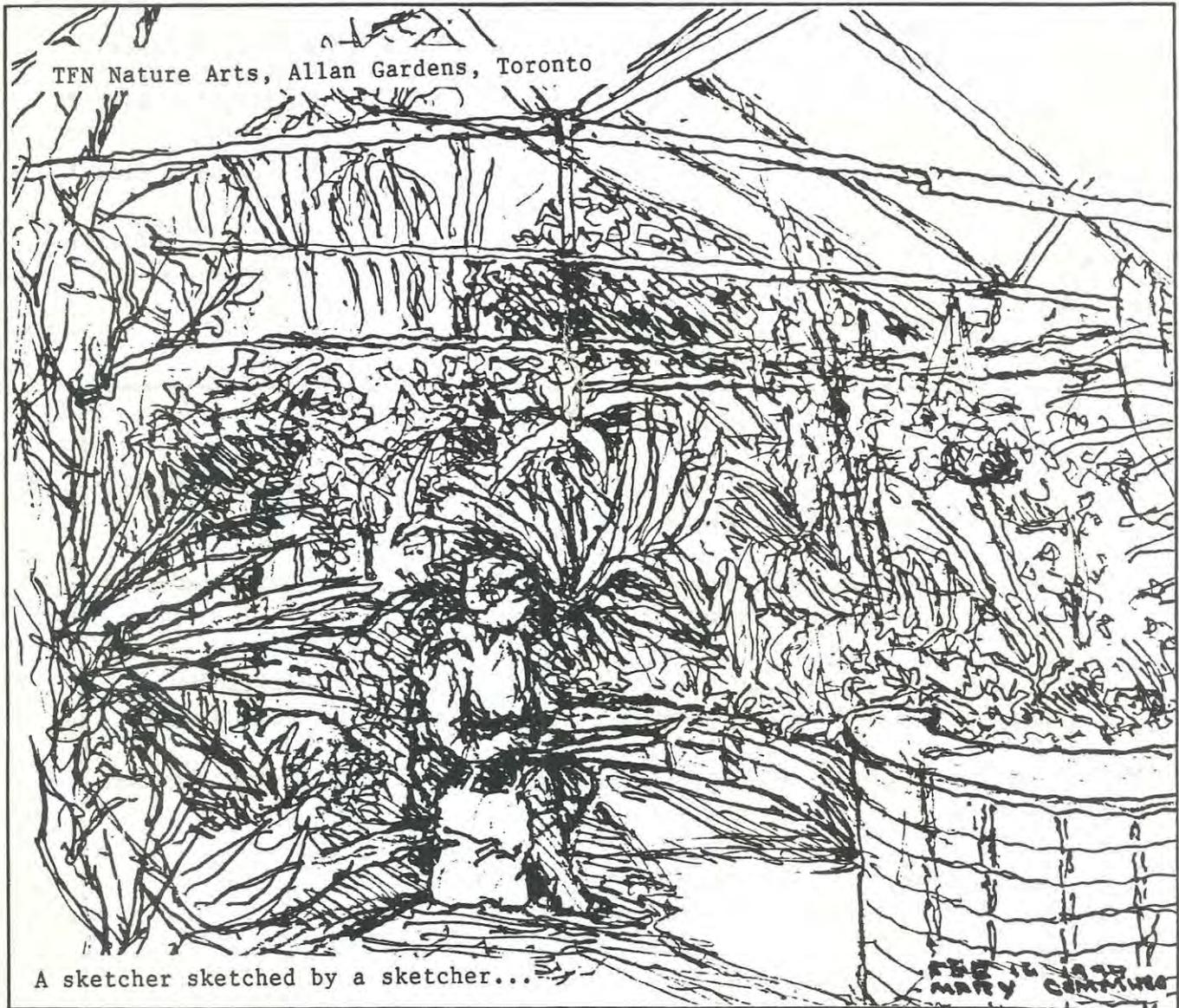


TORONTO FIELD NATURALIST

Number 464

December 1996



TFN Nature Arts, Allan Gardens, Toronto

A sketcher sketched by a sketcher...

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TFN MEETINGS

Sunday, December 1, 1996 - OLD GROWTH CEDARS OF THE NIAGARA ESCARPMENT,
at 2:30 pm

in the Northrop Frye Hall
Victoria University

73 Queen's Park Cres. East

- In his work with the Cliff Ecology Science Research Group, Dr. Larson has made many discoveries including the great age of many of the cedar trees on the escarpment.
- + a "Social Hour" beginning at 2 pm with free coffee and juice
- + a sale of "Always Alice" cards (call 767-6149 for special orders, including Christmas Cards.)

NEXT MEETING: Sunday, February 2, 1997

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.

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
14 College St., Unit 605
Toronto, Ontario M5G 1K2

Newsletter Committee members: Helen Juhola, Diana Banville, Jenny Bull, Eva Davis
Nancy Fredenburg, Eileen Mayo, Joan O'Donnell, Toshi Oikawa.



If in doubt, call the weather number 661-0123 before getting ready.

FOR ENJOYMENT OF WINTER OUTINGS



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 393-4636.
 Check the weather by calling 661-0123 so you will know what to wear on outings which
 go rain or shine.

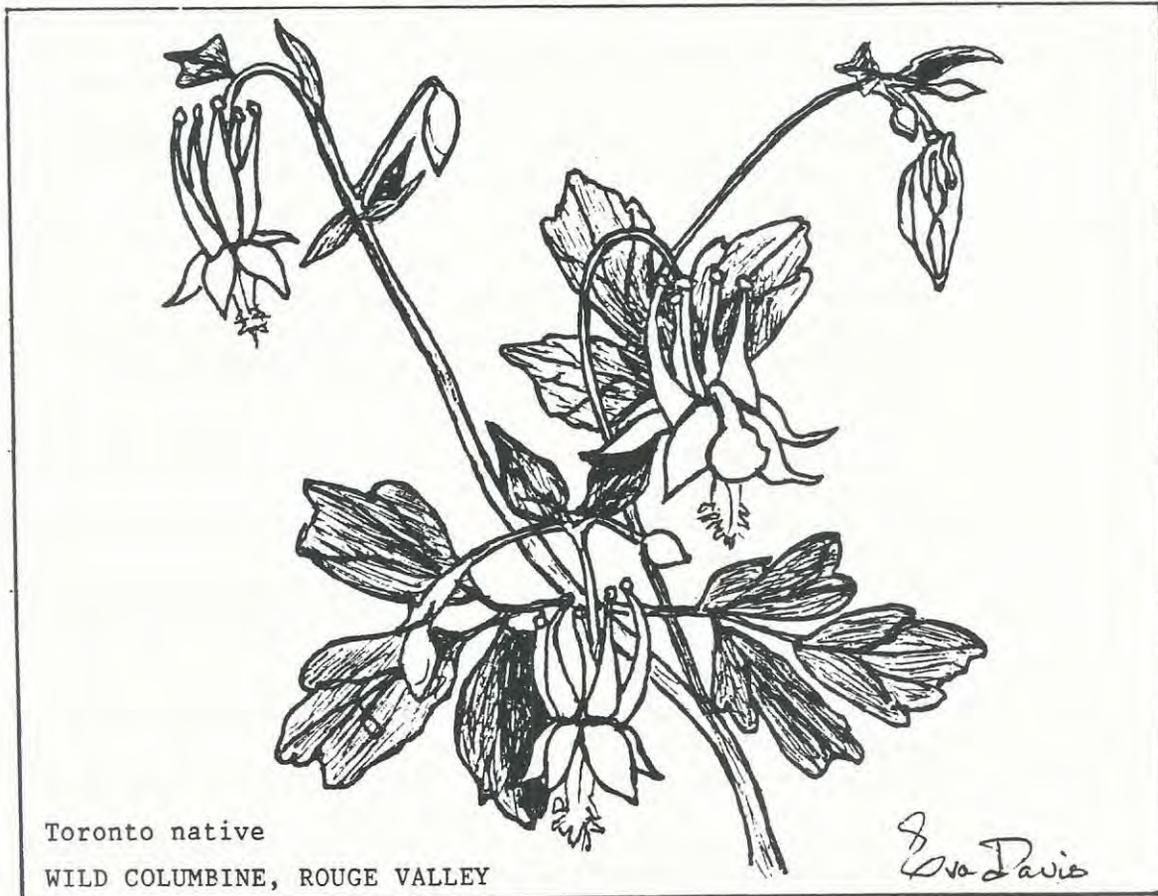
- Wednesday EDWARDS GARDENS - trees Wilket Cr., North York
 Dec. 4 Leader: Bill Morsink
 10 am Meet at the southwest corner of Lawrence Ave. East and Leslie
 St. Lunch optional.
 We will be looking at mostly woody evergreen plants, so bring your notebook
 and pencil.
- Saturday ROYAL ONTARIO MUSEUM - nature arts Toronto
 Dec. 7 Leader: Erik Wiersma
 10:30 am Meet at the museum entrance on the west side of Queen's Park
 just south of Bloor St. West.
 \$ entry Bring your sketching materials. Stools are available. We will have lunch
 fee together so bring your photos and recent art work for the group to see after
 the morning sketching.
- Saturday HUMBER BAY PARK - nature walk Lakeshore, Etobicoke
 Dec. 7 Leader: Boris Mather
 1 pm Meet at the park entrance on the south side of Lake Shore Blvd.
 West opposite Park Lawn Rd.
 This is a great place to see wintering waterfowl and views of Toronto.
 Bring binoculars and notebooks.
- Sunday BLACK CREEK - nature walk Humber tributary, York
 Dec. 8 Leader: Gavin Miller
 2 pm Meet at the southeast corner of Eglinton Ave. West and Black
 Creek Dr.
 This is the ninth walk along Black Creek in this series. Today we will
 follow the creek south to where it crosses under Jane St.
- Tuesday GARDINER MUSEUM - nature arts Toronto
 Dec. 10 Leader: Leslie Mirylees
 10:30 am Meet at the museum entrance on the east side of Queen's Park
 just south of Bloor St. West.
 \$ entry Bring your sketching materials. Stools are available. Special exhibits
 fee on view. We will be having lunch together at the ROM where we will be
 viewing our most recent photos and sketches.
- Sunday BURKE BROOK - urban nature West Don tributary, Toronto
 Dec. 15 Leader: Don Cross
 2 pm Meet at the northeast corner of Lawrence Ave. West and
 Avenue Rd.
 This is another joint outing with the North Toronto Green Community to
 follow the course of minor and often buried creeks .



DECEMBER OUTINGS (cont'd)

- Wednesday ART GALLERY OF ONTARIO - nature art show Toronto
 Dec. 18 Leader: Susan Weiss
 6 pm Meet at the entrance to the Art Gallery on the south side of
 Dundas St. West just west of McCaul St.
 The Art Gallery has free admission on Wednesday evenings. The art of
 Paterson Ewen called "Earthly Weather/Heavenly Skies" is on display.
- Saturday DOWNTOWN - urban geology Toronto
 Dec. 21 Leader: Ed Freeman
 1 pm Meet at the southeast corner of Yonge St. and Queen St.
 This walk will be partly underground and partly above ground as we are
 shown some of the materials with which our city is built and learn how we
 have changed the landscape.
- Saturday ASHBRIDGES CREEK - human & natural history Toronto
 Dec. 28 Leader: Ian Wheal
 2 pm Meet at the Greenwood subway station.
 We will be walking south along streets looking for the remains of this
 "lost creek".

▷



Toronto native
 WILD COLUMBINE, ROUGE VALLEY

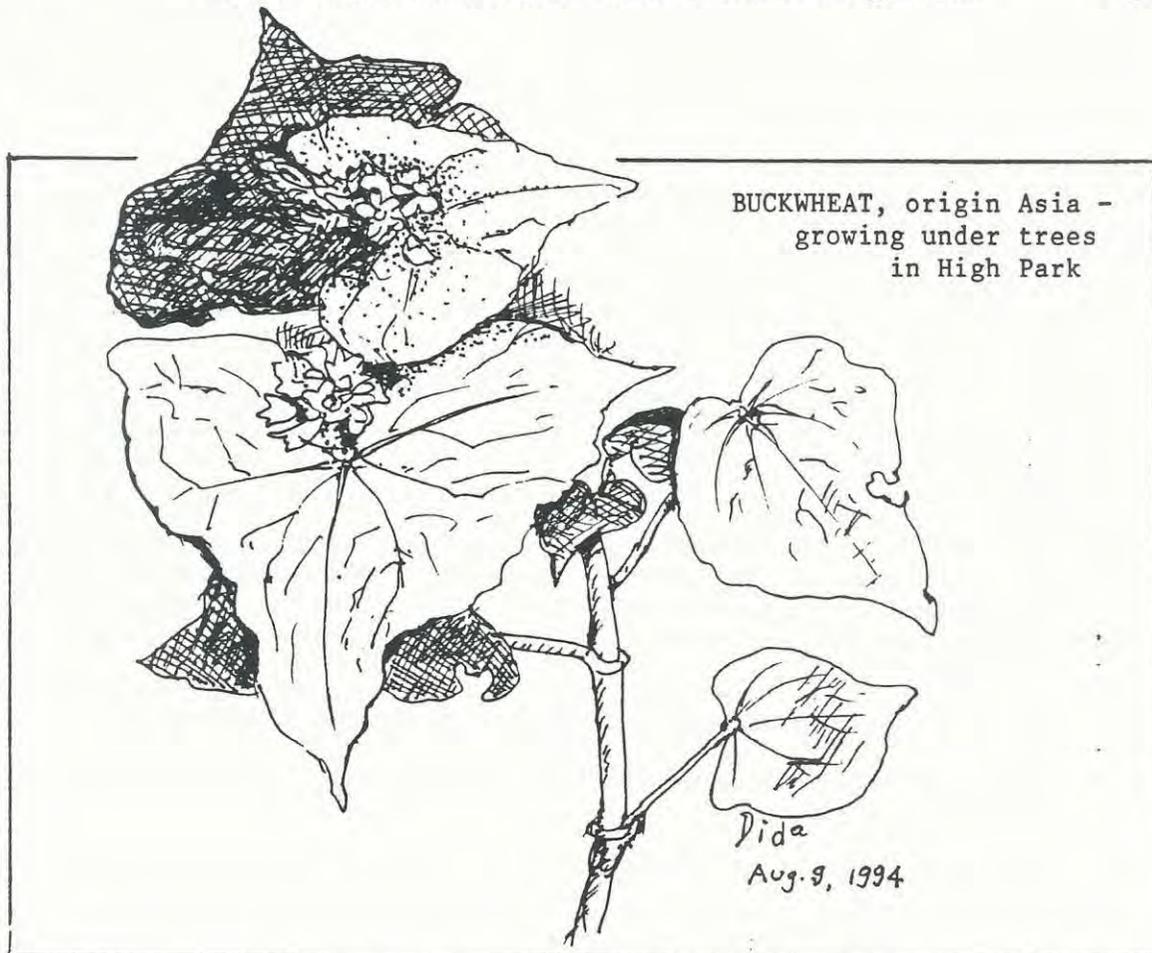
Eva Davis

OUTINGS (cont'd)

- Thursday EARL BALES PARK - nature walk West Don, North York
 Jan. 2 Leader: Maureen Allain
 10:30 am Meet at the Community Centre in Earl Bales Park on the east side of Bathurst St. south of Sheppard Ave. West. Bring lunch. This large park contains many habitats for us to explore.
- Saturday ALLAN GARDENS - nature arts Toronto
 Jan. 4 Leader: Mary Cumming
 10:30 am Meet at the entrance to the buildings on the south side of Carlton St. east of Jarvis St. We will be photographing, drawing, and painting Christmas flowers which will still be on display. Bring a stool and supplies. During lunch at College Park we will view our most recent photos and drawings.
- Wednesday HIGH PARK - nature walk Toronto
 Jan. 8 Leader: Louise Orr
 10:30 am Meet at the park entrance on the south side of Bloor St. West opposite High Park Ave. Bring lunch. This large park with its many habitats including Grenadier Pond is always a worthwhile place to visit for those interested in seeing birds and native plants.
- Sunday BLACK CREEK - nature walk Humber tributary, York
 Jan. 12 Leader: Ian Wheal
 2 pm Meet at the northeast corner of St. Clair Ave. West and Weston Rd. On this tenth walk in a series along Black Creek and its tributaries we will explore Lavender Creek with members of the Black Creek Project.
- Tuesday LAKESHORE - nature walk Toronto
 Jan. 14 Leader: George Bryant
 9:30 am Meet at the foot of Leslie St. Morning only. As the spit is closed on weekdays we will be walking instead along the shore west of the spit. This is a good place for seeing wintering waterfowl.
- Saturday LESLIE STREET SPIT - birds lakeshore, Toronto
 Jan. 18 Leader: Ross Harris
 9 am Meet at the foot of Leslie St. Bring lunch and a hot drink and dress warmly. Not only is the spit a good place to see wintering ducks, but often owls and hawks hide among the shrubs now growing on the spit. Bring binoculars and notebooks.
- Sunday BURKE BROOK - urban nature West Don tributary, Toronto
 Jan. 19 Leaders: Pam Bell & Don Cross
 2 pm Meet at the southeast corner of Mt. Pleasant Rd. and Blythwood Rd. This is a joint outing with the North Toronto Green Community to explore the last stretch of Burke Brook and find where it meets the West Don River.

JANUARY OUTINGS (cont'd)

- Wednesday CABBAGETOWN - nature walk Toronto
 Jan. 22 Leader: Mazette Best
 10:30 am Meet at the southeast corner of Winchester St. and Sumach St.
 This area includes the Necropolis Cemetery with its fine collection of
 trees and the Riverdale Animal Farm as well as many interesting lanes
 and views of the Don Valley. Morning only.
- Saturday FISHERVILLE CREEK - nature walk West Don tributary, North York
 Jan. 25 Leader: Sandy Cappell
 2 pm Meet at the northwest corner of Steeles Ave. West and New
 Westminster Dr., west of Bathurst St.
 We will be following the creek south to where it meets the West Don River
 in G. Ross Lord Park looking for birds and learning to identify plants in
 winter.
- Tuesday ROYAL ONTARIO MUSEUM - geology Toronto
 Jan. 28 Leader: Kathleen Kemp
 6 pm Meet at the entrance to the museum which has free admission
 on Tuesday evenings (west side of Queen's Park, south of
 Bloor St. West).
 We will learn about minerals and have a tour of the gem room. □



PRESIDENT'S REPORT

Back in the 1980s, the Metro Toronto and Region Conservation Authority (MTRCA), together with the planning departments of affected municipalities, relevant provincial agencies and interested conservation groups, set out to create a Comprehensive Basin Management Strategy for the Rouge River watershed. The idea-- a very ambitious one--was to take a pro-active ecosystem approach to land-use planning in the Rouge basin. This comprehensive planning exercise was to proceed sub-watershed by sub-watershed, and to be based on the ecological and environmental planning considerations. It was to set out, before any specific developments were even contemplated, just what kinds of development (if any) should go where. This approach contrasts with the usual reactive approach to planning in which the initiative rests with developers, and proposed developments are considered on a case-by-case basis.

Alas, it soon dawned on the participants that the original idea of a truly pro-active, comprehensive ecological watershed plan was too ambitious. There is a practical reason why planning proceeds as it does. Proponents (i.e. developers) pay for environmental and planning studies; the cost of these studies is just part of the up-front cost of development. Developers could not be made to foot the bill for a study of some area that nobody is currently interested in developing, a study that might find that no development should occur there. And even in those retrospectively golden pre-Harris days, neither the MTRCA nor the municipalities nor even the province was willing or able to pay for such a project either.

Nevertheless, interest in protecting the Rouge continued to burgeon, and the Rouge Park was created. Planning for the Rouge is going ahead, albeit in a somewhat more piecemeal fashion than was envisioned in the 1980s. South of Steeles Ave. the park is more or less a reality, at least on paper. Right now, plans for a trail system are being put together (more on that in the future). North of Steeles the character of the valley system changes--the valleys tend to become smaller, less well-defined, and less "natural" in character, and they pass through more privately owned lands. The Rouge Park planning process is just now beginning to engage in consultations to figure out what the Rouge Park north of Metro will be all about. Tying the whole thing together, and focusing to a large extent on aquatic habitats (see my column in the November TFN), is the MTRCA's recently adopted "Rouge Watershed Natural and Cultural Heritage Implementation Program". This program is in some ways the upshot of all the watershed level planning studies of the Rouge since the 1980s. Its top four priorities are as follows:

- i) the consolidation of all existing archaeological collections for inventory, cataloguing and assessment;
- ii) the re-establishment of vegetation, particularly in riparian zones;
- iii) the removal of in-stream barriers to fish migration; and
- iv) the improvement of water quality/quantity.

▷

PRESIDENT'S REPORT (cont'd)

The program also identifies a number of sub-watersheds or sections of streams that are priorities for "rehabilitation". The priority areas that fall within Metro are the Lower Rouge marshes and the Morningside Tributary. An overall concern is the lack of riparian vegetation, especially in the reaches north of Metro. A 1995 study found that 205 km. of the Rouge and its tributaries--31% of the total length of streams in the watershed--lacked riparian vegetation. On Little Rouge Creek alone, 63 km. are unvegetated. A high priority, then, is restoring stream-bank vegetation, especially in the headwaters and other reaches that provide potential habitat for cold-water fish species such as Brook Trout. The 1995 study also located 50 in-stream barriers to fish migration, including several dams and ponds in Markham. MTRCA plans to begin removing or "mitigating" these barriers over the next two years.

The Rouge Watershed Natural and Cultural Heritage Implementation Program is budgeted at between seven and fifteen million dollars over the next three years. Though most of this will be spent outside of the Rouge Park's Scarborough heartland, it is an investment in the ecological integrity of the Rouge system as a whole. Let us hope that it is well spent. Let us also hope that the good done by spending on the restoration of disturbed and degraded parts of the Rouge will not be offset by the effects of spending on hard trail construction and "parkification" in those parts of the Rouge valley within Metro that are at present relatively wild and undisturbed.

Finally, on the topic of MTRCA ecological restoration projects, TFNers will be interested to hear that plans to create wetlands and improve aquatic habitat in Tommy Thompson Park (the Leslie Spit) are set to get off the ground this fall and continue next spring. If you see crews dumping rubble, logs and brush in the "lagoons", be advised that this is not illegal fill disposal, but is the creation of "aquatic habitat structural diversity" (i.e., making homes for fish, turtles and other critters). There are also plans to salvage aquatic plants that would be done in by development elsewhere on the waterfront and transplant them to these new wetlands. It will be fascinating to observe how these efforts actually affect the ecological succession and community structure in some of the more barren lagoons. In the meantime, it will also be important to keep an eye out to ensure that the work does not disturb the habitat of rarities that have already established themselves on the Spit.

Allan Greenbaum

□

...is it true that the only lesson history teaches us is that we never learn from it?

from a review of "Green Imperialism: colonial expansion, tropical island Edens and the origins of environmentalism 1600-1860" by Richard H. Grove, Cambridge University Press, (revelwed by Marcus Colchester in BBC WILDLIFE, Vol. 14, No. 5, May 1996

KEEPING IN TOUCH

Oct. 10, 1996

Thank you very much for making TFN part of Ontario Hiking Day and the High Park Harvest Festival. We were blessed with great weather and a good flow of people, many of whom are totally oblivious to what the outdoors and nature has to offer. If even a small number added these to their lifestyles, our combined presence would be a success. We look forward to working with you again.

Peter Heinz
Vice-President
Hike Ontario

▷ Comment: Anyone wanting to help with TFN displays should call Sandy Cappell at 663-7738. We are always in need of members willing to attend displays for a few hours. It's a good way to meet other members (we try to arrange for two people for each shift), and to help introduce others to the club. ▷



KEEPING IN TOUCH (cont'd)

Oct. 23, 1996

Hello fellow nature lovers!

Do you hate pesticides as much as I do?

If so, why not write your local politicians and bureaucrats to let them know how you feel. I have sent the following letter to my local Director of Parks, city and metro councillors and mayor. Feel free to use it as a guide when writing your own letters. For more information on the cosmetic use of pesticides in Metro Toronto please visit or call the Toronto Environmental Alliance at 122 St Patrick Street, 596-0660.

Dear _____ :

I am writing to express my disapproval with the cosmetic use of pesticides in the City of _____. I believe that spraying parks, playing fields, roadsides and other greenspaces with chemical pesticides is both unnecessary and unhealthy.

The practice is unnecessary because turf grass can be maintained organically. Overseeding with pest and disease resistant grass varieties, mowing high with a sharp blade and fertilizing in the fall with a slow-release organic fertilizer are some of the golden rules of organic lawn care.

Other cities such as Hudson, Quebec (near Montreal), Waterloo and East York have already made the switch from chemical-intensive to knowledge-intensive lawn care. What is _____ waiting for? And while we're at it, why not convert some of our huge expanses of grassy parkland into community gardens, playgrounds, butterfly gardens, wetlands or native plant communities? These options are more productive as opposed to consumptive uses of our city's greenspace.

The practice of spraying chemical pesticides is also detrimental to human health and the environment. Evidence of this is increasing every day and has resulted in warnings from the American and National (Canadian) Cancer Societies.

Here are a few of the many negative effects associated with the pesticides frequently used in Etobicoke. Please remember that it is the most innocent - children, pets and urban wildlife - which are most affected.

- 2,4-D, which is an ingredient of Killlex, has been linked to non-Hodgkin's lymphoma and prostate cancer in humans. It is an eye, skin and mucous membrane irritant and an endocrine disruptor.
- Glyphosate (Round Up) exposure is linked to eye and skin irritation, dizziness, blurred vision and other acute reactions. Contrary to claims made in television commercials, Round Up does not quickly degrade on the lawn but persists for months and travels with rain water to rivers and lakes.
- Chlorpyrifos (Dursban) is highly toxic to birds, bees, small mammals and fish.
- Diazinon (Basudin, Spectracide) irritates eyes and skin and is a known bird killer.

As a concerned citizen who has read extensively about the detrimental effects of pesticides on wildlife populations and human health, I encourage _____ to ban the cosmetic use of chemical pesticides within its boundaries. Viable alternatives do exist.

I am interested in your views on this matter and would appreciate hearing back from you.

Sincerely,

Colleen Cirillo

□

FOR READING

TREES IN CANADA by John Laird Farrar, Fitzhenry and Whiteside Limited and the Canadian Forest Service, \$40.00, 1995

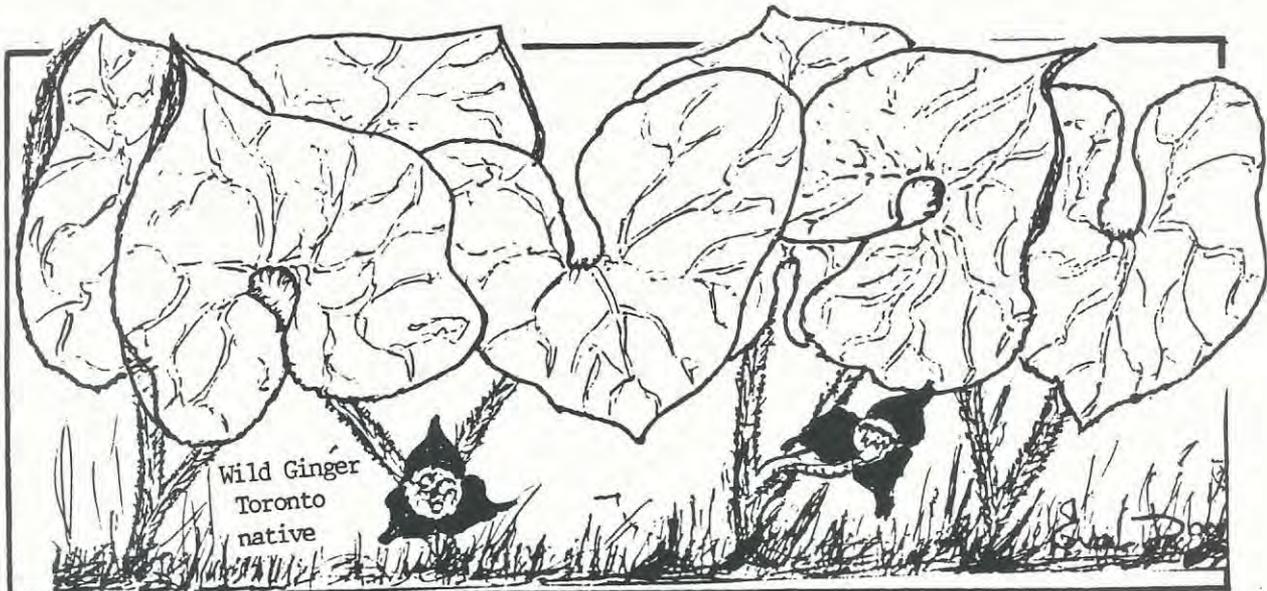
This book is the latest version of a publication that began in 1917 with the title "Native Trees of Canada". The present volume includes both native and the more common introduced or naturalized species. The present author, Emeritus professor from the University of Toronto, brings 60 years' experience to this writing, and a true labour of love spanning 10 years.

The original "Native Trees of Canada" described about 100 species and the drawings and maps were all in black and white. "Trees in Canada" describes about 300 species and includes over 100 species that are planted in Canada. About one quarter of these species, such as Scots Pine and Horse Chestnuts, have become naturalized, that is they are reproducing themselves. Naturalized trees are indicated by a double asterisk and planted trees by a single asterisk.

For native trees there are range maps that give a general idea, but the size of this country makes it impossible for small maps to be precise. Some larger shrubs are also included. The format is similar to the eight editions of "Native Trees in Canada" with a description, drawings or photographs of leaves, twigs, flowers, fruit, bark, wood, habitat and a note about the use of the tree. An addition is a little box labelled "Quick Recognition" which describes and points out differences to similar species and points of identification. The photographs are in colour and are of excellent quality. The native tree pictures and descriptions are on facing pages for each species, making identification easier. Introduced species may only have about half a page.

The book is recommended for the "Ontario Tree Atlas" Project. It is nicely bound in hard cover with excellent illustrations. The only disadvantage to its widespread adoption might be its price of \$40.00.

From a book review by Winifred Smith and June Buckingham in THE BLUE BILL, Volume #3, September, 1996. ▷



FOR READING (cont'd)

THE MUSHROOM HUNTER'S FIELD GUIDE by Alexander H. Smith and Nancy Smith Weber. Michigan: University of Michigan (1996). 316 pages, \$34.95.

As every avid amateur mycologist is well aware, you can never have too many reference guides on your bookshelf. Thus, every new field guide is eagerly awaited by an expectant horde yearning to partake of its wisdom. In this instance, the title is a much revised edition of a classic which first appeared in 1958. After going through numerous printings, it finally went out of print two years ago. This new edition is both bigger and better. It covers 50% more species (282 vs. 188 in the original), treating a wide cross-section of edible, poisonous and just plain interesting species. The photos are new and range from good to excellent, while the accompanying text is very descriptive, even explaining the meanings of the scientific names. The updated keys reflect the latest name changes as well as the extra species which have been added. A glossary plus brief sections on mushroom morphology, distribution, edibility and collecting tips round out this offering. Species coverage is best for the Northeast, Great Lakes region, Rocky Mountains, and the Pacific Northwest. I have already used this guide to identify several species which were either absent from other field guides or where the photos in those guides were unrecognisable. With only 282 species, it won't replace your favourite field guide, but is definitely worth acquiring as an aid to identification.

Richard Aaron

THE KNOPF MUSHROOM BOOK: How to identify, gather, and cook wild mushrooms and other fungi by Thomas Laessoe, Gary Lincoff and Anna Del Conte. Toronto: Alfred A. Knopf. (1996). 256 pages, \$35.00.

Take a British mushroom book, have a well-known mycologist rewrite the text for a North American audience, and voilà - The Knopf Mushroom Book. While the photos were taken in Europe, the publisher maintains this is not a problem since most of the mushrooms featured have a widespread distribution in the north temperate zone, and thus are found in North America as well. Gary Lincoff (of Audubon mushroom field guide fame) was given the task of revising the text. The book is intended for home viewing, as its oversize pages (roughly 7.5 x 11.5 inches) preclude an easy tote in the field. The book is divided into four sections. A brief introduction to fungal biology and anatomical features is followed by a well-designed visual identification key. Then comes the field guide, which constitutes the bulk of the book. For each species there is a photo, an illustration and a modest amount of written description. A final section deals with how to collect and prepare edible species, along with recipes. This book is intended primarily for beginner and intermediate mycophiles (mushroom lovers), although all levels will enjoy its colour, graphics and diverse array of information.

Richard Aaron

□

On Venezia
falling silent as the night,
snow angel-wing soft.

haiku by Arthur Wade

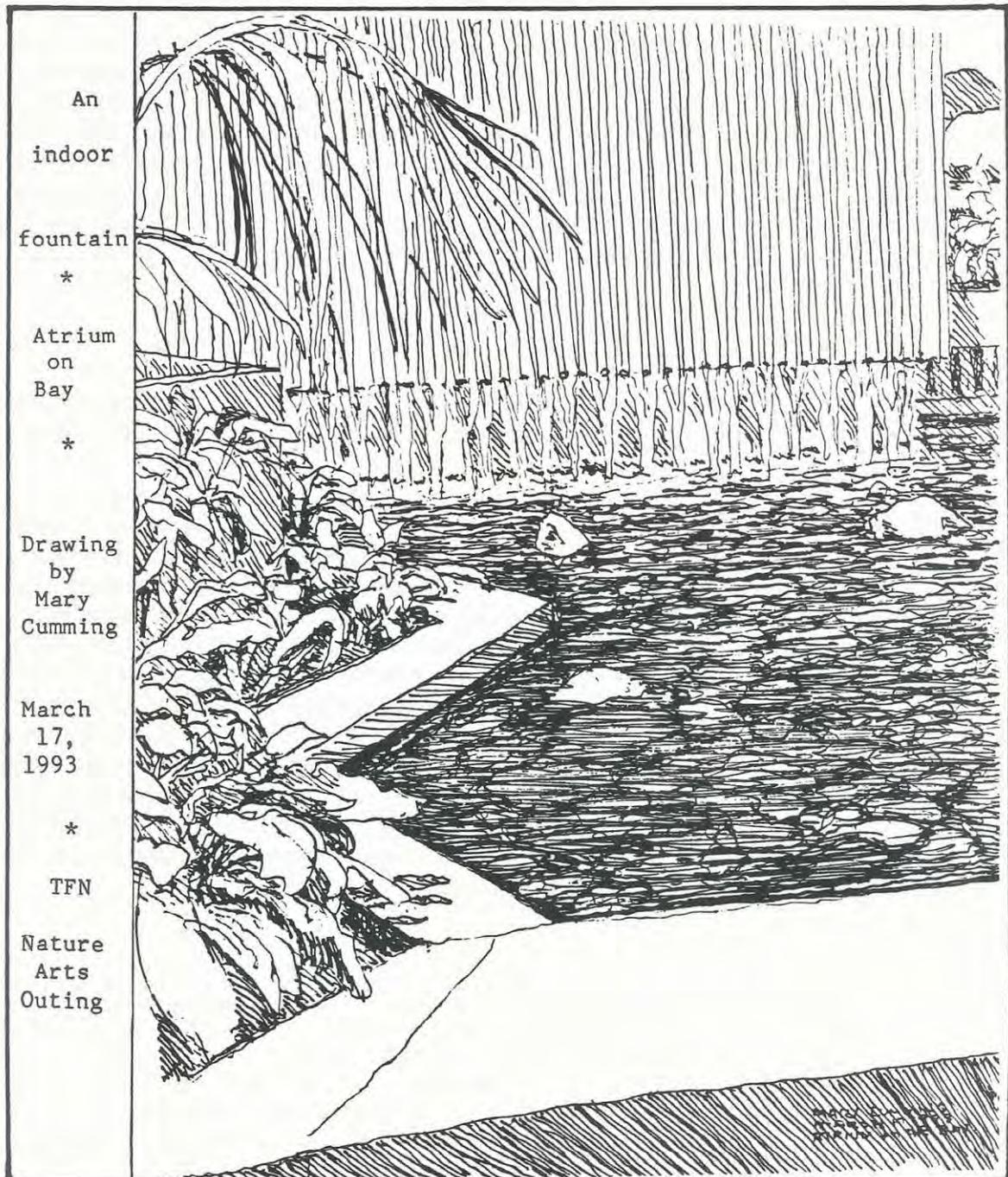
FROM THE PAST

THE FIRST BANDING OF A BIRD

On the 24th September, 1905, James Henry Fleming placed band No. 1 on the foot of a robin in his garden at 267 Rushholme Rd., Toronto. This was the first wild bird in Canada to be marked with a numbered and recorded band.

from an article by George Gamster in the TORONTO STAR, April 9, 1996

□



Projects...

ONTARIO TREE ATLAS PROJECT

So far, the Ontario Tree Atlas Project, launched last year by the Arboretum at the University of Guelph and the Ontario Forest Research Institute to record the province's tree populations, has recruited 600 volunteers to collect data. But many more are still needed to adequately complete the job by June 1998. This project is being funded by a \$250,000 grant from the Ontario Forest Research Institute, which has also endowed a gene bank for Carolinian forest species at the Arboretum.

Approximately 900 able-sighted Ontarians are needed to identify and estimate tree populations in our province. No prerequisites are required. Newsletters provide tips on tree identification and there is the possibility to participate in tree-identification workshops.

Trees have several key features that make them relatively easy to inventory:

- 1) there is a relatively small number of species to be surveyed (+/- 110),
- 2) trees are large and easy to see,
- 3) most trees can be easily and accurately identified,
- 4) generally, trees can be surveyed year round.

Volunteers are asked to survey a small section of the province (10 km X 10 km) and record as many different species of trees as possible and to provide an estimate of the relative abundance of each species (i.e., fewer than 20 trees, 20 to 100 trees, or more than 100 trees).

Some 111 species are included on the provincial list, but a volunteer in, say Ottawa, might only need to identify 35 or 40 of these because the rest are not found in that part of the province. All native species are included as well as about 20 introduced ones. Most are easily identifiable. Only 12 species in Ontario are considered difficult to identify. For these, some additional information (dealing with location, physical characteristics, and habitat) is requested. Organizers are trying to keep the process ~~easy~~ and as enjoyable as possible and to keep paper work to a minimum.

It is also possible that a species not previously known to exist in Ontario may be discovered or that populations of tree species may be found in unexpected areas, says Alan Watson, director of the Arboretum and project supervisor.

A survey area can be located near your home or cottage, or, for that matter, anywhere else in the province. Active data collection will continue until June 1998. It takes an estimated 20 to 30 hours to adequately cover a square and a volunteer may spread the survey out over two years, or complete it all in a week.

Casual observations are also encouraged, for example, when travelling outside one's designated "square". This is also a way for people to contribute to the data although they are unable to survey an entire square. Specially designed cards are available for writing down trees that have been identified, where and how many.

PROJECTS (cont'd)

▷ If interested in becoming a volunteer with the project, call: Rob Guthrie, Project co-ordinator or Alan Watson, Director, at (519) 824-4120, Ext. 3615, fax to (519) 836-1855 or e-mail to rguthrie@uoguelph.ca or awatson@uoguelph.ca

from an article by Fenja Brodo in the Trail and Landscape, vol. 30, Number 4, October-December 1996

BUTTERFLIES ARE FREE

The Canadian Wildlife Federation is conducting a coast-to-coast butterfly survey. To participate in the survey, simply spend time in your garden, a park, or by the porch light and report your sightings following the format below. You will also be helping the CWF find out which plants are the most attractive to which butterfly.

MOTH/BUTTERFLY SPECIES:

LIFE STAGE: (Circle) Adult Larva Pupa

NUMBER OBSERVED (If more than one sighted at a time):

DATE/TIME OBSERVED:

Day/Month/Year

Time (a.m./p.m.)

LOCATION:

General

Town/City

Country

Specific habitat (Field, forest, porch light, butterfly garden, etc.):

Species of plant:

REPORTER:

Name

Address

City/Town

Province

Postal Code

Age (circle one): 5-10 11-15 16-20 21-30 31-40 41-50 61-70 71+

▷ Send completed forms to Butterfly Survey, Canadian Wildlife Federation, 2740 Queensview Drive, Ottawa, Ontario K2B 1A2.

Extracted from an article by Bruce Ripley in THE BLUE BILL, Vol. 43, No. 3, September 1996

▷

I followed
and the squirrel led -
heart of the woods.

haiku by
Giovanni Malito

PROJECTS (cont'd)

KEEPING WATCH ON COUNCILS

Councillors deal with worldwide issues and cannot be experts on any one. Citizens have to do it. It's hard work but very rewarding. There are no big victories, but day to day little ones that build to something significant. You don't win many battles, but the educational process makes it worth the fight. Lois James says it's vitally important for more citizens to become watchdogs, especially with the current provincial government delegating more power to the municipal level. This local level of government must be taken extremely seriously and there must be tons of democratic input.

Hints for aspiring watchdogs - Here are some hints if you plan to be a council watchdog:

- Do your homework. You must be very well informed on issues you're addressing - at least, if not better, informed than council - and your facts must be unassailable.
- Try to get into the process as early as possible.
- Develop staying power and develop a long-term strategy. Those most successful in bringing about change work at it for years. Change comes very slowly and in most cases, it's a long, arduous fight.
- Be persistent. Don't let one defeat stop you from trying again.
- Develop a thick skin. You'll incur the wrath of councillors, citizens and others, but let criticism roll off your back.
- Rally others who support your cause, or form a local ratepayers group or coalition, to help you in your quest.
- Don't attack council members individually. Deal with them on an issue-by-issue basis and don't make criticism personal.

extracted from an article by Tracy Hanes in the Toronto Star, Scarborough Section, August 1, 1996

RESEARCH FUNDING

Do you have plans for a project on birds that needs some extra funding? The James L. Baillie Memorial Fund may be able to help. The Fund offers two types of grants: (1) for projects that involve research or education or that contribute to the preservation of Canadian birds; and (2) for a special 5-year program (1993-1997) to initiate and support migration monitoring stations (bird observatories) that monitor Canadian birds during their migrations. The Fund supports projects that involve volunteers in education, research or data collection. Support of graduate student research projects is not a priority. Individuals or organizations can apply. Grants range from \$200 to \$3,000 and average about \$1,000. Next deadline for applications is 26 January 1997. For more information and application forms write to: Secretary, James L. Baillie Memorial Fund, Bird Studies Canada, Box 160, Port Rowan, Ontario NOE 1M0 (Tel: 519-586-3531, email bsc@nornet.on.ca).

Projects...

ONTARIO'S MARSH MONITORING PROGRAM

The Marsh Monitoring Program (MMP) is a binational, volunteer-based project which was established to monitor the health of marshes in the Great Lakes Basin by surveying populations of marsh birds and amphibians during the breeding season. The MMP is a cooperative effort of the Long Point Bird Observatory, Environment Canada (The Canadian Wildlife Service and Great Lakes 2000 Cleanup Fund) and the US Great Lakes Protection Fund. The program is designed to provide information on wildlife communities in Great Lakes marshes. Emphasis is placed upon the 43 Areas of Concern (AOCs) identified as being in urgent need of rehabilitation. However, any marsh in Ontario and the eight Great Lakes states can be monitored.

The MMP was a huge success in its first year! The program's expansion into the United States and the addition of amphibian surveys were met with enthusiasm. Data have been received for over 200 routes from more than 220 volunteers and assistants to date. Forty new routes were established in 31 Areas of Concern (AOCs) in the United States and 51 routes have now been established in the 12 Ontario AOCs. Surveys were conducted on 100 routes in areas outside of AOCs in Ontario and 25 new routes were established in non-AOC areas in the US.

A total of 18,950 birds were counted on 173 routes in 1995. Many of the marsh birds seen or heard within the sample stations were both widely distributed and abundant. Red-winged Blackbird and Swamp Sparrow were the two most frequently encountered and abundant marsh nesting species in 1995. However, many abundant species such as Common Yellowthroat, Yellow Warbler and Song Sparrow were encountered at fewer stations than less abundant, but more frequently encountered species such as Marsh Wren and Common Grackle. Virginia Rails were more abundant and more frequently encountered than Soras. One species of duck, the Mallard, made the Top-10 list; it was both the ninth most abundant and most frequently encountered species. Black Tern, a species which has been identified as being at risk in many regions around the Great Lakes was the tenth most frequently encountered and fifth most abundant marsh nester.

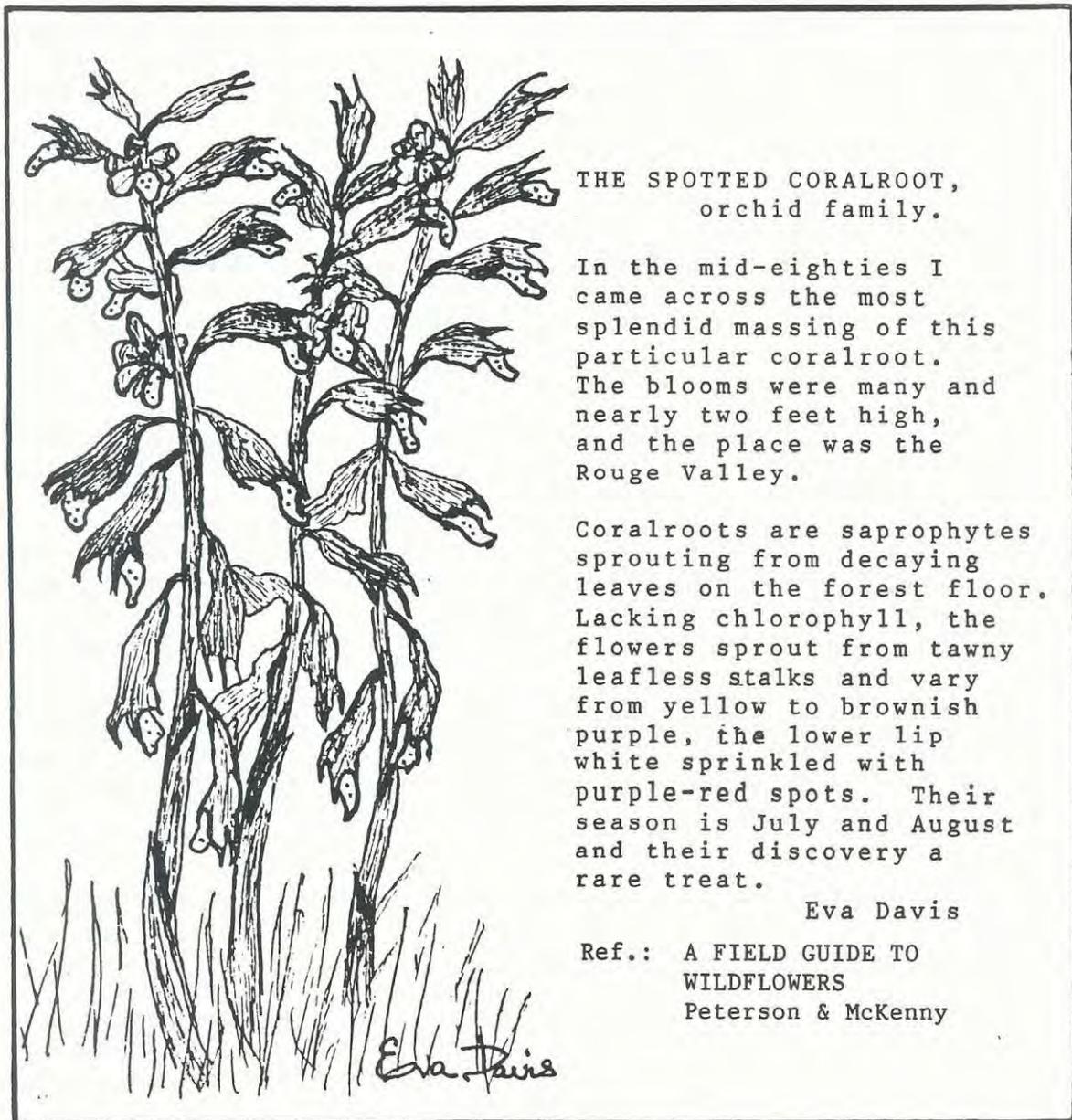
Amphibian surveys were conducted on 125 routes throughout the Great Lakes Basin. Twelve of the 14 species of frogs and toads found throughout the Great Lakes Basin were heard on MMP survey routes. The only species not heard was Blanchard's cricket frog. Four species were detected only occasionally: Fowler's toad, Cope's gray treefrog, mink frog and pickerel frog. The most abundant species encountered include the spring peeper, green frog, American toad and leopard frog. Gray treefrogs and bullfrogs were both heard on more than one-third of survey sites. The tiny, yet aptly named, chorus frog was heard at one-fourth of the sites surveyed and wood frogs, found more commonly in swamps than marshes, were heard at sixteen percent of the stations. >

PROJECTS (cont'd)

Additional volunteers are needed to establish routes, especially in the Great Lakes states. All volunteers will receive a Marsh Monitoring Program Training Kit, designed to instruct volunteers about survey protocols. A training tape is also provided to help volunteers in identifying the songs and calls of the most common marsh birds and amphibians. If you, or anyone you know, would like to participate in the program, please contact Amy Chabot, Marsh Monitoring Program Coordinator, at Long Point Bird Observatory, P.O. Box 160, Port Rowan, ON, Canada, N0E 1M0. Phone: (519)586-3531 or FAX (519) 585-3532.

from BIRD TRENDS Number 5, Fall 1996

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THE SPOTTED CORALROOT,
orchid family.

In the mid-eighties I came across the most splendid massing of this particular coralroot. The blooms were many and nearly two feet high, and the place was the Rouge Valley.

Coralroots are saprophytes sprouting from decaying leaves on the forest floor. Lacking chlorophyll, the flowers sprout from tawny leafless stalks and vary from yellow to brownish purple, the lower lip white sprinkled with purple-red spots. Their season is July and August and their discovery a rare treat.

Eva Davis

Ref.: A FIELD GUIDE TO
WILDFLOWERS
Peterson & McKenny

NO WRAPPING NECESSARY!

A membership in one of the following naturalist organizations would make a thoughtful, garbageless Christmas present. (Or you may want to make a donation at this time of year.)

THE CANADIAN NATURE FEDERATION - exists to promote the understanding, awareness, and enjoyment of nature. Its goal is to conserve the environment so that the integrity of natural systems is maintained. NATURE CANADA magazine is published quarterly. Membership: \$33, individual; \$40, family. CNF, 520 - 1 Nicholas St., Ottawa, Ont. K1N 7B7.

THE FEDERATION OF ONTARIO NATURALISTS - and its 83 community-based naturalist clubs and environmental groups work together to conserve the natural heritage of Ontario. Through education, active stewardship and conservation leadership, the FON promotes the protection of habitats and wildlife. The magazine SEASONS is published quarterly. Membership: Individual, \$34; Family, \$40; Senior/Senior Couple, \$27; Student, \$25. FON, 355 Lesmill Rd., Don Mills, Ont. M3B 2W8.

THE FIELD BOTANISTS OF ONTARIO - aim to provide education and opportunities for people to meet and pursue their interests in field botany. They strive to increase knowledge and documentation of the flora of Ontario, and offer botanical expertise to the naturalist community. Their newsletter is published quarterly. Membership fees are \$12 single and \$15 family. FBO, c/o W.D. McIlveen, R.R. #1, Acton, Ont. L7J 2L7.

ONTARIO FIELD ORNITHOLOGISTS - is an organization dedicated to the study of birdlife in Ontario. It was formed to unify the growing numbers of birders/birdwatchers across the province and to provide a forum for ideas and information among its members. (They sponsor special publications and encourage research projects.) The journal ONTARIO BIRDS and their newsletter (OFO NEWS) are each published three times a year. Membership is \$22 single, or \$27.50 family. OFO, Box 62014, Burlington Mall Postal Outlet, Burlington, Ont. L7R 4K2.

TORONTO FIELD NATURALISTS - is dedicated to encourage the study of natural history and the preservation of our natural heritage. The newsletter (THE TORONTO FIELD NATURALIST) is published eight times a year. Membership is \$30, family; \$25, single or senior family; \$20, senior or student. TFN, 605 - 14 College St., Toronto, Ont. M5G 1K2.

Joan O'Donnell

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BUYING OR SELLING NATURAL HISTORY BOOKS?

Looking for a rare, out-of-print, hard to find, used, antiquarian, or new book? Wanting to find a new home for such a book? Contact Joan O'Donnell or Ron Scovell at 744-3888 or write to Hillstar Books, 3 Sims Cres., Etobicoke, Ont. M9V 2S9.

OF MANITOBA MAPLES AND MULBERRIES

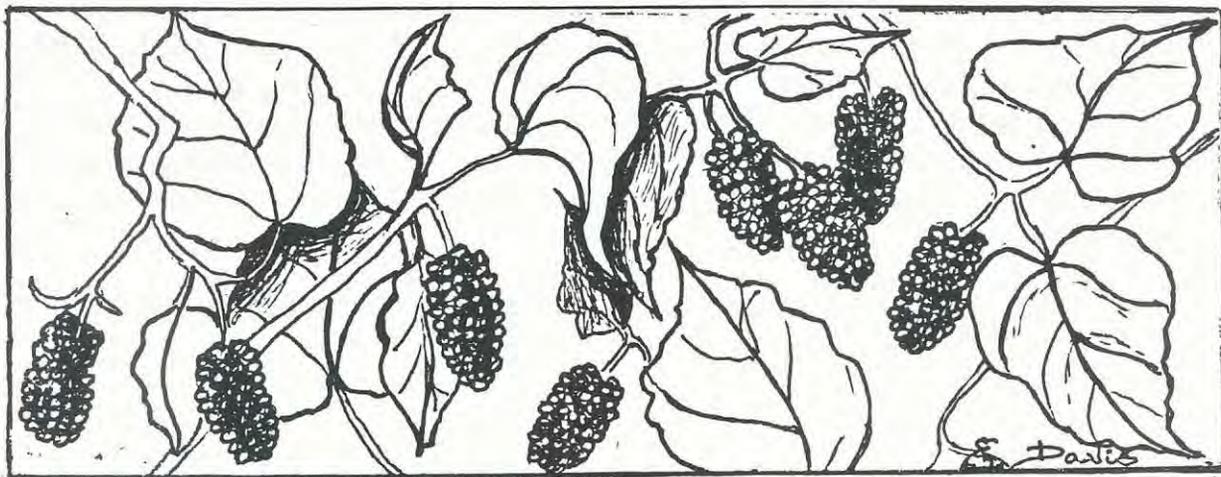
Let's take the mulberries first. Will some TFN member *please* enlighten me regarding the apparent Torontonionian disdain for mulberries? There are trees throughout the city — on private property, on public land, lining sidewalks — all seemingly disowned. Yearly they are left to spread their bounty of delicate, succulent fruit on soil and concrete. True, mulberry picking empurples the hands — so does blackberry picking. Blackberries and black raspberries are prized. Mulberries emphatically are not. Every time I find a mulberry tree flourishing on common ground, I stuff myself with whatever I can reach — often puzzling, if not scandalizing, passers-by ("Obviously, another mad woman!...").

Some people, I suppose, may find their taste insipid. But how many have *ever* tried? I had the same bewilderment on one of my rare trips south of the border in some little town, where I had to kick my way through peaches fallen from trees in front gardens--not that anyone was picking them up on the other side of the fence, either. What is this obsession with going to the misnamed supermarket? Do we feel we are not getting our money's worth with something not pesticed to the hilt? In short, what have Canadians got against mulberries?

Another bewilderment is Canadian contempt for the Manitoba maple--that "trash" tree, as I have heard it called. Apparently it brings in no money and is, accordingly, "worthless". It does, however, provide oxygen, and money cannot make that. It also grows tall and gives shade and is greenly beautiful. Some day, when we have polluted our cities to the point where the "right" trees will no longer grow in them, we might be belatedly grateful to something that absorbs whatever we fling at it, flourishes without cultivation, fertilizer or fuss, and springs up in any nook or sidewalk cranny. Indefatigable. Hardy. Burstingly optimistic. Let's hear it for these two "lowly" products of nature: the maligned Manitoba maple and the disowned mulberry tree.

Eva Davis

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THE FALLACY OF "MANAGING NATURE"

Over the last 30 years (my recallable history) humans have endeavoured to "manage" *natural* Canada. It's been given an air of righteousness. God may have created the heavens and earth but human actions suggest that only *man* can make it orderly and useful. When it comes to managing nature we in Canada certainly do a lot of it: the cod on the east coast, the salmon on the west, and the rivers in Quebec.

The death and destruction wreaked on the citizens of the Saguenay, in July, brought these thoughts about. Wise humans, wiser than God, had taken that water meandering wastefully out to sea and transformed it into a useful source of energy for industry in the region. The *humanly* ordained undertaking promised jobs and wealth for the area — and for a time it appeared to deliver. But now as Quebeckers, and the rest of Canada, stagger under the cost of this disaster (estimates up to \$1 billion) we must all question this quest for control. Even Premier Bouchard, who initially shrugged it off as "an act of God" (G & M Aug.8/96), has been convinced to appoint a panel of experts to review the system of provincial and private dams.

And what about Metro Toronto. How drastic, and potentially deadly were the measures taken in response to damage resulting from Hurricane Hazel; damage due in part to poor political moves like allowing developers to build on or near flood plains. The response to the hurricane, an effort to "manage" the natural power of water, was to alter the courses of many water ways (including Black Creek) and to encase them in concrete channels. How effective these concrete "coffins" are at controlling flooding can be debated. But they are good at: speeding up the water flow, preventing habitat for aquatic plants and animals, allowing pollution to move downstream instead of filtering it out, ~~inducing~~erosion downstream where natural stream beds still exist, and ~~causing~~ flooding downstream because they can move large volumes of water faster than the lower portion can dispose of it. Industry near Black Creek has always been a problem, but the addition of the concrete channels dramatically hastened the near death of the creek.

Thanks to organizations like the Laidlaw foundation, the Black Creek Project will soon commence a study on renaturalizing a concreted section of Black Creek. Whether there will be political will to act upon the results of our investigation is yet to be discovered; but it's a first step. Human history is filled with the obsession to control nature. Yet nature has a couple billion years of history that show it very capable of managing itself. If humans really want to control something, maybe we should start with ourselves!

from "The Editor's Corner" by Cyril Stickney in THE KINGFISHER, newsletter of the Black Creek Project, vol. 15, no. 2, Fall 1996

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COTTAGE LANDSCAPING

Twenty-five years ago, we dreamed of a cottage on Iron City Point at the mouth of Deep Bay. Early in the morning, we would go by canoe to sit and enjoy the peace of a soft sunrise. My favourite spot was on the warm bedrock slope between the mosses that filled every crevice. On top of the hill one could lie down on the moss to see the clouds.

Finally we built a road into this spot and then a cottage. Each year we would 'improve' around the cottage. First, plant that lovely bright green sedum for a patch of it on the slope. Then we needed a plant of chives at the back door close to the kitchen. The native hair grasses were too tall and wet in the morning, so we brought in a lawn mower.

Because the soil was so thin and acidic, we brought clay loam from our garden at home and added a flower bed with roses and phlox. The old hotel foundation on the property looked like a perfect site for a vegetable garden. So we ordered a load of manure. After all, it was contained and couldn't get to the lake.

Twenty-five years later my 'patch' of sedum has run amok, covering every available patch of moss or soil on the rock, and racing under the junipers into the bush. The moss, wild onions, columbine and bluebells that bloomed in the crevices are gone. Chives are everywhere that the sedum missed, marching down the rock like an army.

Our little patch of grass which we mowed is full of plantain, dandelions, thistles and yes ragweed all brought in the soil from home and the horse manure. Only where the soil is deep in some depressions has the phlox flourished. Elsewhere, it has languished and died. The vegetable garden quickly filled in with pasture grasses whose seeds were in the manure. On the leeseide of the garden twitch, crab, quack grasses and dandelions have spread rampantly through every available pocket of moss. Our mossy beds are almost non-existent. Even the junipers have filled with goldenrod and thistles wherever they can find a soil pocket.

Because we're slow learners, it has taken until the last couple of years to notice that we have destroyed so much of what we loved here. We have been making another 'city' home.

Last summer I spent many hours digging the invasive grasses and weeds from what used to be our moss beds. This summer the same. All onto the compost heap. I think I might be gaining. Can't use Roundup or we'll lose all of the moss.

With regard to the sedum and chives; chives I'm losing, sedum is a stalemate. I must have pulled ten wheelbarrow loads of sedum and hardly made a dent. Where to put it? The compost pile is a mass of luxuriant growth. Surely the dense shade in a cold, damp area should kill it? Not so. It is sneaking out from under the tarpaulin. Perhaps I can dig a huge hole and bury it? I wonder if Severn Township will notice 5 garbage bags a week until winter in the garbage pickup?

What have I learned from all of this? Forget the 'city' lawns and plants. From now on I'll plant only natives that endure in the existing conditions. I could have saved myself hours of work, many \$ and protected the landscape which so attracted us to our point. Nature does a better job than I do.

an article by Amy Darker in the WEST HUMBER NATURALISTS NEWSLETTER, Sept. 1996

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... In its simplest terms the naturalized garden is sensible gardening -- putting plants where they will prosper without artificial amenities. from 'The last word (or almost)' by Nancy Laurie in TRELLIS, Dec. 1995, Vol. 23, No. 1

IN THE NEWS

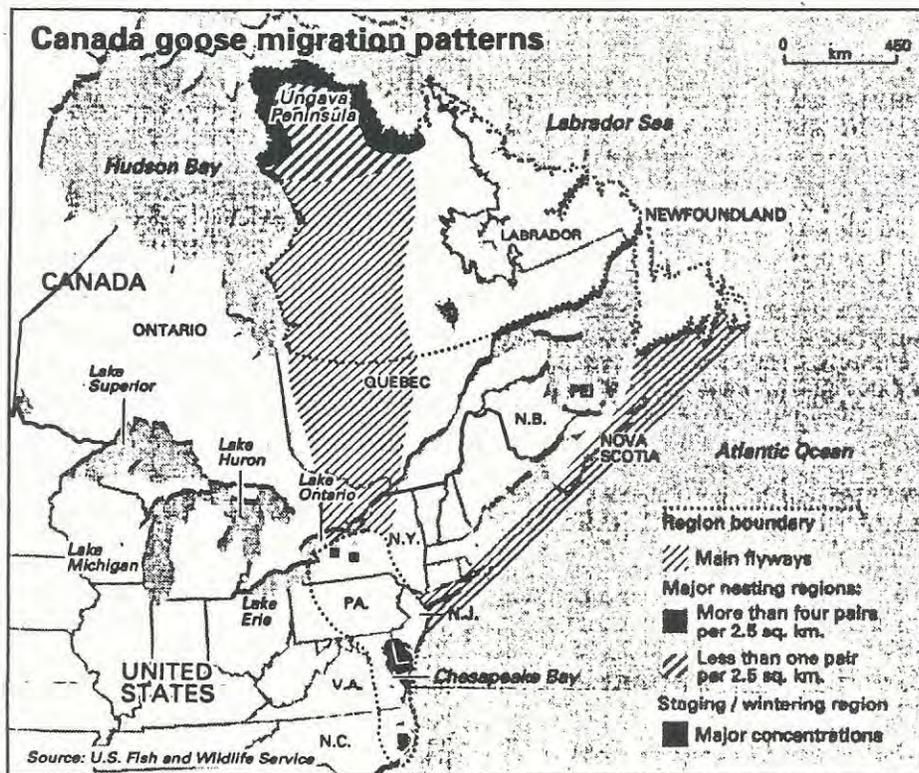
THE DECLINE OF MIGRATING HONKERS

Today two images of the Canada goose -- romantic migrant and local nuisance -- coexist. There are in truth two big populations of Canada geese in Eastern North America: the familiar year-round residents, and the long-distance fliers. They are members of two genetically distinct subspecies. In September, the migrants should be taking off from their breeding grounds in Northern Canada on the same long journey to Chesapeake Bay and other mid-Atlantic localities that their ancestors have been making for centuries. But while the resident goose population has boomed and prospered, the hardy migrants' future is clouded. The migrants from Canada, perhaps 300,000 in all, are vastly outnumbered by the permanent residents, which total nearly one million. And while the resident population continues to expand, the number of breeding pairs among the main group of migrants, in Northern Quebec, dropped by more than three-quarters from 1987 to 1995; a scant 29,000 pairs raised goslings last year compared with 130,000 eight years earlier. Biologists have attributed the decline of the migrants to hunting and unfavourable spring weather in the northern breeding grounds. The birds are shot for sport all along their migration route, and the Inuit and Cree kill them for food. This year, for the second year in a row, hunting the geese has generally been prohibited during the winter in what is called the Atlantic flyway, from Quebec to North Carolina. The Inuit and Cree have curtailed their subsistence hunting as well. As a result, the breeding population rebounded to an estimated 46,000 pairs. But the recovery, if one is under way, may be sputtering. Cold weather last spring led to a poor crop of goslings. One subspecies, *Branta canadensis interior*, fattens on the tundra vegetation of its breeding grounds on the Ungava Peninsula of Quebec just east of Hudson Bay. A less numerous subspecies, *Branta canadensis*, breeds farther east in Labrador and Newfoundland. While the migrants belong to two distinct subspecies, the residents represent a mixture of races, products of the many introductions from other parts of the continent, with the giant Canada goose, *Branta canadensis maxima*, predominant. One difficulty in managing the geese is that hunters cannot readily tell the species apart. The residents are now legally hunted in many localities as a means of population control. But how does one protect migrants while allowing residents to be shot? One option is to close the hunting season while the migrants are in the south, and open it at other times. This is not considered a perfect solution, however, and researchers have embarked on a program aimed at sorting out the two groups more precisely. The program involves affixing radio transmitters to geese in the Quebec breeding area and tracking them by satellite. In this way, researchers hope to determine where the geese stop during their migration and for how long. They might then be afforded extra protection from hunting in those areas.

extracted from an article by William Stevens in the GLOBE & MAIL, Sept. 14, 1996

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IN THE NEWS (cont'd)



New York Times Service

FRENCH REPEL PIGEONS WITH MAGNETIC FIELDS

A device that uses magnetic fields to repel pigeons, which deface buildings and monuments, has been installed at the Georges Pompidou art museum and the historic Palais Royal, in Paris, without opposition from animal protection groups generally fiercely protective of the capital's pigeon population. Until now, the undesirable creatures have either been shot or poisoned. Another advantage of this system is that it does not affect cats or other birds.

extracted from THE TORONTO STAR, August 24, 1996

TRACKING BIRDS

"Traditional bird-banding is expensive and not always effective," says Environment Canada. Its scientists in Saskatoon have developed a technique that involves analyzing the hydrogen-isotope composition of a bird's feathers and matching the pattern to that of the precipitation in its breeding and wintering sites. With feeding, the bird's feathers take on the isotopic "signature" of a region and that remains fixed. The tracking technique is also being tested on Monarch butterflies.

from THE GLOBE AND MAIL, September 2, 1996

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TORONTO'S WATER PROBLEM

Urban development north of Metropolitan Toronto is threatening the quality of the ground water that flows into the rivers and streams emptying into Lake Ontario, according to a study by Professor Ken Howard of environmental science at Scarborough College. He reports that the Oak Ridges Moraine north of Metro, a potentially sustainable source of water for the Toronto region, is threatened by rapid urbanization along the Yonge Street corridor north to Richmond Hill and Aurora. Environmental pressures currently include some 30,000 private wells, a growing number of septic tanks and rapidly increasing commercial use of water. Urbanization will bring additional impacts including leaking gasoline storage tanks, road de-icing chemicals and fertilizers and pesticides used by home owners. The towns of Caledon East, King City, Oak Ridges, Goodwood, Claremont and Pontypool are built on a moraine that extends in a ragged band from the Niagara Escarpment in the Peel region to just west of the Trent River in Durham.

from "Leading Edge", edited by Karina Dahlin, in UNIVERSITY OF TORONTO MAGAZINE, vol. 24, no. 1, Fall 1996

JAPANESE IMPRESSED BY WATER-CLEANING SYSTEM

A delegation of municipal politicians from Sagamihara, Japan, came to Scarborough last week to look at a Swedish invention that is helping to keep Lake Ontario clean. The new storm-water cleaning system was recently installed on the shores of Lake Ontario near Bluffers' Park. The Dunkersflow system consists of a series of large settling tanks, through which storm water passes before entering Lake Ontario. Pollution caused by storm water drainage is a problem in Canada but is an even larger problem in the densely populated areas of Japan, where there is almost no grass left to soak up storm water. Storm water picks up all kinds of pollution as it rolls over parking lots and roadways on its way to lakes and rivers. Scarborough, which just completed installation of the system, is the only city in Canada doing this type of storm water cleaning.

extracted from an article by Stan Josey in THE TORONTO STAR, 18 July 1996

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For years, farmers had called the hills surrounding Mesangguk [Indonesia] "tanah mati" (dead land). Now, thanks to practices like contouring and terracing, and the planting of fast-growing trees that improve the soil's fertility, the hills have become green and are called "tanah hidup" - living land.

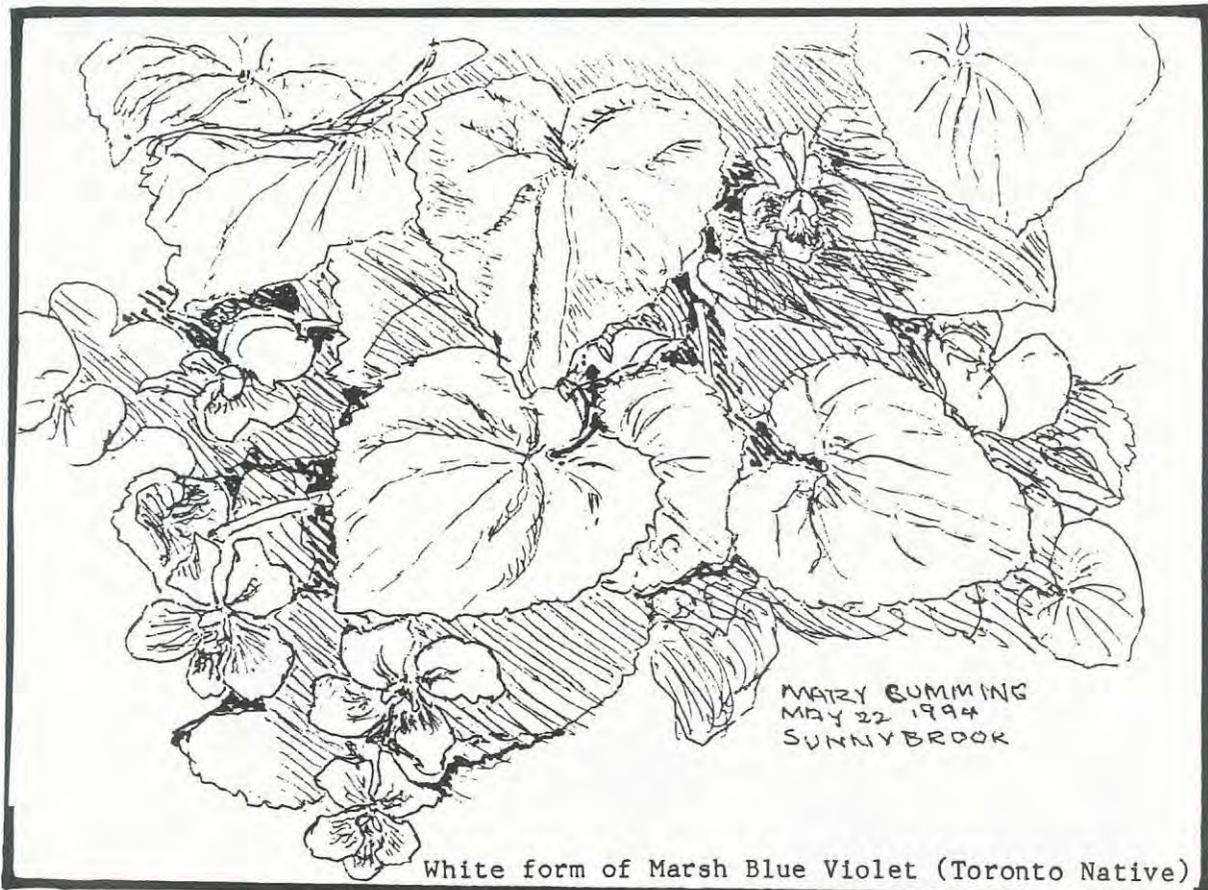
(from CARE CANADA newsletter Spring, 1989)

THE WEATHER (THIS TIME LAST YEAR)

December 1995, Toronto

The early onset of winter that began mid-November became firmly entrenched in December with average temperatures 1.5°C to 2°C below normal, being -5.1°C at Pearson Airport and -3.3°C downtown. It became especially cold on Dec. 9th when a snowfall ushered in an outbreak of arctic air with temperatures falling into the minus teens. From Dec. 10th to Dec. 31st, only four days had temperatures reaching above freezing, and that not by much. For a two-week period from Dec. 17th - 30th, temperatures stayed below freezing continually. It was the coldest December since 1989.

December was dry, and somewhat sunny -- the latter being a relative term in this darkest of months with 87.7 hours (15 hours above normal). Rainfall of 5 - 10 mm was the lightest since 1989, owing to the persistence of cold air masses. Snowfall was 26.4 cm downtown and 30.6 cm at the airport, just slightly below normal, due to Toronto's "snow shadow" effect below the Oak Ridges moraine and the Niagara Escarpment. There were two significant snowfalls: on Dec. 8th, and on Dec. 13th - 14th. Total precipitation of 35.8 mm, both downtown and at the airport, was about half the average.



White form of Marsh Blue Violet (Toronto Native)

WEATHER (cont'd)

January 1996, Toronto

January was a month of near-average temperatures in Toronto, but the normal masked a strong split between a very cold first half and a mild second half. All the while, it remained bitterly cold on the Prairies. There were no significant snowfalls at all, just recurrent flurries, Rainfall was above average due to several incidents in the second half of January.

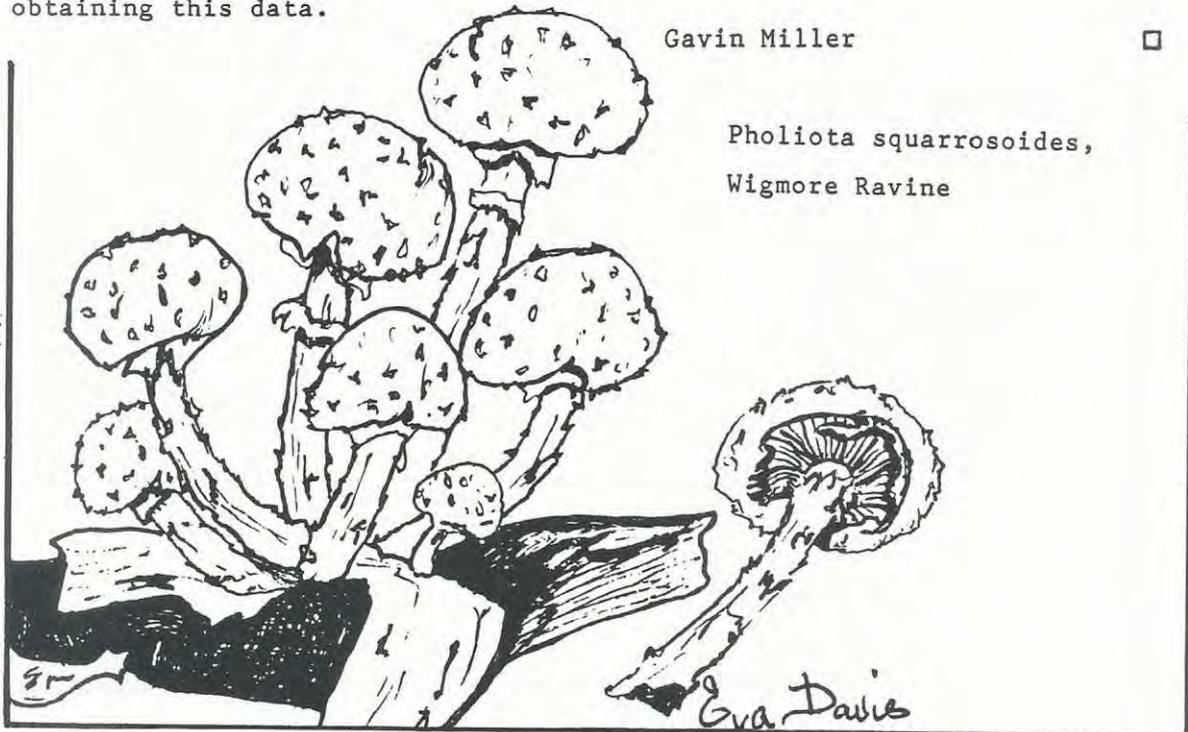
Cold began the New Year with frigid (but not record-breaking) conditions from Jan. 2nd to Jan. 7th. It dropped as low as 22.2°C at Pearson Airport on Jan. 6th, but was in the minus thirties in the Algonquin/Madawaska part of Ontario. A moderating trend intensified from then onwards, with a storm track cutting northwest of Toronto separating us from the extreme cold hovering over the Prairie provinces. Blustery conditions with spells of rain and mild temperatures came with each storm passage. It rose as high as 13.4°C on Jan. 18th. During the second half of the month, there was virtually no snow on the ground as, in spite of long periods of preceding cold weather, no snow of significance had fallen for weeks and the lingering snowcover quickly melted.

Note: Starting in January 1996, the federal government cutbacks affected the quality of data that could be obtained by the public. Sunshine hours and average windspeeds are no longer available in the monthly summaries or by ready phone call. User fees are charged for weather information by subscription or by phone, and they are hefty. Basic temperature and precipitation are still available from the "downsized" summaries that are sent to university libraries (provided the libraries continue to order them). This means that sunshine and average wind speed information will no longer be available in this TFN column, barring some other route of obtaining this data.

Gavin Miller

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Pholiota squarrosoides,
Wigmore Ravine



COMING EVENTS

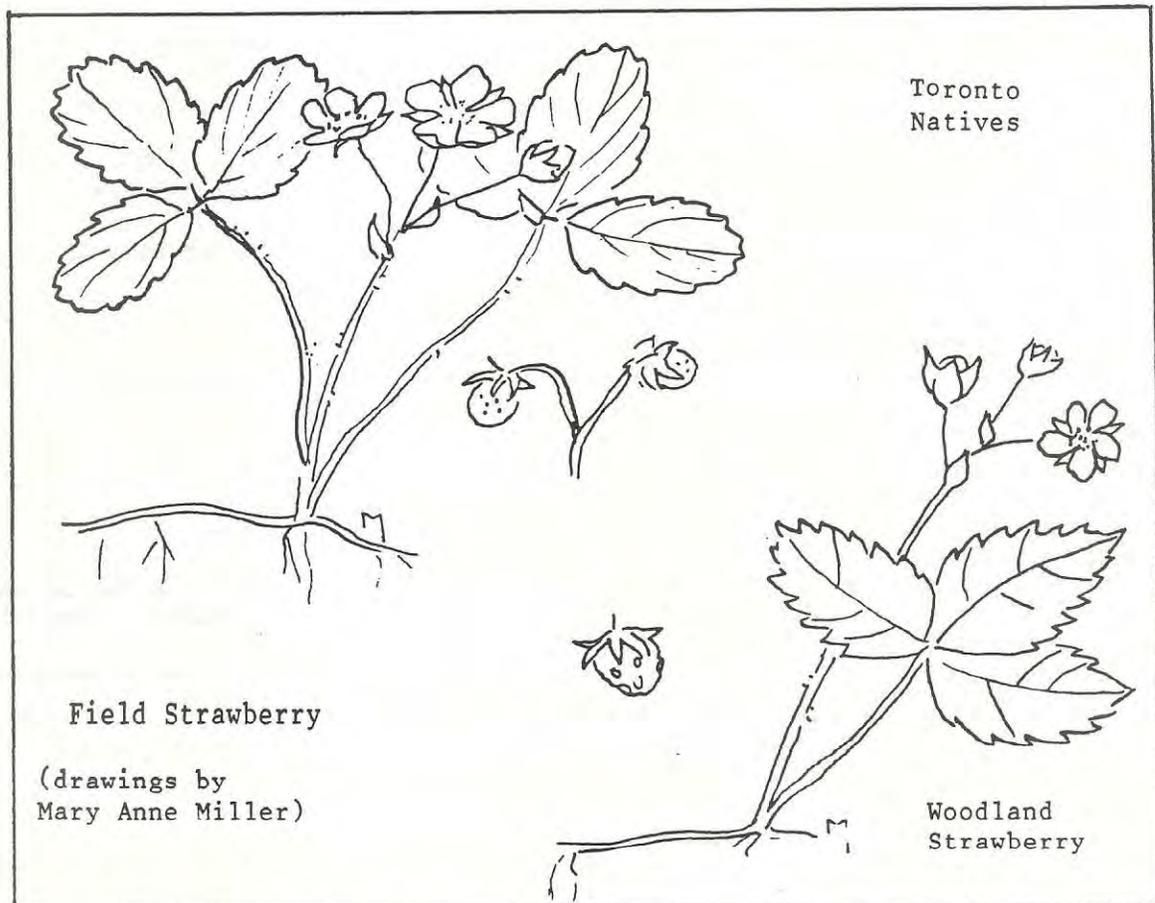
Toronto Ornithological Club - Jim Baillie Memorial Bird Walks - aimed at the intermediate birder, but beginners are welcome - free

- Sunday, Dec. 8 from 8:30 am (all day) with Jean Iron to see "waterfowl" at the West Toronto Lakeshore and Beyond. Meet in the parking lot at Humber Bay Park East. Bring a lunch. Carpool if necessary. [No outings of TOC until February.]

Toronto Christmas Bird Count - Sunday, Dec. 22. Contact Alfred Adamo at 905-238-5166. Cost: \$5.00.

Ontario Science Centre - Dec. 5 to 7 - The Earth System: Geology lessons for our future - Twenty-two distinguished speakers from around the world will present perspectives on the Earth, from its celestial origins, through all of its varied biological, geological and atmospheric history, to the challenges which face the planet now and in the future. For more information contact Vic Tyrer at 696-3255.

Natural History Tours with George Bryant - local outings, Ontario excursions, and longer trips. To obtain a schedule, call 223-6922 or write to N.H.T. at 58 Fairmeadow Ave., North York, Ont. M2P 1W7. □



TORONTO FIELD NATURALISTS

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OTHER PUBLICATIONS

TORONTO FIELD NATURALISTS CLUB: ITS HISTORY AND CONSTITUTION, 1965\$ 2.00	INDEX OF TFN NEWSLETTERS (1938 to present).....\$10.00
CHECKLIST OF PLANTS IN FOUR TORONTO PARKS: WILKET CREEK, HIGH PARK, HUMBER VALLEY, LAMBTON WOODS, 1972\$ 2.00	TORONTO REGION BIRD CHART, 1983.....\$ 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	A GRAPHIC GUIDE TO ONTARIO MOSSES, 1985\$ 4.00
TORONTO FIELD NATURALISTS' RAVINE SURVEYS.....ea \$ 4.00	GUIDE TO TORONTO FIELD NATURALISTS' NATURE RESERVE, LEASKDALE, ONT., 1986\$ 4.00
Survey #1 - Chatsworth Ravine, 1973	TORONTO ISLANDS: PLANT COMMUNITIES AND NOTEWORTHY SPECIES, 1987\$ 4.00
Survey #2 - Brookbanks Ravine, 1974	TODMORDEN MILLS, 1987.....\$ 4.00
Survey #3 - Chapman Valley Ravine, 1975	VASCULAR PLANTS OF METROPOLITAN TORONTO, 1994 ...\$ 8.00
Survey #4 - Wigmore Ravine, 1975	TORONTO CHECKLISTS (birds, other vertebrates, butterflies, other invertebrates, mosses, other plants)each 50¢
Survey #5 - Park Drive Ravine, 1976	
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, 605-14 College St., Toronto, Ontario M5G 1K2. (Add \$2.00 per item for postage and handling).
Survey #8 - West Don Valley, 1978	

MEMBERSHIP FEES (No G.S.T.)

\$30 FAMILY (2 adults - same address, children included)
\$25 SINGLE, SENIOR FAMILY
\$20 STUDENT, SENIOR SINGLE
Tax receipts issued for donations