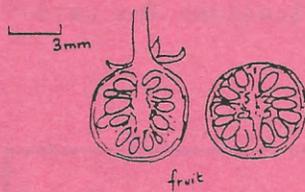
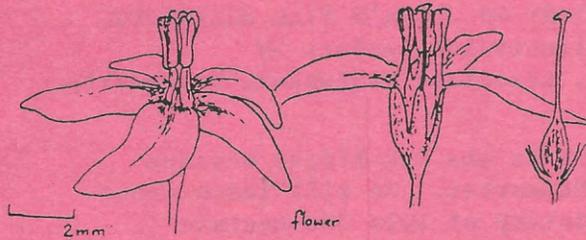


TORONTO FIELD NATURALIST

Number 511

November 2002



BLACK NIGHTSHADE
- native form

- white petals
- black berries

Drawing by
John Sparling

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TFN MEETINGS

Sunday, November 3, 2002 - A NATURAL HISTORY OF JOKER'S HILL SCIENTIFIC RESERVE, an illustrated lecture by Peter Kotanen, Associate Professor, University of Toronto.
at 2:30 pm
at Emmanuel College

75 Queen's Park Cres. East - Joker's Hill is on the Oak Ridges Moraine just west of Newmarket. We will learn about the natural history of this 350 hectare property and some of the research being done there.

VISITORS WELCOME!

SPECIAL GENERAL MEETING!

See pages 5-7.

+ social hour beginning at 2 pm with free juice and coffee

+ memberships and selected publications for sale

NEXT MEETING: Sunday, December 1, 2002

IT'S YOUR NEWSLETTER

Requested: Essays (no longer than 500 words), reviews (no longer than 300 words), poems, cartoons, sketches and newspaper clippings.

Subjects: plants, animals and natural areas in the Toronto region, especially reports of personal experiences with wildlife, including locations, dates, and any sources consulted.

Please include your name, address and telephone number so submissions can be acknowledged. With newspaper clippings, include source and date of each clipping.

Time dated material such as notices of meetings should be submitted at least six weeks before the month in which the event is to take place.

Send material to: Toronto Field Naturalists
2 Carlton St., #1519
Toronto, Ont. M5B 1J3

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Toshi Oikawa, Marilyn Murphy, Robin Powell

Printer: DM Printing

Mailer: Perkins Mailing Services

TFN OUTINGS

REMEMBER: Children and visitors are welcome on all outings but please, **NO PETS!**
 To get to outings on time, check TTC routes and schedules by calling 416-393-4636.
 Check the weather by calling 416-661-0123 so you will know what to wear on outings
 which go rain or shine.

- Saturday GALLERY HOPPING - nature arts
 Nov. 2 Leader: Mary Cumming
 11 am Meet at the Cumberland exit of the Bay subway station.
 Bring anything you wish to show the group when we go to lunch. We will be
 visiting a number of art galleries in the Yorkville area. Lunch will be in
 a mall.
- Nov. 3 TFN meeting (See page 2 for details.)
- Wednesday ETOBICOKE CREEK - nature walk
 Nov. 6 Leader: Robin Powell
 1:30 pm Meet on the bridge over the creek (the north side of Lake Shore
 Blvd. West), west of Brown's Line.
- Saturday PROSPECT CEMETERY - trees & shrubs
 Nov. 9 Leader: Jack Radecki
 1:30 pm Meet at the cemetery entrance on the north side of St. Clair
 Ave. West at the north end of Landsdowne Ave.
- Sunday WESTERN LAKESHORE - nature walk
 Nov. 10 Leader: Boris Mather
 10:30 am Meet at the northwest corner of the Queensway and Windermere Ave.
 Bring lunch.
- Wednesday TAYLOR CREEK - nature walk
 Nov. 13 Leader: Phoebe Cleverley
 10:30 am Meet at the southeast corner of Don Mills Rd. and Gateway Blvd.
 Bring lunch.
- Sunday THE MARKET STREAMS - urban ecology
 Nov. 17 Leader: Ian Wheal & Helen Mills
 2 pm Meet at the southeast corner of Yonge St. and Richmond St.
 This is a joint outing with the North Toronto Green Community.
- Thursday TORONTO ISLANDS - birds
 Nov. 21 Leader: Doug Paton
 9 am Meet at the ferry docks at the foot of Bay St. Bring lunch
 and binoculars.

\$ ferry
 tickets

FOR MORE OUTINGS, MEETINGS AND EVENTS, SEE PAGE 25. ▽

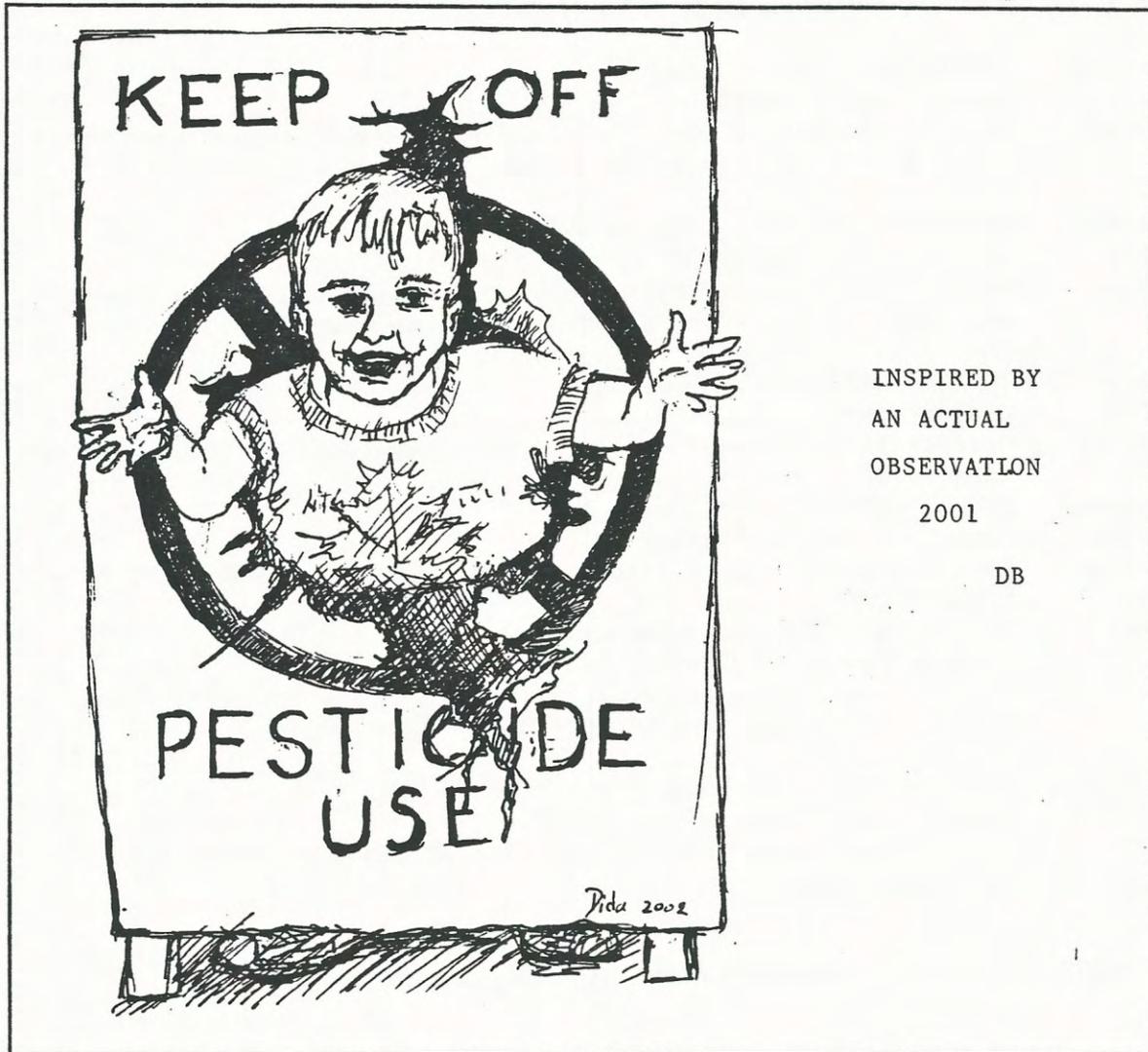
NOVEMBER OUTINGS (cont'd)

Saturday EAST POINT - nature walk
Nov. 23 Leader: Chris Hope
10 am Meet at the east end of the Guildwood Parkway at the foot of
Morningside Ave. Bring lunch.

Sunday BLUFFERS MEADOW - nature walk
Nov. 24 Leader: Ken Cook
11 am Meet at the southeast corner of Kingston Rd. and Chine Dr.
Morning only.

Wednesday ASHBRIDGES BAY - birds
Nov. 27 Leader: Barbara Kalthoff
10 am Meet at the southwest corner of Lake Shore Blvd. East and
Coxwell Ave. Morning only.

□



INSPIRED BY
AN ACTUAL
OBSERVATION
2001

DB

PRESIDENT'S REPORT

For 30+ years I've been wandering the ravines, river/creek valleys and lakeshore of the Toronto area. I've discovered many special places. These can be a unique viewpoint, a place with especially abundant wildflowers, a secluded retreat, vibrant fall colours, a stretch of pebble-bottom creek where salmon spawn, etc. I'm sure many of you have special places in Toronto's natural areas. Recently I discovered a new candidate for my list of special places. For many years I've delayed going down to the end of the Spit (Tommy Thompson Park). Early this summer, loaded down with camera equipment, I rode my mountain bike out to the very end. It was a beautiful early summer day; there were many other bikers (and pedestrians) who also went to the lighthouse at the end. Although entirely man-made, Nature has taken over completely with abundant meadow, forest and wildlife. So far, Toronto and Region Conservation Authority has left Nature alone. The large colony of cormorants resting in denuded trees was an incredible sight. It's remarkable that there are enough fish nearby to sustain such a large colony. It wasn't until I bicycled back up the Spit that something remarkable happened. As I bicycled, flock after flock of cormorants passed overhead on their way to their colony. I lost count of the number of flocks. Although not a birder myself, I couldn't help but be moved by the sight. If one forgets for a moment that these were flocks of a single bird species, this must have been what early naturalists of Toronto would have seen before Ashbridges Bay was destroyed by filling. This was a special experience for me. When I get emotional about Nature, more often than not it's anger at the ignorance, neglect or destruction of Toronto's remaining Natural Heritage. With the Spit, the Toronto and Region Conservation Authority has something that should be treasured. I pray that they leave Nature alone and not do what they have done elsewhere.

After a long search, we have found two suitable additions to our existing nature reserves. The TFN Board of Directors recently approved their purchase subject to the approval of the general membership at the next monthly meeting, November 3rd. See the article on pages 6 & 7.

Robin Powell

□

Biodiversity comprises not only species and habitats but the sum of all the interactions between those different life forms. Increasingly these are referred to as the 'services' that nature provides, such as building soil fertility, regulating climate and purifying fresh water. The services benefit all creatures, not just us, by helping to maintain stability within and between different ecosystems.

from "On the value of life" by Jonathon Porritt in BBC WILDLIFE, Vol. 20, No. 10, Oct. 2002

Nature Reserves Proposed Land Purchase

After more than two years of looking, we decided to change our approach in the search for land as a suitable addition to our three existing nature reserves. It was decided that by using zoning maps we could find suitable properties for conservation. We would then approach the landowner directly or through a broker in the hope that the owner would be willing to sell once our conservation goals were understood.

For what kind of property are we looking? Suitable property should meet the following criteria: It should be 1) an environmentally significant area (ESA), an area of natural and scientific interest (ANSI), or a provincially significant wetland; 2) be relatively inaccessible and self-maintaining; 3) add little or nothing to the existing property tax load; and 4) represent no significant additional administrative work for the TFN Board of Directors.

From the change in approach, we quickly identified a string of adjacent properties south of the Emily Hamilton Nature Reserve; all are within an environmental protection zone (EP). Two of three landowners approached by our real estate broker have responded with offers. (See map for location of these two properties.) The offers for the two 25-acre blocks of land are \$39,000 and \$31,500. We are hopeful that the remaining adjacent property owners can be persuaded to sell their land to us for conservation purposes. Much of the credit goes to Mr. Jerry Spevak, a new director on the TFN Board of Directors, who fortunately for us lives very near the Emily Hamilton and Jim Baillie Nature Reserves. He did the land search, visited the properties and initiated negotiations that were finalized by our local real estate broker.

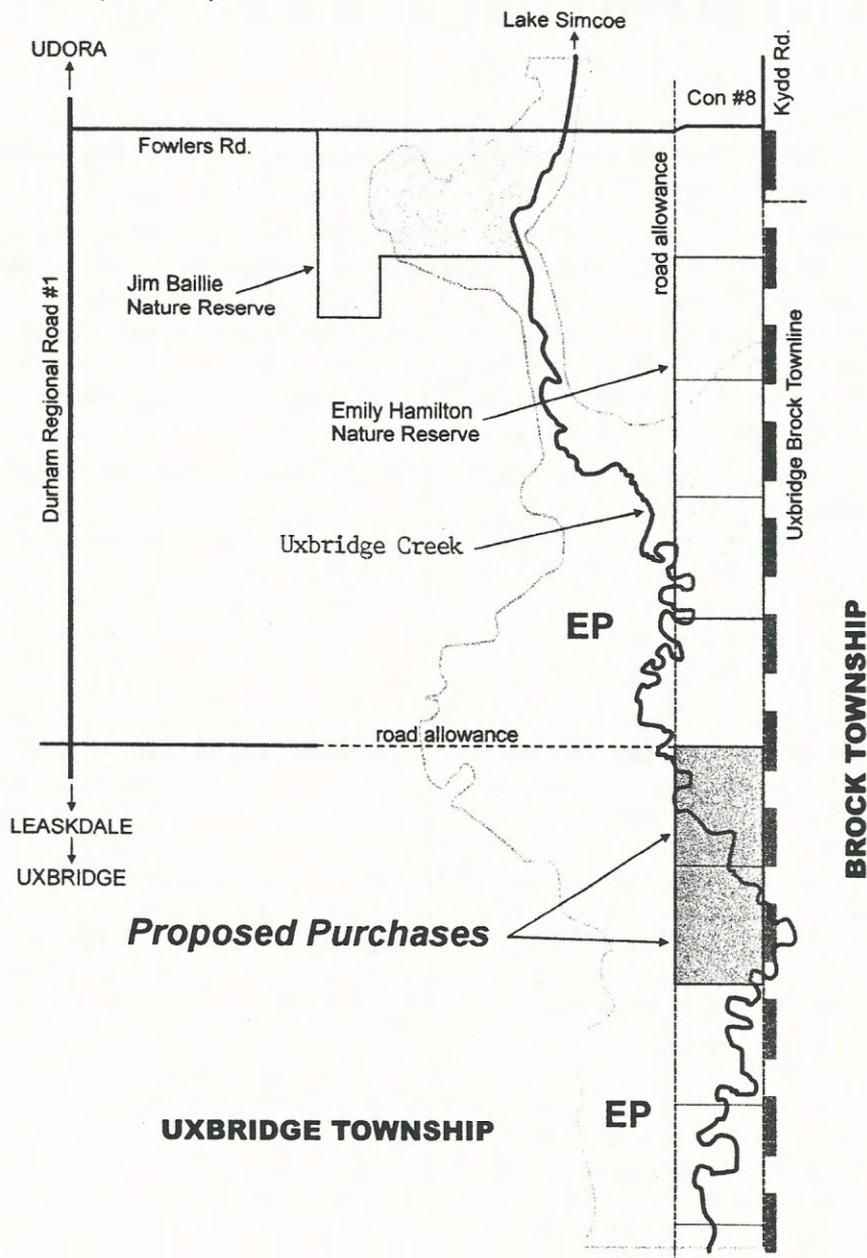
These two adjacent properties meet our requirements. Due to their inaccessibility Jerry Spevak was only able to examine the properties by canoeing up Uxbridge Creek that has its source in the Oak Ridges Moraine. He reports the brook meanders through extensive wetland and alongside forested slopes. There is abundant wildlife -- wood ducks, great blue herons, kingfishers, yellowthroats, white-throated sparrows, and even a least bittern. As could be expected in such a wet area, there are beaver, otters, muskrat, frogs, turtles and deer.

The TFN Board of Directors approved the purchase of these two properties, at the prices stated in the offers, subject to the final approval by the general membership at the next monthly meeting, November 3rd, 2002. At this meeting, there will be a brief slide presentation and question/answer period before a vote of the TFN members present. If you have any questions, please call the TFN office (416-593-2656) and we will try to answer them before the next monthly meeting.

Robin Powell,
President, TFN



NATURE RESERVES (cont'd)



Work Party – Volunteers Needed
Jim Baillie Nature Reserve
Construction/Placing of Boardwalk

One more work party should finish the construction and placement of new boardwalk at the reserve. This along with the installation of a new fence and gate along the north boundary will complete major maintenance work at the reserve for the foreseeable future. Volunteers are needed to cut lumber, nail the boardwalks together, and then carry them into place. Work will begin at 10:00AM on Sunday October 27th. Come when you can. Please call TFN office (416 593-2656) to let us know you're coming or if you need a ride.

□

KEEPING IN TOUCH

August 28, 2002

Current hysteria in various media formats about the prevalence of West Nile virus in birds across eastern North America, has suggested that we should issue a status report.

The virus is indeed here, in Vineland, as well as being everywhere else, and we have lost a number of owls. However, these losses must be viewed in the context of the total number of owls in all the 16 Canadian species we regularly house. In some species, the deaths seem disproportionately high; in others, inexplicably, there are no deaths at all. Theories abound as to why losses are so unevenly distributed among species. Amid the speculations, some facts stand out.

For instance, even with 35 screech owls (mostly vulnerable juveniles in training for release) we have lost none. The same applies to 16 barn owls and 10 burrowing owls. Of 10 resident great horned owls, only one has died. The four resident barred owls are still with us, only one of four juveniles has succumbed. Eight resident short-eared in one complex are intact; all our resident long-eared are still here. Likewise all the flammulated and pygmy owls.

On the other hand, in our four Northern species -- snowies, great grays, hawk owls and boreal owls, the death toll has been appalling. In trying to explain the differences, we have to recognize precipitating factors in the Northern species. One thing they all have in common is extremely dense plumage. This makes them less attractive to a mosquito (the vector for West Nile virus) but it renders them irresistible to a hippoboscid fly, another parasite of wild birds. Our sponsors may remember our ranting over the annual depredations of this cursed fly in newsletter after newsletter. The fly requires a blood meal to reproduce itself and it gets it in a curious way -- by drilling a little hole in the lower shaft of a developing feather, still encased in nourishing blood. Enough of these "Flat Flies" on a single owl can reduce his packed-cell volume (haemoglobin) to dangerous levels. Action is required to remove the flies before he dies of anaemia. Last year we had very few problems with these flies; this year is a different story. Our winter was so mild it did not kill the pupae from the flies which lie on the ground, then we had 6 weeks of rain in March and April which prevented us from removing the pupae and covering the ground with thick cedar, then the weather was so hot in June and July that the northern species simply suspended normal functions including eating.

Our need to handle the heavily-feathered species for flat fly removal was the final stress load they could not handle. These three things, blood loss, extreme heat and constant handling were inevitably the precipitating factors that eroded immune function in these very shy and vulnerable owls and opened the door of opportunity for a new virus. Unfortunately, a compromised immune defense is not as easily demonstrated in histopathology as the footprint of disease.

▷

KEEPING IN TOUCH (cont'd)

We clearly face three imperatives if we plan to continue housing northern owls. Firstly, we need a vaccine against the new virus. We have already had 74 owls vaccinated, but the vaccine is new, its efficacy in owls is unknown and its application was probably several weeks too late. Secondly, we have to find a solution to the flat fly problem. This is the tough one. We need innovative help from the agricultural and veterinary communities -- not only for the sake of future owls but also to look at the fly as a new potential (if only mechanical) vector for viruses like West Nile. After all, the mosquitos that access blood from skin and the flat flies that only drink from feathers, both can transport blood. We need chemicals that neutralize the pupae on the ground under our cages to prevent emergence of the next generation of flies.

Thirdly, we must build an isolation ward of 16 to 20 units to control access of either mosquitos or flies between birds that are arriving at the Foundation or those that are under suspicion. We needed it this past dreadful summer, and work will commence on it this fall.

It is important to us that our members understand the present situation and recognize that all attempts to salvage damaged wild lives and make them productive again, can be viewed as a minefield with no map. Some people think it is useless to try; others, like the staff of The Owl Foundation, feel that humans made the mess and it is bloody well up to us to do something about it. We hope you will agree and that you will continue to support us as we stumble on, looking for solutions.

Katherine McKeever,
The Owl Foundation.

COMMENT: J.L. (Larry) McKeever, husband of Kathleen McKeever, died in May 2002.

He lived a remarkably full and active life. An avid amateur naturalist, he and his wife Kay founded (in 1975) The Owl Foundation dedicated to the study, breeding, care, successful rehabilitation and release of owls. As a wildlife enthusiast, Larry served several times as a director of the Federation of Ontario Naturalists. He was President of the Peterborough Field Naturalists and was responsible for the first check-list of the birds of Peterborough County. Larry also contributed several articles relating to his interest in engineering and wildlife, including a book entitled "A Dowry of Owls", a witty and humorous account of the adventures he and Kay experienced in establishing The Owl Foundation. Remembrances may be made to The Owl Foundation, 4117 21st Street, R.R.1, Vineland Station, ON, LOR 2E0.

from THE GLOBE & MAIL, May 2002.

KEEPING IN TOUCH (cont'd)

September 13, 2002

THE NIGHTHAWK NESTS AGAIN

Torontonians have not been hearing as much from the common nighthawk in recent summers as in the past when it was a familiar husky voice at dusk. Recent reports, however, show that it is still nesting here. An adult female with two large fledgelings was discovered on July 31, 2002 in an old industrial area in the vicinity of Dundas & Bloor, according to the Toronto Ornithological Club Newsletter of September, 2002. Crows, kestrels and ring-billed gulls have been blamed as predators.

Diana Banville

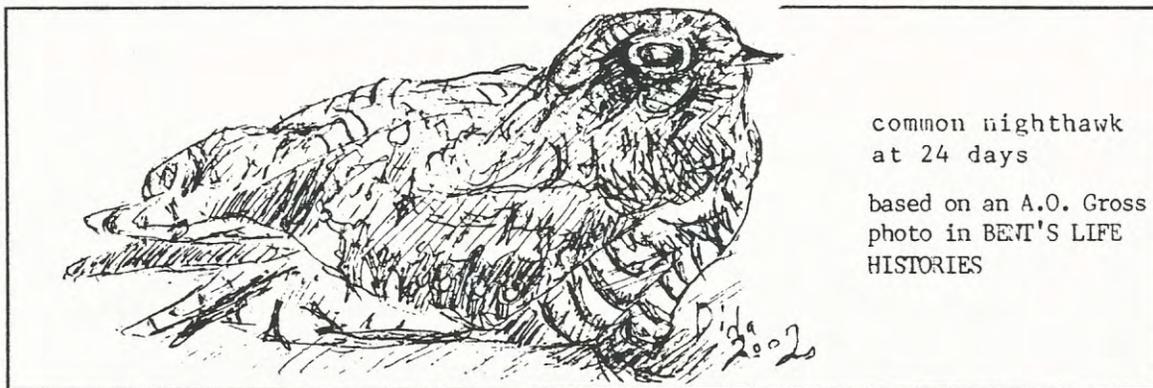
September 24, 2002

Re: Nighthawks (TFN 510, page 20)

Not to worry. They are over at my place. There was a family of four for 2 weeks and single ones most of the summer. A first for me -- I live in Riverdale.

Kathleen Fraser

Comment: Ruth Munson called to say she had seen as many as 16 chimney swifts often this summer near Cedarvale Ravine. Helen and Bob Hansen called about seeing chimney swifts in late August and September near York Cemetery.



Habitat fragmentation has been shown to be one of the major forces driving species extinction. ... When green corridors connect green spaces, they are no longer islands but nodes in a network of natural habitat. ... Because they are such valuable habitat, stream courses and riparian areas should be given the highest priority for protection.

from "Greenways and Green Spaces: nature's anti-extinction team" by Harvey Williams
in THE VICTORIA NATURALIST, July, August 2002, Vol. 59.1

KEEPING IN TOUCH (cont'd)

September 18, 2002

I am a life member, before that a regular member since about 1932, enjoying many meetings and outings over the years.

I am enclosing two photos -- one of Stuart Thompson on an outing at Sunnybrook Park; the other -- taken just around the corner from my home, at Hanna Road & Parklea Drive (near the Leaside High School) in October 1968 -- with a 400 mm lens [of a large flock of Canada geese].

Thank you for the years of pleasure.

W.E.Renison



PROJECTS

ECOLOGY PARK REVITALIZATION

Ecology Park (on Madison Avenue, North of Bloor Street) is currently a bleak, empty field with a locked fence around it, but the Annex Residents' Association wants to change that. They are planning to revitalize the site by bringing back elements of Taddle Creek, and indigenous plants. "We don't want just a park with grass and trees, we want natural features of the area," says Elizabeth Whelan from the ARA. They plan to re-submit their plans to the city in September, after which they plan to consult with the community. The ARA hopes work will begin on revitalizing the park by the end of fall. For more information about this project, call the ARA hotline at: 416-926-9261.

from an article in THE ANNEX GLEANER, Sept. 2002

TERRESTRIAL NATURAL HERITAGE MONITORING PROGRAM

The Toronto & Region Conservation Authority is now looking for outgoing, committed volunteers from the Toronto region, for the ongoing terrestrial monitoring program. Volunteers will learn more about the identification of species in our region, develop field skills, form a bond with the local landscape and its flora and fauna inhabitants, and share activities with others who have the same interests. More importantly, volunteers will develop skills in evaluating land use decisions made at a regional scale. Every year volunteers will conduct species surveys in sixty-six ten-hectare plots, or "fixed sites" distributed throughout the TRCA jurisdiction. The fixed site inventories will focus on 50 pre-selected indicator species of plants and animals found in forests, wetlands, and meadows. These "indicator" species have a wide range of adaptability and sensitivity and will tell us much about where each site lies along the gradient of ecosystem health. Data from the sites, combined with staff data, will be used to report on the health of our TRCA jurisdiction, or at slightly smaller scales such as municipalities and watersheds. TRCA reports and mapping based on volunteer findings will be available to all volunteer observers and to the general public through the TRCA website. The website will be continually updated to incorporate the trends in species presence or absence in relation to the changes in land use over the years. This will allow volunteers to witness how their data collection contributes to the Terrestrial Natural Heritage Approach.

For more information about the Terrestrial Volunteer Monitoring Program please contact: Kimberly Harris, Terrestrial Volunteer Coordinator, at 416-661-6600 Ext.5658 or e-mail questions to kharris@trca.on.ca. We will be holding a volunteer recruitment workshop in November for all those interested in participating in the program.

Nature is much more enchanting to me now than it was when I knew less about it.

from "Can Nature be Declawed?" by Marlene Zuk in NATURAL HISTORY, Vol. 111, No. 8, Oct. 2002

PROJECTS (cont'd)

HERITAGE IN NEED OF HELP

Ashbridge House was originally built by the Ashbridge family in 1854 and remained in the family until it was donated to the ONTARIO HERITAGE FOUNDATION (OHF) in 1972. The last family member moved from the house in the 1990's.

Two years ago Canada Blooms, jointly owned by Landscape Ontario and the Garden Club of Toronto, agreed to rent the house for their offices. They immediately demanded parking for over 20 cars be installed in the middle of these historic gardens. Local protests managed to get this reduced to space for 12 cars plus a driveway. This area was gouged out last fall, and installation of a 21st century interlocking stone parking lot started this summer with donated (read "free") stone which the poor OHF readily accepted. Bulldozers were brought in and used with no regard for the numerous unique 100-year-old shrubs in the area. Trucks were parked all over their root areas and the shrubs were covered with construction dust through the hot summer. All of this right under the watchful (?) eyes of the staff of Canada Blooms.

The debris has been removed and the lawn areas re-sodded recently. Weeds are taking over many of the other garden areas. Apparently no pruning, no fertilizing, no watering has been carried out by the OHF, the government agency charged with protecting Ontario's Heritage. They have dismissed the Landscape Architect who was commissioned to prepare a report on how these unique plants and gardens could be protected for future generations!

▷ If you have any access to members at Queen's Park, may I suggest you contact them. And don't forget who owns Canada Blooms. Please drop them a note as well.

Larry Sherk

FOR YOUR INFORMATION:

- Canada Blooms, 1444 Queen St.E. M4L 1E1
- Garden Club of Toronto, 777 Lawrence Ave.E. M3C 1P2
- Landscape Ontario, 7856 5 Line S., Milton L9T 2X8 (905) 875-1805
- Ontario Heritage Foundation, 10 Adelaide St. East, M5C 1J3

We must avoid managing nature by numbers, performance indicators and other 'corporate' approaches. We must also fight for all of our reserves, protected sites and biodiversity action plans as they do have solid scientific justification.

from "Nature in Perspective" by Tim O'Riordan (a book review of NATURE CONSERVATION by Peter Marren, Harper Collins New Naturalist) in BBC WILDLIFE, Vol. 20, No. 8, Aug. 2002

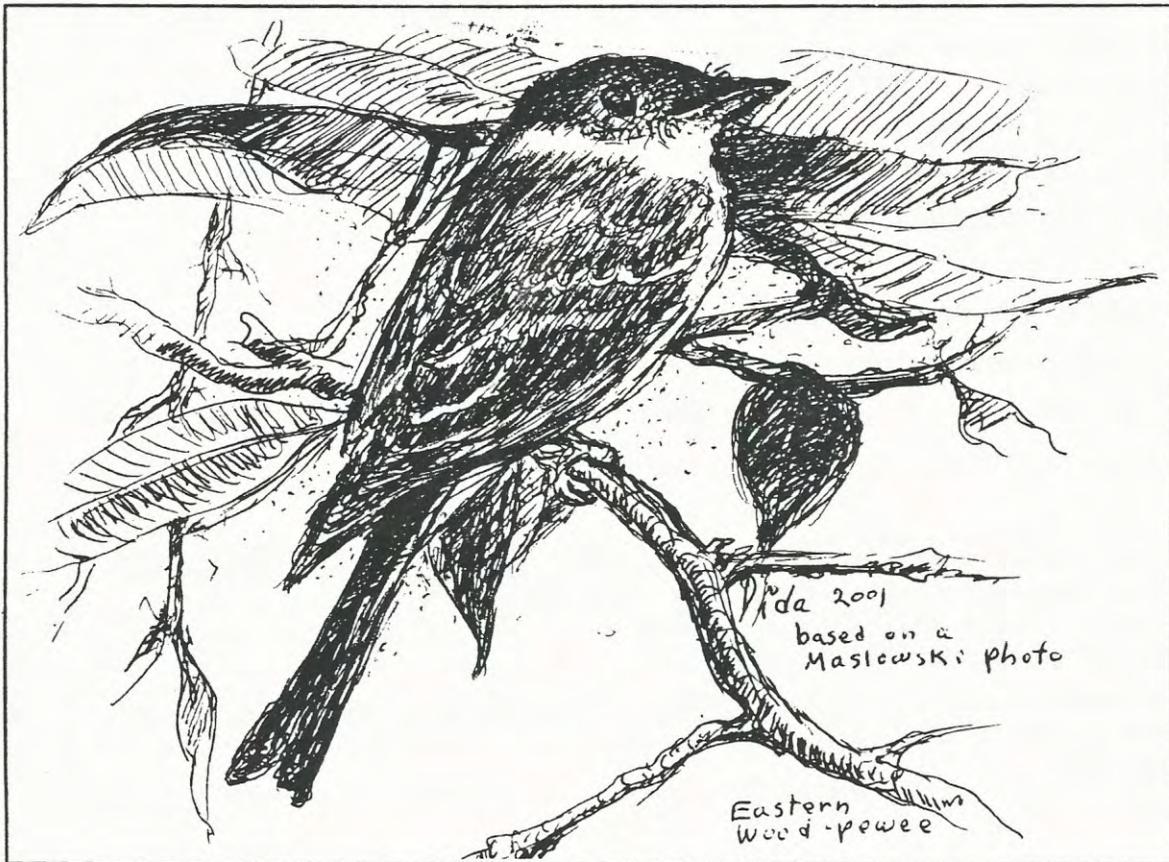
THE TREES OF MOUNT PLEASANT CEMETERY

Although many members of the legume family are edible, some plants in the cemetery are quite poisonous. The black locust (Robinia pseudoacacia) has bark which will poison horses that chew it. (Never tie your horse to a locust tree.) Another tree that has poisonous seeds is the Sophora. According to my medical dictionary, sophorine (a poisonous alkaloid) exists in the seeds of Sophora, Cytisus (broom), and Baptisia (indigo). Other poisonous legumes include lupines and mescal beans. Locoweeds of the southwestern United States are responsible for the deaths of many cattle, horses and sheep.

The black locust is an American tree but is now grown in Europe. The wood is very durable and was commonly used for fence posts. The wood can be buried and still last fifty years. The black locust has become naturalized in Toronto and can be found in many wild areas as well as on front lawns. These trees grow on the hillsides of Mount Pleasant but I doubt anyone planted them.

Roger Powley

□



IN THE NEWS

MARTIANS IN SPAIN?

If there is life on Mars, it might well resemble the microbes in Spain's Rio Tinto River. A team of Spanish and NASA researchers have confirmed that so-called extremophile bugs thrive in the waters of the river, which flows through the world's largest deposit of fool's gold, has a pH similar to battery acid, and contains virtually no oxygen in its lower depths.

from an article by Michael Kesterton, in THE GLOBE AND MAIL, September 6, 2002

RAVINE BYLAW WOULD LIMIT TREE CUTTING

Toronto is poised to vastly expand its bylaws prohibiting people from indiscriminately cutting down trees in ravine areas such as those along the Don and Humber rivers and other watercourses. The former municipalities of Toronto, East York and Scarborough have such bylaws, but a draft of a new citywide bylaw would add North York, Etobicoke and York. In North York, for example, it would include the east and west branches of the Don River north to Steeles Ave. The protection area would increase from 2,763 hectares to 7,990 hectares, representing about 13 per cent of the city's total land mass.

Most of the ravine lands are in public ownership, but the bylaw would affect homes and other private properties that back onto ravines, where part of the rear of the property falls within the ravine control boundary. Felling healthy trees would be prohibited without obtaining permission.

from an article by Paul Moloney, in THE TORONTO STAR, September 9, 2002

NORTH CHINA SUBSIDENCE

China's northern city of Tianjin has sunk 2 metres during the past two years. The sinking has damaged many of Tianjin's buildings and pipelines and increased the concentration of salt and other chemicals in the groundwater. Experts said the subsidence was caused by a growing funnel-shaped area beneath the North China Plain, which has resulted from the increased tapping of water for agricultural and household uses. The scientists reported that more than 30 other funnel-shaped areas have also been discovered in northern China as a result of tapping underground water tables. They feared that all of the funnels will eventually join to cover an area of 40,000 square km.

from an article by Steve Newman, in THE TORONTO STAR, September 14, 2002

She drew in her breath
seeing the sliver of moon.
But it was so sharp!

haiku by Diana Banville

STRESSES TAKING ROOT IN TORONTO'S URBAN FOREST

It may seem funny to think of this, Canada's largest city, as existing within a forest, but Toronto's trees far outnumber its human inhabitants. There are, by rough estimates, some 6 million trees in Toronto, compared with 2.5 million people. About half a million of these sylvan neighbours line our streets, another 2.5 million grow in our parks and ravines and a further 3 million inhabit backyards and other private property. And while many of these trees are flourishing, many are in serious trouble.

If you drive up and down streets, in the older parts of the city particularly and look consciously tree by tree, you'll find that many of them show major signs of stress. One of the major stresses on Toronto's trees is their age -- many have simply reached their lifespans. A lot of trees that were planted at or before the turn of the century have reached their life expectancy and those trees are going to come down.

A host of other arboreal stresses [is] taking root across Toronto. And these new pressures are wielding a double-edged axe against the city's forest, causing many trees to wither and die before their time and ensuring the saplings planted as replacements will never reach the soaring heights of their predecessors. These pressures include increased pollution levels, global warming, drought and diseases. But it's the human activity taking place on -- and below -- the ground, experts say, that is turning many Toronto trees into timber.

Among the threats:

- . The creation of monster homes. Thousands of people are tearing down existing homes and putting up massive new dwellings.
- . Pads. Tens of thousands of homeowners, sick of searching for street parking, are tearing up front lawns to install parking pads over green space where large trees have thrived.
- . Projects that cut down grade levels around a tree, depriving it of soil it once counted on for nourishment.
- . Replacement of aged underground piping, especially in older city sections, plus the installation of new gas and fibre-optic lines, can play havoc with the sensitive root systems of street-side trees.
- . In addition, the creeping spread of concrete, tile and asphalt paving over wide swaths of city green space can create microclimate changes that alter the temperatures in which mature trees have lived their stolid lives.

A mature tree needs about 36 cubic metres of rich surrounding soil to thrive. And much of that soil must be topped with grass or other porous surfaces to allow the roots access to water and oxygen. Much of the root system grows within the upper two feet of soil; this is where the root system derives most of the nutrients. That 36 cubic metres it needs can't go straight down, it has to be very close to the surface for the tree to get sufficient nutrients and oxygen.

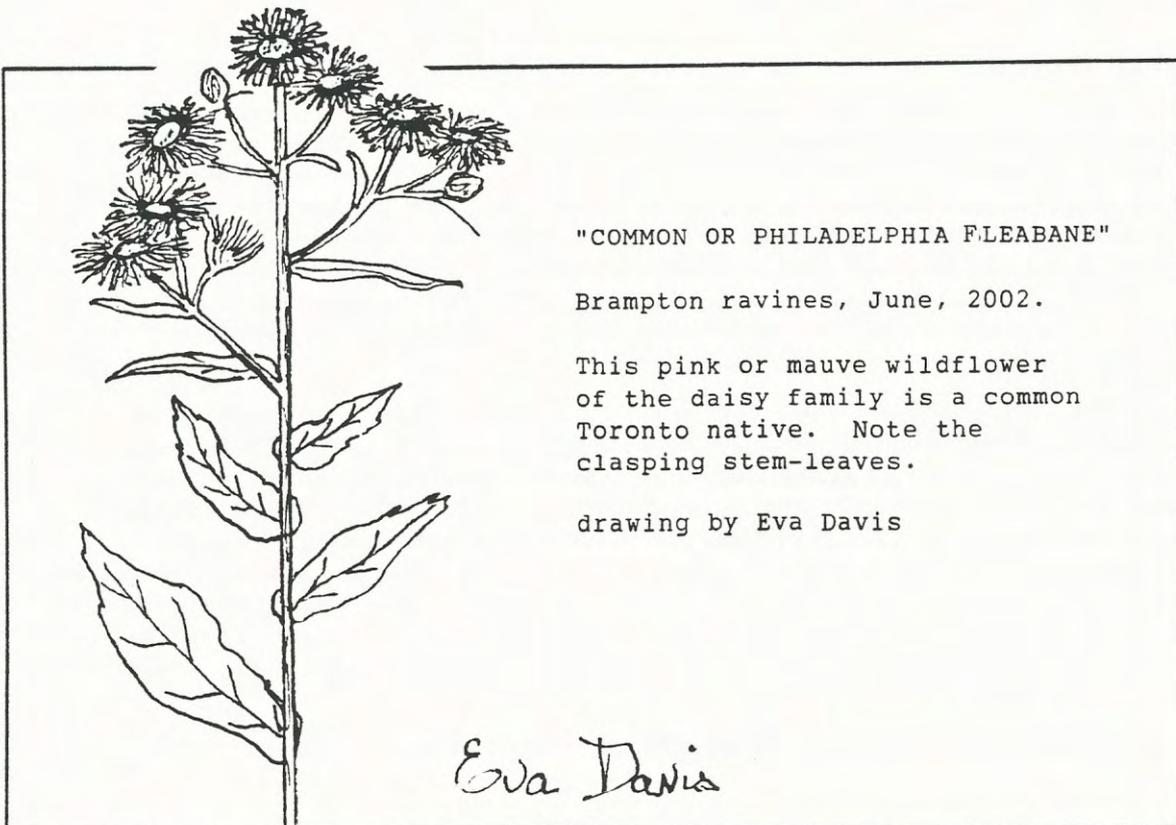
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IN THE NEWS (cont'd)

The value of trees to Toronto, however, goes far beyond their aesthetic appeal. An urban forest acts as a giant cooling and filtration plant in a city. By evaporating large amounts of water through its leaf system, for example, a tree acts like an organic air conditioning unit. To assist in its efforts to push the water vapours out into the air, a tree must absorb heat energy from the surrounding atmosphere, helping to cool the space around it. As well, a tree is nature's most proficient pollution-calming device. While small, airborne particles like dust are trapped in its leaves and branches, gaseous pollutants like sulphur dioxide and carbon dioxide are actually absorbed into its foliage.

New rules -- which actually ensure sufficient, healthy soil is maintained around trees during construction -- must be enacted to guarantee the health of Toronto's forest. And the city's emerging official plan should be the document in which these new regulations are developed. The City needs to make sure trees have enough soil, and the right types of soil so that we can have mature trees that are not going to die when they're 30 years old because they've now outgrown the space that they're growing in.

from an article by Joseph Hall, in THE TORONTO STAR, September 29, 2002



"COMMON OR PHILADELPHIA FLEABANE"

Brampton ravines, June, 2002.

This pink or mauve wildflower of the daisy family is a common Toronto native. Note the clasping stem-leaves.

drawing by Eva Davis

Eva Davis

EELS ON A SLIPPERY SLOPE, WARMING IS SUSPECTED

The stock of eels in Lake Ontario and the St. Lawrence River is crashing and the reason may lie wrapped within the mysteries of the Sargasso Sea. That's where the eels spawn. Canada lies at the northern edge of the eels' range. It is here and at the southern limit, extending from Texas to South Carolina, that the declines are precipitous. They signal that the entire species is in trouble.

In the early days of European settlement, eels may have made up half of the inshore fish biomass. When commercial fishing was at its height 22 years ago, there was only about one-tenth of that number of eels remaining. The amount of the current catch is less than 4 per cent of the original number.

Things that could impact reproduction are: loss of 84 per cent of historic habitat; zebra mussels (eels hate light and zebra mussels clear the water); possible overfishing everywhere in the eels' range during the 1970s and 1980s; harvesting of weeds in the Sargasso Sea; the scarcity of alewives, the preferred prey of eels; the warming of Lake Ontario; pollution in the lake; and oceanic oscillation (variations in water temperature and ocean levels associated with changes in the Gulf Stream).

from an article by Cameron Smith, in THE TORONTO STAR, September 14, 2002

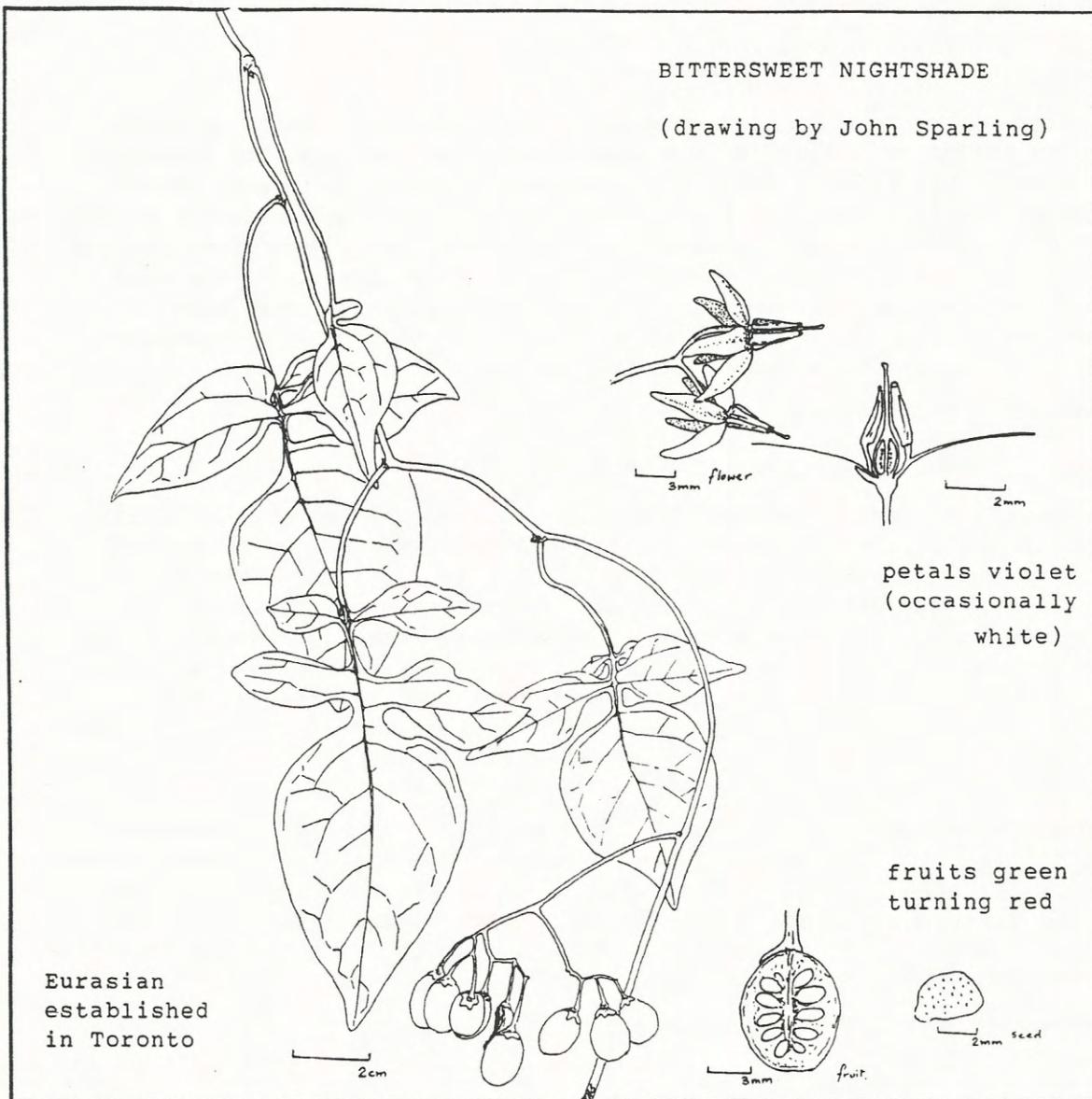
TUNNELS UNDER BAYVIEW TO PROTECT RARE SALAMANDER

York Region will build five amphibian tunnels under the controversial Bayview Ave. extension through the Oak Ridges Moraine after 15 rare Jefferson salamanders were found in the area. The steel and concrete tunnels, which are several feet in diameter and can easily accommodate other small wildlife, will run ditch-to-ditch under Bayview Ave., between Bethesda Rd. and the Jefferson ravine. The total price tag of the Bayview project is about \$10 million. The extension, which runs between Stouffville and Bethesda Rds., is scheduled to be completed in late October.

Consultants recommended the Bayview Ave. tunnels, and that amphibian crossings be constructed on Stouffville Rd. so the tiny creatures can safely cross as they migrate and move about. The salamanders found during the study included one true Jefferson salamander, 13 Jefferson complex salamanders and one phenotype Jefferson complex salamander. Nine salamanders were captured live, toe-clipped and released, while the remaining six were found dead on Stouffville Rd. The study concluded that most of the tiny amphibians were migrating south across Stouffville Rd. toward ponds after wintering in the Jefferson Forest on the north side of the road.

from an article by Gail Swainson, in THE TORONTO STAR, September 17, 2002





Bittersweet nightshade is a climbing vine with sinuate, lobed leaves. It is often called "deadly nightshade" in error; though it is poisonous, especially to young children, it is not close to the extreme toxicity of the true deadly nightshade or belladonna which is not found here. (See cover for black nightshade to compare.)

The frost last night stole
castor-bean magnificence.
Today sad ruin.

Haiku by Arthur Wade
City Park, November, 1997

IN THE NEWS (cont'd)

BRITAIN: SILENT WITNESS RECOVERS LOOT

The police in western England said they had recovered a cache of stolen property thanks to a squirrel. A spokeswoman for the Avon and Somerset Police said that after a 29-year-old man was arrested on suspicion of burglary, officers returned to the scene of the crime and were met by the squirrel, which "indicated it wanted the officers to follow it by running a little, stopping and then looking back before continuing." She said it then climbed a tree, at the base of which officers found four boxes of stolen crockery. "We are not keen to highlight this," the spokeswoman said. "We never like to encourage vigilantes."

from an article in the NEW YORK TIMES, June 1, 2002

BLUFFER'S PARK HOUSEBOATS WIN REPRIEVE

The controversy around whether 24 houseboats should be allowed to remain docked in the Bluffer's Park Marina has been sunk for now with council voting to let the homes stay until 2022. But it could resurface in 20 years when the current lease between the marina's private operators and the city comes due for renewal. Councillors voted 23-7 to allow the homes to remain in spite of a confidential report from the city solicitor that said the city had a good chance of having them removed as their presence was likely a violation of the terms of the lease. The vote also puts on hold planned legal action and prevents any additional homes from being docked but grandfathers those already there.

The decision clears up a grey area for other marina operators that float homes are not to be docked on Toronto shores. The settlement does, however, increase the number of legal live-aboards -- people who reside year-round on their recreational pleasure craft -- from the current 60 to 76. And after 20 years, the allotment of 24 float homes will be converted to live-aboards bringing their number at Bluffer's Park to 100.

from an article in THE SCARBOROUGH MIRROR, August 4, 2002

PEEL MAY JOIN ENVIRONMENTAL PLAN

An agreement has been reached between the Oak Ridges Moraine Land Trust and York Region to help get donations of land or conservation easements from private property owners to protect areas of natural and scientific interest from development. The trust needs help with the legal costs involved when deals are made to protect natural areas. The deal with York provides some financial assistance. The average cost per transaction is about \$15,000.

Donating a conservation easement ensures the property will be protected, but the owner retains title and may sell it. In return, the landowner gets a tax rebate from the federal government based on the value of the land. The land trust now has a list of about 30 landowners who want to help. To date, 315 hectares of moraine have been protected through agreements negotiated by the land trust, while negotiations are underway to protect 287 more. A further 330 hectares are being investigated for possible acquisition. ▷

IN THE NEWS (cont'd)

Peel hasn't decided yet how it will assist the land trust, but staff have been requested to bring a report to a future council meeting outlining ways the region can get involved.

from an article in METRO TODAY, August 12, 2002

DUNKER'S FLOW KEEPS WATER CLEAN AT BLUFFER'S PARK

At Bluffer's Park in Scarborough, the series of floating bridges are more than just a walkway for visitors. They are part of what the City of Toronto hopes will be the solution to cleaning up polluted water spilling into Lake Ontario. The series of pontoons are known as the Dunker's Flow Balancing System. This is the first time the project has been used in Canada and is named after its inventor, Karl Dunker of Sweden who designed the device in 1978. It treats the stormwater coming out of the Brimley Road drainage area.

Urban development has increased the amount of water runoff in storm sewers. Urbanization has also increased the amount of pollutants mixed in with the water. Animal waste and other harmful chemicals get washed into the lake from roadways in the city.

The device was officially opened in 1999. All three levels of government shared in the \$2.4 million building cost. The system is designed to reduce pollutants by slowing down the flow of water allowing contaminants to settle to the bottom within a series of cells. The facility is comprised of five connected cells made up of plastic curtains hanging from pontoons in the water. The first three cells in the Dunker's Flow capture the stormwater runoff. When the water reaches the fourth cell, which is a long slender channel, contaminants in the water fall to the bottom. The last cell is a wetland, which provides some final cleansing of the water before it returns to the lake. Clean water is pumped into the system to clean cells for the next rainfall.

Initial results indicate Dunker's Flow is working well. The water tests are positive in comparison to ponds or wetlands, new areas of urban development now used to filter stormwater runoff. Dunker's Flow would be ideal for older areas of the city, which didn't have a pond or wetland to filter the stormwater. A better solution would be to make sure many of the pollutants don't get into the water in the first place. People should disconnect their downspout and use rain barrels to decrease the amount of water going into the sewers, sweep their driveway rather than using the hose to wash it and ensure other materials don't end up in the sewers.

from an article in THE SCARBOROUGH MIRROR, August 2, 2002

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Two of Britain's once commonest birds, starlings and house sparrows, are becoming so rare that they have been put on the list of species whose survival is threatened.

from "Sidelines" by John Vidal in BBC WILDLIFE, Vol. 20, No. 10, Oct. 2002

IN THE NEWS (cont'd)

FEATHERING YOUR NEST

City birds prefer the wealthier postal codes, according to researchers from Arizona State University. Researchers studied the variety and abundance of birds in 15 small community parks and found that the richest neighbourhoods had the largest and most diverse bird populations. Poor neighbourhoods had the fewest birds and fewest species -- even when they had a greater variety of trees. Since the parks in wealthy areas did not have superior vegetation, whatever people are doing is having an influence, because we can't explain it with the park itself.

from an article by Michael Kesterton in THE TORONTO STAR, August 29, 2002

USE EXPERTS TO RELEASE 'DOVES'

The release of white "doves" -- an old tradition, as doves are a symbol of peace and love -- is becoming popular again at weddings, funerals, memorials and special events. What many people don't realize is that the "doves" are actually white homing pigeons -- descendants of the rock dove. These are specially raised and trained birds capable of finding their home from more than 150 kilometres away. Ringneck doves, however, are small, have no homing ability, and are not capable of sustaining long flights. Unfortunately, some people are confusing the ringnecks that can be bought from pet stores with the "doves" -- white pigeons -- used by legitimate release companies. As it is far cheaper to purchase a pair of doves from a pet store than to hire a company, people are using these poor defenceless creatures for their weddings. By doing so, they are consigning the birds to an almost certain death, from either starvation, exposure or by falling prey to a cat, hawk, or owl.

from an article by Janine Harsell, in THE TORONTO STAR, September 1, 2002

DEAD BIRDS, FISH LITTER LAKE ERIE BEACHES

Large numbers of fish and fish-eating waterfowl have been washing up dead on the north shore of Lake Erie as botulism bacteria make their way up the food chain through exotic species such as zebra mussels and goby fish. Wildlife and health officials have so far been unable to pinpoint the cause. The toxin produced by type E botulism bacteria is usually found in the dead fish and birds. But how it's entering the food chain remains unclear. The bacteria are common in the lake-bottom mud but normally lie there undisturbed, causing no harm. Scientists suspect the arrival of zebra and quagga mussels 15 years ago, coupled with the recent arrival of the bottom-feeding round goby, has caused the release of the bacteria into the ecosystem. The bacteria come to the surface when the lake waters flip in an event known as a thermocline. There seems to be a link between these inversions in the near-shore areas and these botulism outbreaks. Since the die-offs began in 1999, there have been no reports of humans falling ill. Previous die-offs in Lake Erie have lasted into December.

from an article by Monte Sonnenberg, in THE TORONTO STAR, September 6, 2002

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IN THE NEWS (cont'd)

FLY THE FILTHY SKIES

According to the Global Policy Forum, a non-governmental organization based in New York City, airplane travel is the fastest-growing source of carbon dioxide emissions. Jet emissions currently stand at 4 per cent of the world total, according to the GPF, but that contribution is expected to triple by 2015. The average flight consumes 17.5 litres of jet fuel per kilometre. A public bus, by contrast, consumes an average of 0.53 litres/km -- 7.9 times more efficient than a plane. (A private automobile, carrying the U.S. average of 1.2 people, is one-third as fuel-efficient as a public bus.)

The impact of plane pollution is probably larger than that from cars and buses. Some of the ground-level gases can be absorbed by plants and trees. In contrast, airplanes release exhaust composed of carbon dioxide, carbon monoxide, water vapour, nitric oxide and ammonia into the "fragile and rarefied" region of the stratosphere. Air density at that height is only about one-sixth that at ground level, so cold gases there may remain in place for several years and form a stable ring of pollution that impedes the flow of energy from the lower atmosphere. This may help explain why the Earth is experiencing much higher rates of increase in temperature than can be accounted for by the moderate increase in greenhouse gases in the atmosphere as a whole. The increasing volume of airplane traffic worldwide has serious environmental consequences, perhaps more serious than the ozone-hole phenomenon.

from an article by Rosemary Frei, in THE GLOBE AND MAIL, September 28, 2002

NO WONDER OUR WATERS ARE POLLUTED!!!

Pig barns with 500 to 4000 animals create wastes equivalent to towns with a population of 2,200 to 18,000 and yet there is no requirement for sewage treatment.

from "Ontario's Lake Huron Watershed in Crisis" in EARTHWAYS (Sarnia Field Naturalists), Feb. 2002



THIS MONTH'S COVER

Black nightshade is a common weed of disturbed ground, gardens and parkland found throughout the Toronto Region. It has white star-shaped flowers with a yellow pointed central cone of five adjoining anthers, very similar to the flowers of tomato and potato which are also members of the nightshade family. Black nightshade is often considered poisonous although it has been used as a herbal remedy. In fact the family includes many medicinal plants along with many that are extremely poisonous and many which are important foods.

John Sparling

(For comparison, see also bittersweet nightshade, see page 19)

THE WEATHER (THIS TIME LAST YEAR)

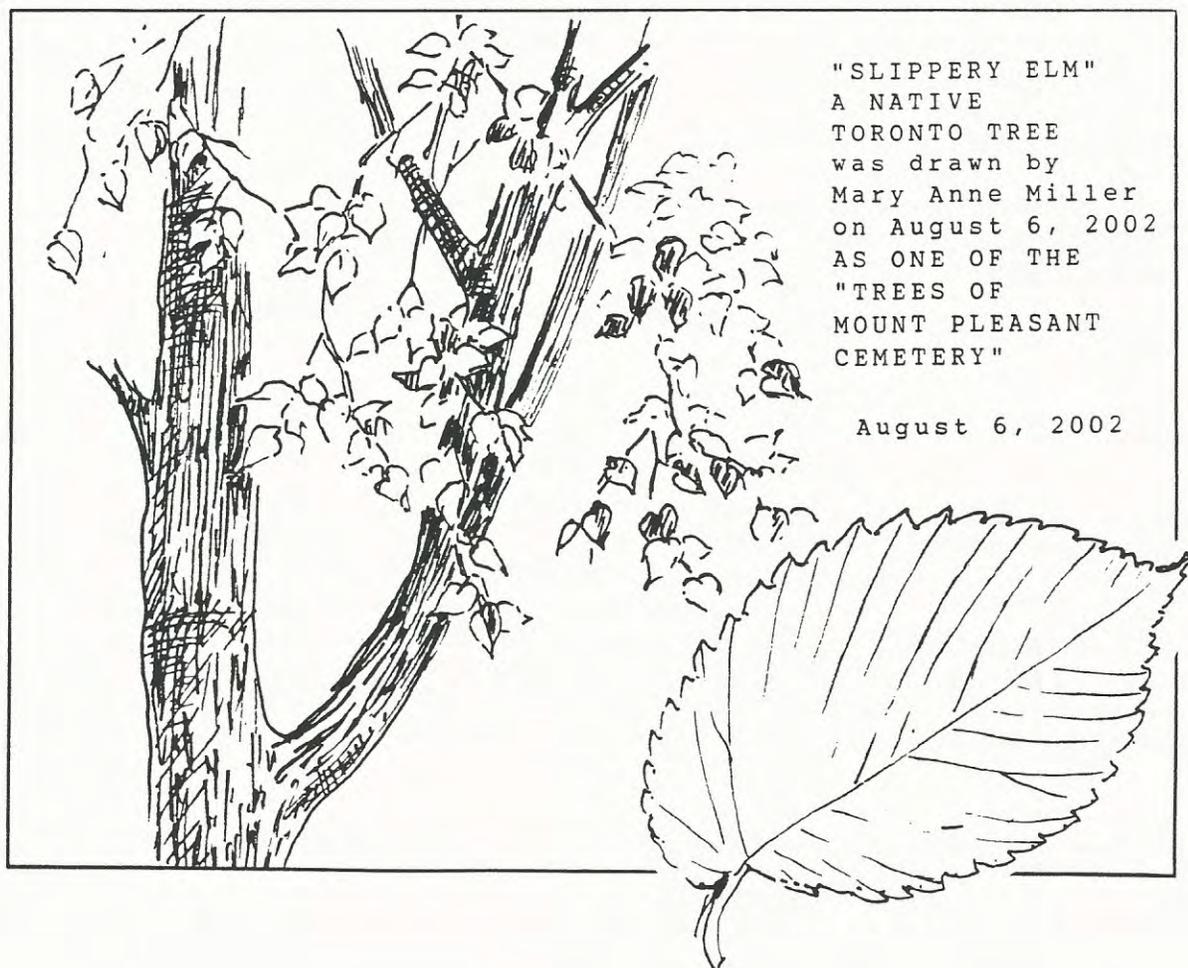
November 2001, Toronto

Record warmth prevailed in November. Downtown had its second-warmest November on record with a mean of 8.2°C (1975 still holds the record with 8.5°C); and Pearson beat the 1975 record by 0.8°C with a mean of 7.2°C. The summer-like pattern was further exemplified by the 111 hours of sunshine as opposed to the normal 85; by the light winds (Toronto Island's 17.2 km/h was the lowest since 1986); and by the relatively wide spread between daytime high and overnight low temperatures. The average spread between high and low was 5.7°C downtown, the most since 1990. Temperatures peaked in the upper teens, which is not unusual for the month as a whole, but were persistently warm. Downtown narrowly missed having a frost for the first time on record -- it bottomed out at 0.1°C.

Dry conditions prevailed most of the month, but the final six days brought significant rains, so that total monthly precipitation was almost exactly normal. Only traces of snow fell.

Gavin Miller

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COMING EVENTS

Royal Canadian Institute - free lectures on science at 3 pm at the J.J.R. Macleod Auditorium, Medical Sciences Building, 1 King's College Circle. Call 416-977-2983 for more details.

- Nov. 3 - Waste Not, Want Not: Extracting Value from Wastewater
- Nov. 10 - Climate Change: Where on Earth are we going?
- Nov. 17 - The Revolutionary Concept of Continuous Passive Motion of Joints for Preventing Some Forms of Arthritis
- Nov. 24 - Cosmos versus Canvas: Tensions between Art and Science in Astronomy Images

Toronto Entomologists' Association meeting

- Sat. Nov. 23 at 1 pm in Room 119, Northrop Frye Hall, 73 Queens Park Cres. East - Chris Darling will talk about the Royal Ontario Museum in Vietnam.

Mycological Society of Toronto

- Meetings and forays to look for mushrooms
- Call 416-444-9053 for information.

Ian Wheal Heritage Walks [For more outings, see NOW.]

- Sat. Nov. 2 at 1 pm - Anderson Springs - lost medicinal spring. Meet at the northwest corner of Yonge St. and Lawrence Ave.

Toronto Ornithological Club

- next outing in December

Toronto and Region Conservation Authority Conservation Seminars

- Sat. Nov. 23 from 1 pm to 3 pm at Tommy Thompson Park at the foot of Leslie St. This is a joint outing with the Toronto Bay Initiative.

High Park walking tours

- Nov. 10 - Ducks by the Pond
 - Nov. 24 - High Park's Monuments and Memorials
- Walks begin at 1:15 pm from just south of the Grenadier Restaurant in High Park. Call 416-392-1748 or 416-392-6916 for more details. \$2 donation.

Citizens Concerned about the Future of the Etobicoke Waterfront

- Nov. 9 from 9 am to 11 am at Humber Bay East with Andrew Keaveney looking at birds. Call 416-252-7047 for more information.

Rouge Valley Conservation Centre guided theme walks

- Nov. 10 - Native history. Walk begins at 1 pm and lasts for about 2 hours. Walk begins and ends at Pearse House on the east side of Meadowvale Rd. north of Sheppard Ave. East. Call 416-282-8265 for more information.



TFN Office - open Friday mornings from 9 am to 12 noon. TFN publications, crests, decals and pins as well as art and hasti-notes may be purchased.



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OTHER PUBLICATIONS

TORONTO FIELD NATURALISTS CLUB: ITS HISTORY AND CONSTITUTION, 1965\$ 2.00	TORONTO REGION BIRD CHART, 1983.....\$ 4.00
CHECKLIST OF PLANTS IN FOUR TORONTO PARKS; WILKET CREEK, HIGH PARK, HUMBER VALLEY, LAMBTON WOODS, 1972\$ 2.00	A GRAPHIC GUIDE TO ONTARIO MOSSES, 1985\$ 4.00
TORONTO THE GREEN, 1976 Metropolitan Toronto's important natural areas are described and recommendations given for their conservation and management; includes maps, bibliography and index\$ 8.00	GUIDE TO TORONTO FIELD NATURALISTS' NATURE RESERVES, 2001\$ 4.00
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Survey #3 - Chapman Valley Ravine, 1975	TORONTO CHECKLISTS (birds, other vertebrates, butterflies, other invertebrates, mosses, other plants)each 50¢
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Survey #6 - Burke Ravine, 1976	NO G.S.T.
Survey #7 - Taylor Creek-Woodbine Bridge Ravines, 1977	All publications may be ordered from Toronto Field Naturalists, 2 Carlton St., #1519, Toronto, Ontario M5B 1J3. (Add \$2.00 per item for postage and handling).
Survey #8 - West Don Valley, 1978	
INDEX OF TFN NEWSLETTERS (1938 to present).....\$10.00	

*Please note: It has always been the policy of the Toronto Field Naturalists
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\$20 STUDENT, SENIOR SINGLE

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