod Auditorium, Medical Sciences Bldg., University of Toronto, 1 King's College Circle. Free. Information: 416-977-2983.

Feb. 3 Getting to the Root of Cancer. Speaker: John E. Dick, Ph.D.

Feb. 10 Flying Through Storms: Greenland's Impact on the Climate System. Speaker: G.W. Kent Moore, Ph.D.

Feb. 17 How did that Chemical that was Inside my Computer get Inside of Me? Speaker: Miriam Diamond, Ph.D.

Feb. 24 Sticky Fingers Sharpen our Sense of Hearing – Understanding the Causes of Deafness. Speaker: Dorothea Godt, Ph.D.

Toronto Botanical Garden

Sat. Feb. 16, 10 am to 4 pm. "Get the Jump on Spring" – an annual festival celebrating horticulture, gardening and environmental issues. Southwest corner of Lawrence Ave. E. at Leslie St. Free. Information: 416-397-1340 or info@torontobotanicalgarden.ca

Rouge Valley Hikes

Sundays (approx. 1.5 to 2 hrs). Information: 416-282-8265.

Feb. 10. Starts and finishes at Rouge Valley Conservation Centre (Pearse House), 1749 Meadowvale Rd., Scarborough.

Feb. 24. Starts and finishes at Hillside School.

Gem and Mineral Club of Scarborough

Wed. Feb. 6, 8 pm. The Geological Forces of Water. Speaker: David Bellamy.

Knox United Church Hall, 2569 Midland Ave. (northeast corner of Sheppard and Midland), Scarborough.

Information: scarbgemclub@lycos.com

The Market Gallery

To Mar. 2, 2008. Wed. – Fri. 10-4; Sat. 9-4; Sun. 12-4. In Praise of Cities. Works by Enid Robbie.

South St. Lawrence Market, 2nd floor, 95 Front St. E. Free.

Toronto and Region Conservation Authority (TRCA)

Sat. Feb. 16, 1 pm. Black Creek Upper Reaches. Leader: Gaspar Horvath. TRCA tour bus, short walk and coffee stop.

Information: 416-661-6600 Ex. 5364 or ghorvath@trca.on.ca. Free.

Ian Wheal Walks

Sat. Feb 23, 2 pm. Lost Ponds of Dentonia Park (Lost Rivers). Meet at Main St. subway station. Free.

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Drawing by Diana Banville